General Conference Information

General Program Schedule

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Indexes

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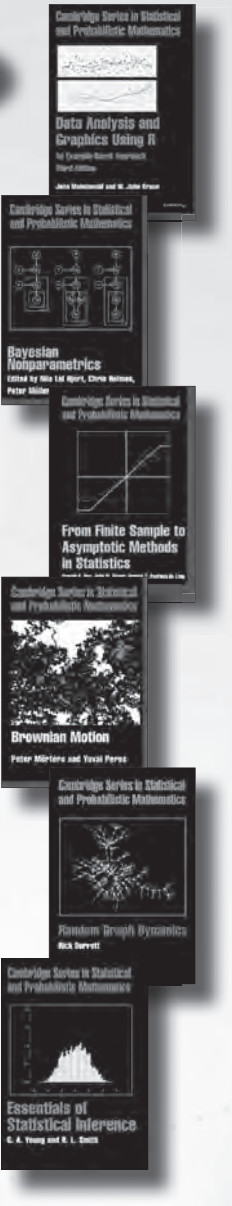

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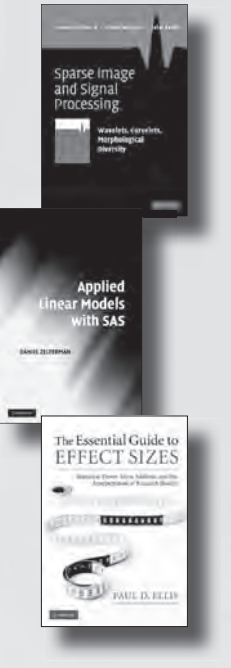

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Jim Goodnight
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President's Invited Address
"The Forecast for Predictive Analytics: Hot and Getting Hotter"

Monday, August 2, 4:00 p.m.

Brent C. James
Institute for Health Care Delivery Research

Deming Lecture
"Better: Dr. Deming Consults on Quality for Sir William Osler"

Tuesday, August 3, 4:00 p.m.

Sastry Pantula
North Carolina State University

ASA Presidential Address
"Statistics: A Key to Innovation in a Data-Centric World"

Tuesday, August 3, 8:00 p.m.

Bruce G. Lindsay
The Pennsylvania State University

COPSS Fisher Lecture
"Likelihoods with Hidden Variables"

Wednesday, August 4, 4:00 p.m.

Xiao-Li Meng
Harvard University

IMS Medallion Lecture I
"What Can We Do When EM Is Not Applicable? Self Consistency: A General Recipe for Semiparametric and Nonparametric Estimation with Incomplete and Irregularly Spaced Data"

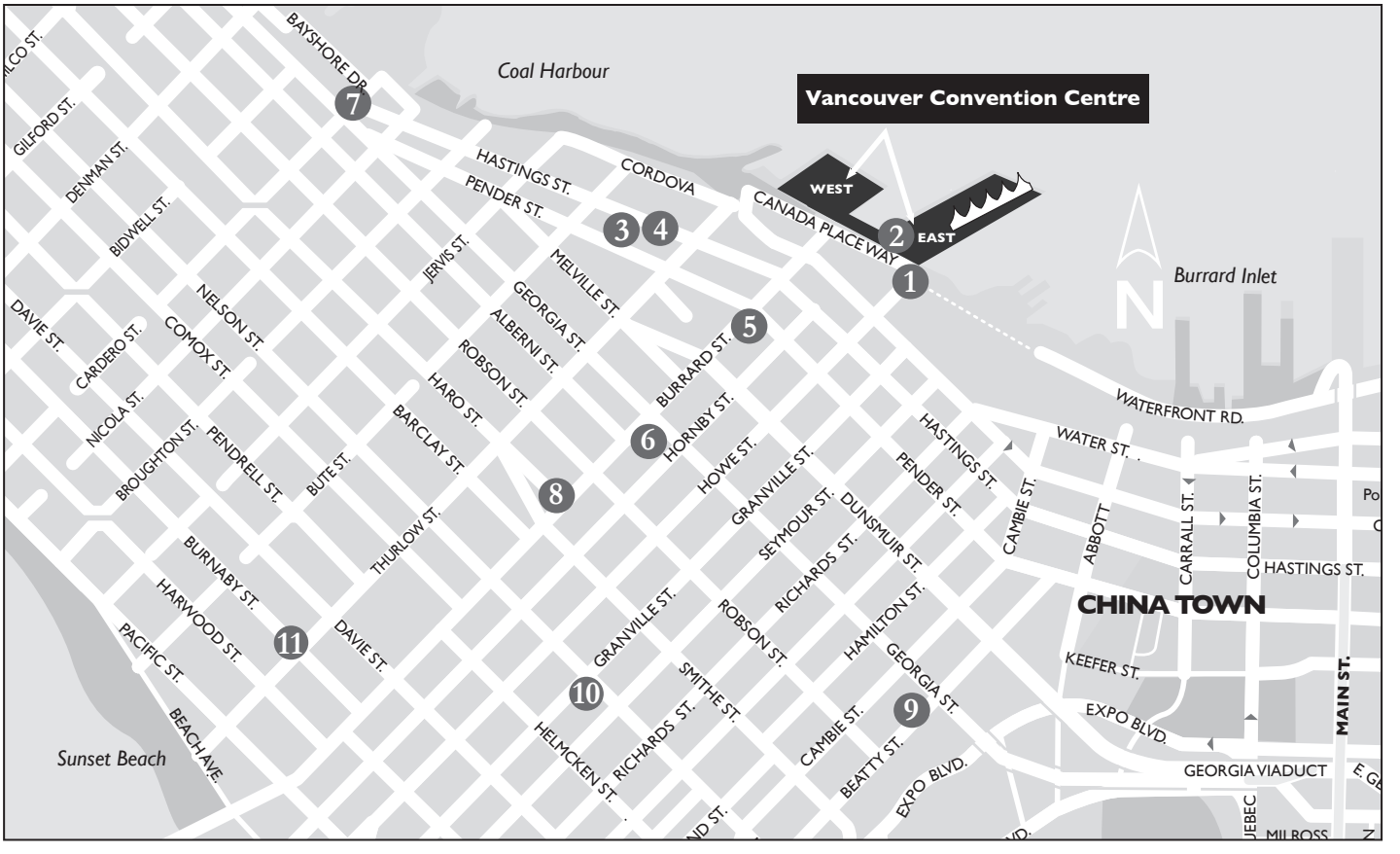
Monday, August 2, 10:30 a.m.

Edward I. George
The University of Pennsylvania

IMS Medallion Lecture II
"Discovering Regression Structure with a Bayesian Ensemble"

Wednesday, August 4, 10:30 a.m.

{ Hotel/Hostel Listing }



Conference Hotel/Hostel Listing

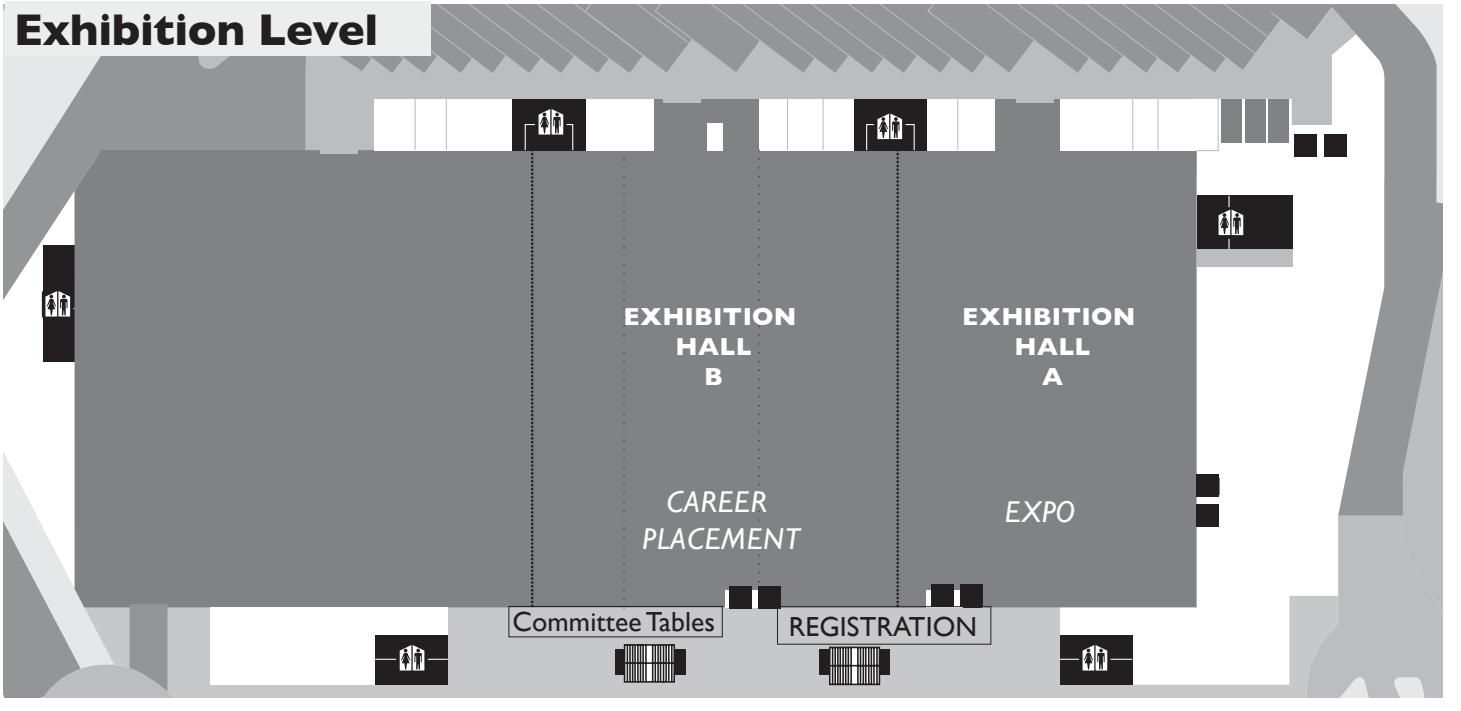
1. **Fairmont Waterfront**
2. **Pan Pacific Hotel**
3. **Vancouver Marriott Pinnacle Downtown**
4. **Renaissance Hotel Vancouver Hotel Harbourside**
5. **Hyatt Regency Vancouver**
6. **Fairmont Hotel Vancouver**
7. **Westin Bayshore, Vancouver**
8. **Sutton Place Hotel**
9. **Hampton Inn & Suites Vancouver**
10. **Hostelling International - Central**
11. **Hostelling International - Downtown**

{ Convention Center Floor Plans - West }

{ Key }

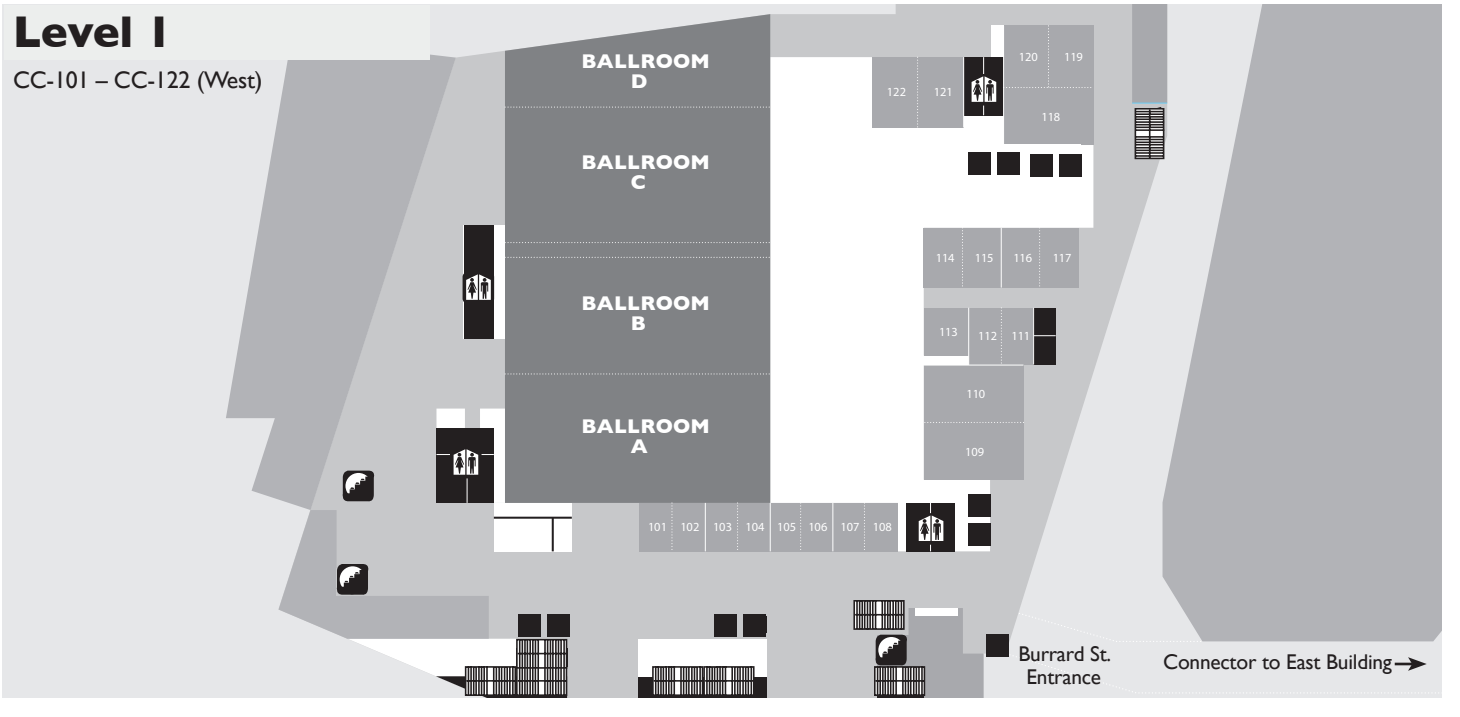
- Stairs
- Handicap Access
- Restrooms
- Concession
- Escalator
- Elevators

Exhibition Level



Level 1

CC-101 – CC-122 (West)



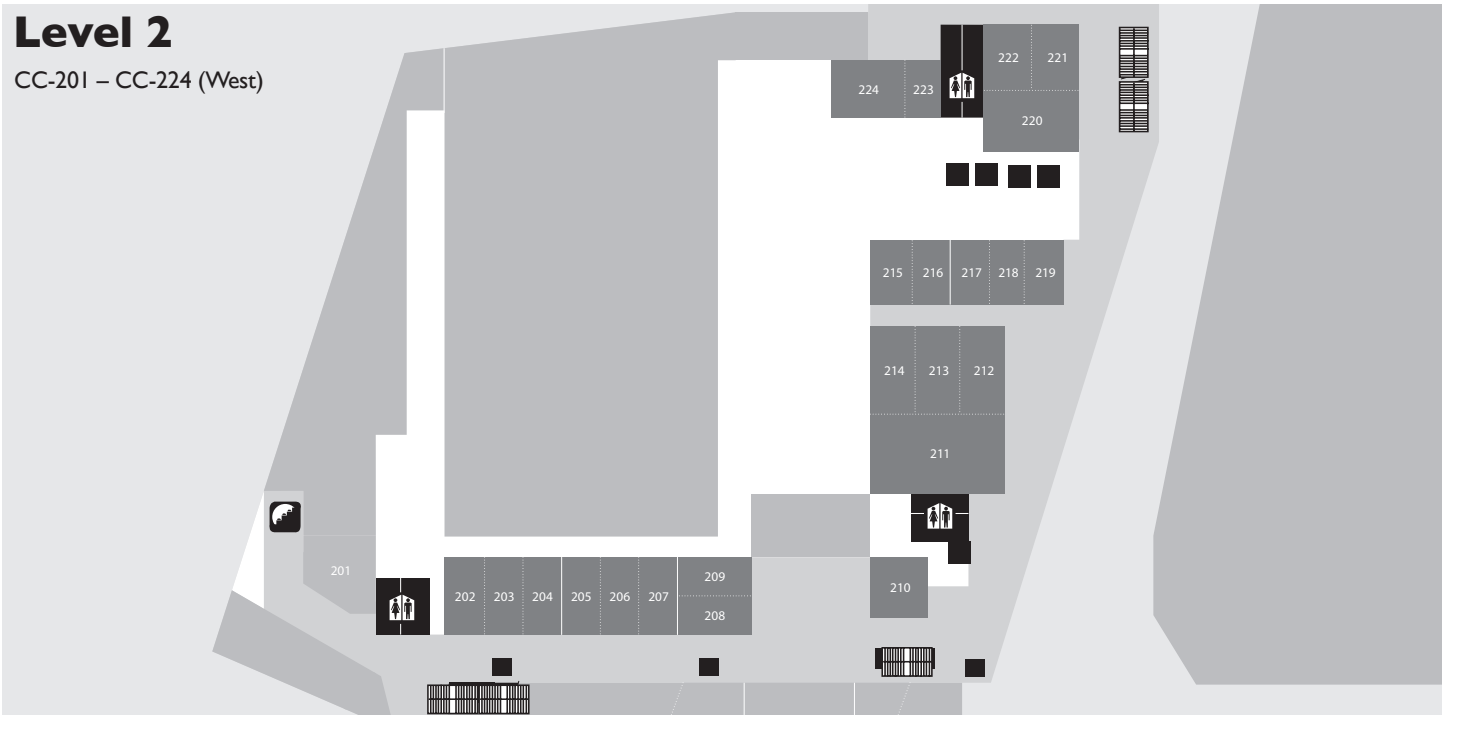
Convention Center Floor Plans - West

Key

- Stairs
- Handicap Access
- Restrooms
- Concession
- Escalator
- Elevators

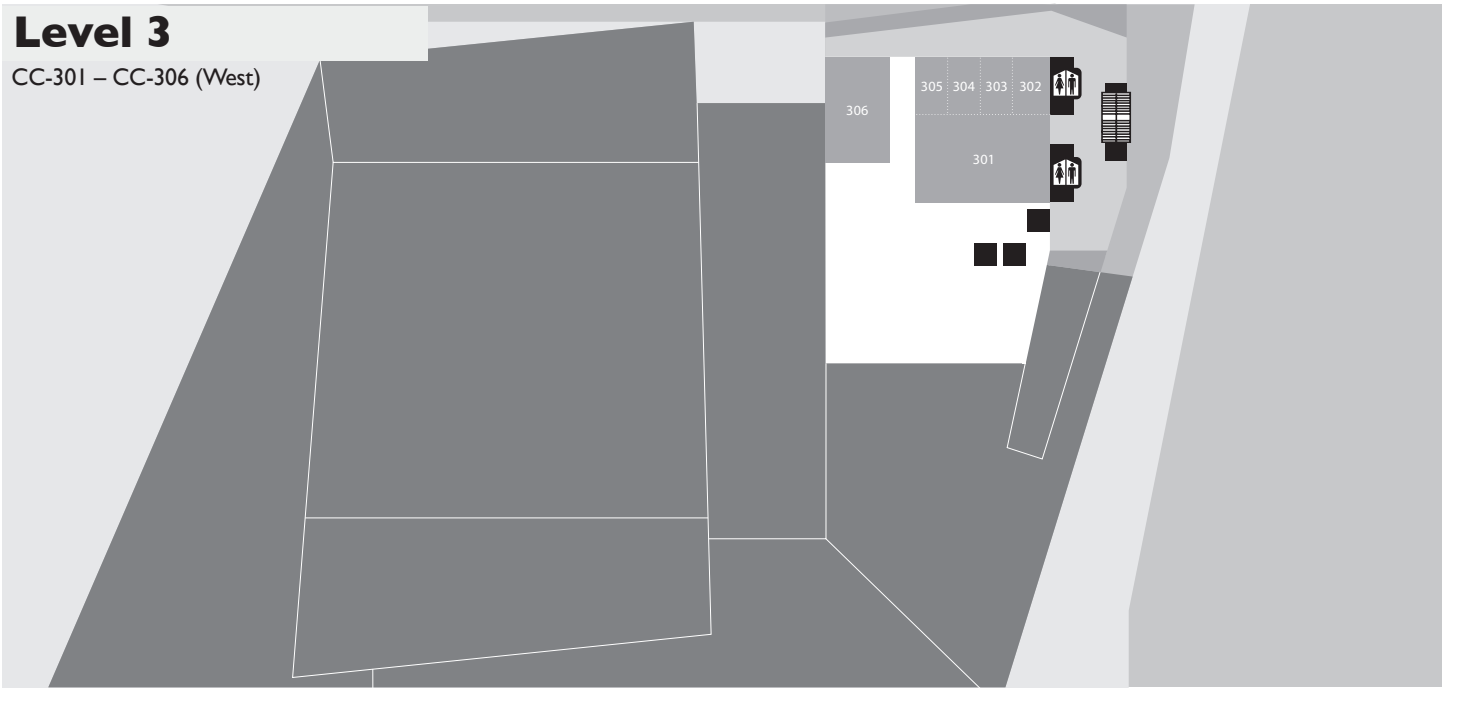
Level 2

CC-201 – CC-224 (West)



Level 3

CC-301 – CC-306 (West)



{ Convention Center Floor Plans - East }

{ Key }

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- Escalator
- Elevators

Meeting Level

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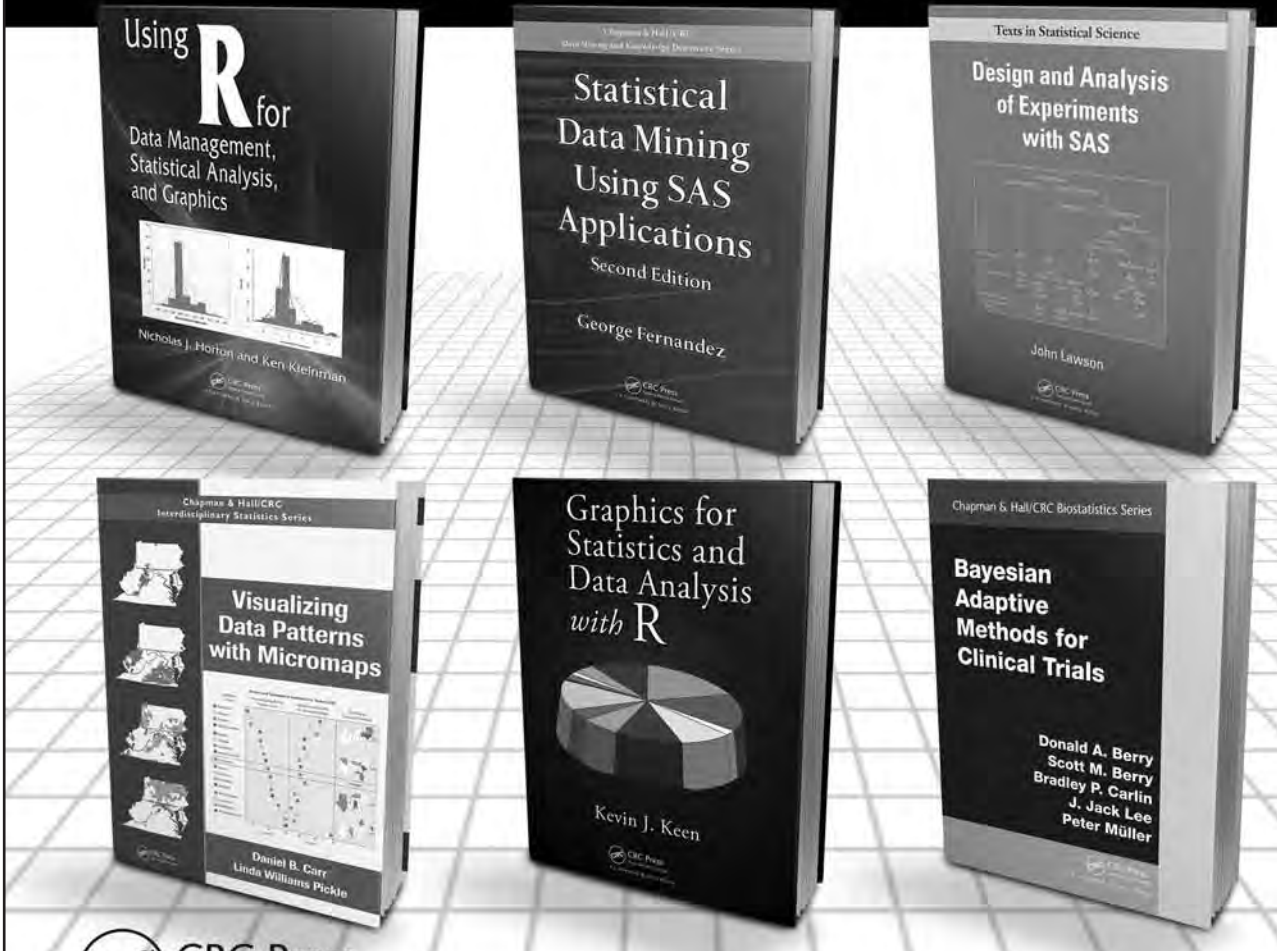

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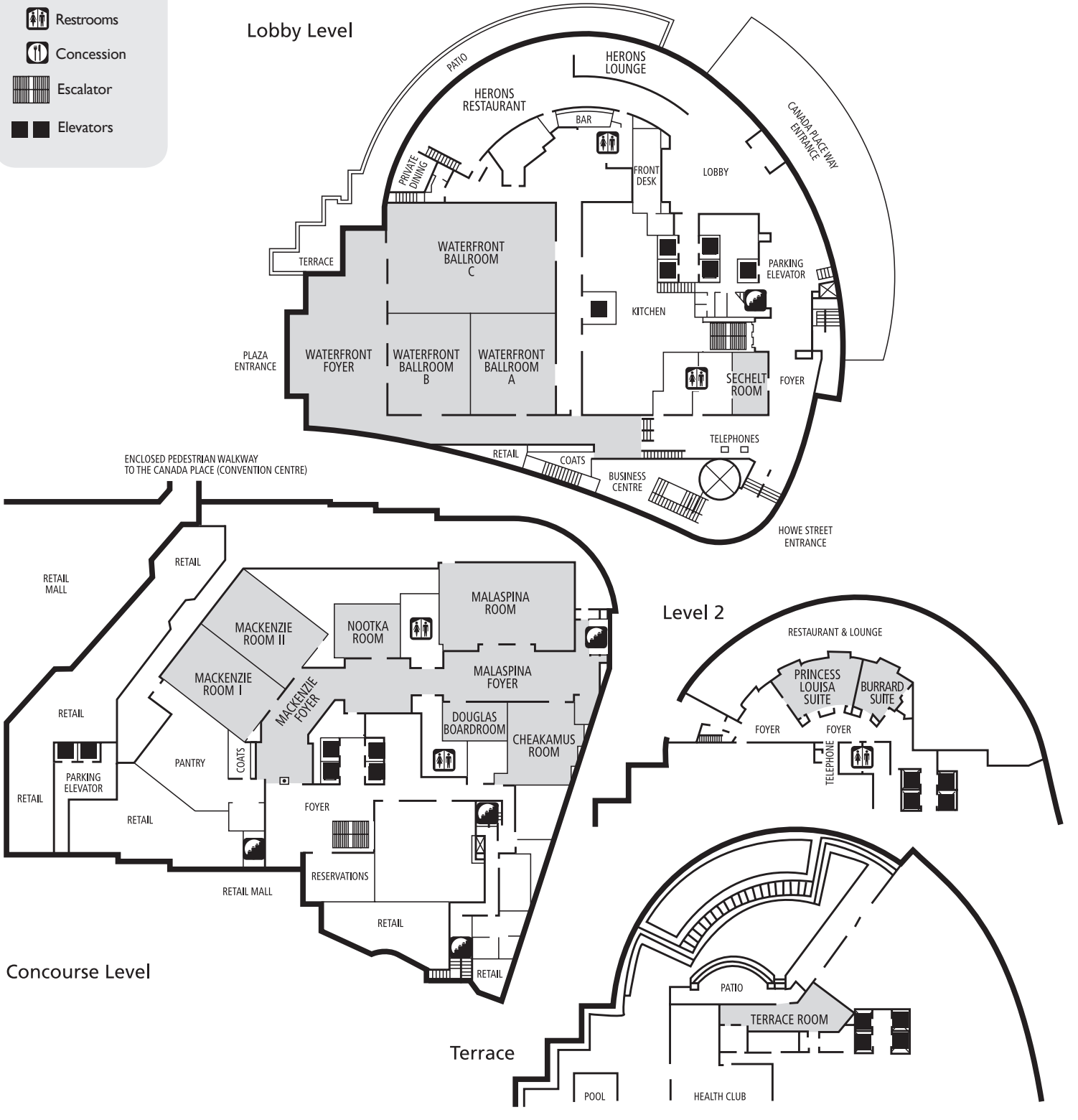

Emergency Telephone Messages

In case of emergency, messages may be left during registration hours by calling (778) 331-7636. These will be posted at the Cyber Center, located in the registration area.

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Hostelling International-Central	(604) 685-5335
Hostelling International-Downtown	(604) 684-4565
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Renaissance Hotel Harbourside	(604) 689-9211
Sutton Place Hotel	(604) 682-5511
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Westin Bayshore, Vancouver	(604) 682-3377

Assistance for Those with Disabilities

Please contact a staff member at the Special Assistance Desk in the registration area of the Vancouver Convention Centre if you have a disability that may impede your participation.

Child Care

Services may be organized through Just Like Mum! With trained and CPR/First Aid–certified child care providers, Just Like Mum! has served the metro Vancouver area for 17 years. For more information, call (604) 325-4225.

Policies

Electronic Devices

All cell phones, pagers, and other electronic devices should be turned off before attending any session or meeting.

Smoking

Smoking is not permitted at any JSM function, unless the event is held outside.

Photographs and Videotaping

Taking photographs or using video equipment during any JSM session or event is prohibited.

Recycling

Please use the paper, plastic, and aluminum trash containers located throughout the Vancouver Convention Centre. Also, participating in the towel and linen programs at area hotels makes a significant difference in the amount of energy and water used. You also can change the option from print to not print or use the paper recycling containers available at the Cyber Center. Finally, place the JSM badges and badge holders in one of the designated bins in the registration area when you are through with them.

JSM Proceedings

Eligibility guidelines and author instructions for JSM 2010 presenters are available at *www.amstat.org/meetings/jsm/2010/index.cfm?fuseaction=proceedings*. The submission site will open on August 23, 2010, and close on September 24, 2010.

JSM 2011

The 2011 Joint Statistical Meetings will be held in Miami Beach, Florida, from July 30 to August 4 at the Miami Beach Convention Center. Check out the details at Booth #407 in the exhibit hall.

Membership

Information about the ASA, ENAR, WNAR, IMS, SSC, ICSA, and IISA is available at the society booths in the registration area and exhibit hall. Each society provides a variety of publications and activities to anyone interested in applied and or theoretical statistics, and student membership is offered at substantially reduced rates.

Hours of Operation

Registration and ASA Membership/Special Assistance/Press Desk

CC-West Registration

JSM registration includes the Program Book; access to the exhibit hall; and admission to the Opening Mixer, Student Mixer (students only), and Informal Dance Party.

Saturday	7:30 a.m. – 6:00 p.m.
Sunday	7:30 a.m. – 8:30 p.m.
Monday	7:30 a.m. – 6:00 p.m.
Tuesday – Wednesday	7:30 a.m. – 4:30 p.m.
Thursday	7:30 a.m. – 10:30 a.m.

Speaker Management Room

CC-103-104 (West)

Speakers are required to check in 24 hours prior to their presentations to upload their materials to the speaker management system or confirm their materials were uploaded correctly. Session chairs also should check in to confirm all speakers have uploaded their materials.

Saturday	12:00 p.m. – 6:00 p.m.
Sunday	9:00 a.m. – 7:00 p.m.
Monday – Wednesday	7:00 a.m. – 6:00 p.m.
Thursday	7:00 a.m. – 10:30 a.m.

Career Placement Service

CC-Hall B

Saturday	9:00 a.m. – 5:00 p.m. (job posting and résumé submission only)
Sunday	1:00 p.m. – 6:00 p.m.
Monday – Tuesday	8:00 a.m. – 6:00 p.m.
Wednesday	8:00 a.m. – 2:30 p.m. (onsite registration closes at noon)

EXPO 2010

CC-Hall A

Visit publishers, software companies, and recruiters. See state-of-the-art products designed for the statistical community.

Sunday	1:00 p.m. – 6:00 p.m.
Monday – Tuesday	9:00 a.m. – 6:00 p.m.
Wednesday	9:00 a.m. – 2:00 p.m.

Cyber Center

CC-West Registration

There are 20 terminals with Internet access available for your emailing needs, as well as three printers. Also, the Vancouver Convention Centre is offering JSM attendees Wi-Fi throughout the building for $29.95 for three days or $34.95 for five days. There will be no internal message center this year, so make sure to take advantage of these Internet options.

Saturday	7:30 a.m. – 6:00 p.m.
Sunday	7:30 a.m. – 10:30 p.m.
Monday – Tuesday	7:00 a.m. – 10:00 p.m.
Wednesday	7:00 a.m. – 7:30 p.m.
Thursday	7:00 a.m. – 10:30 a.m.

ASA Marketplace

CC-West Registration

The ASA Marketplace is your store for the official JSM 2010 T-shirt and other JSM and ASA souvenirs.

Saturday	12:00 p.m. – 5:30 p.m.
Sunday – Tuesday	9:00 a.m. – 5:30 p.m.
Wednesday	9:00 a.m. – 5:00 p.m.
Thursday	7:30 a.m. – 10:00 a.m.

Vancouver Visitors Information Center

CC-West Registration

Operated by the Greater Vancouver Convention and Visitors Bureau, this center provides extensive information about and referrals for restaurants and sightseeing. Stop by to pick up current maps and travel information.

Sunday	9:00 a.m. – 5:00 p.m.
Monday – Wednesday	8:00 a.m. – 6:00 p.m.

Tour Information Desk

CC-West Registration

Didn't sign up for tours online? No worries. A representative from Venue West will be available to answer any questions you might have and to assist you with tour options while you're in Vancouver.

Saturday – Sunday	9:00 a.m. – 5:00 p.m.
Monday – Tuesday	9:00 a.m. – 2:00 p.m.

Introductory Overview Lectures

Sunday, August 1, 4:00 p.m. – 5:50 p.m.

CC-211 (West)

Session 45 – Multiple Testing Using Nonparametric and Semiparametric Models

Monday, August 2, 8:30 a.m. – 10:20 a.m.

CC-Ballroom C (West)

Session 99 – Future Directions in the Analysis of Genomic Data

Tuesday, August 3, 8:30 a.m. – 10:20 a.m.

CC-Ballroom C (West)

Session 269 – Statistical Methods for RNA-seq

Wednesday, August 4, 8:30 a.m. – 10:20 a.m.

CC-Ballroom C (West)

Session 439 – Past, Present, and Future of Statistical Network Analysis and Computer Vision

Late-Breaking Sessions

Sunday, August 1, 4:00 p.m. – 5:50 p.m.

CC-301 (West)

Session 46 – Late-Breaking Session I: Stop the Presses! A Magazine to Shout for Statistics! ASA/RSS Link Sends *Significance* Worldwide

Wednesday, August 4, 2:00 p.m. – 3:50 p.m.

CC-Ballroom C (West)

Session 550 – Late-Breaking Session II: Statistics Without Borders Post-Earthquake Efforts in Haiti

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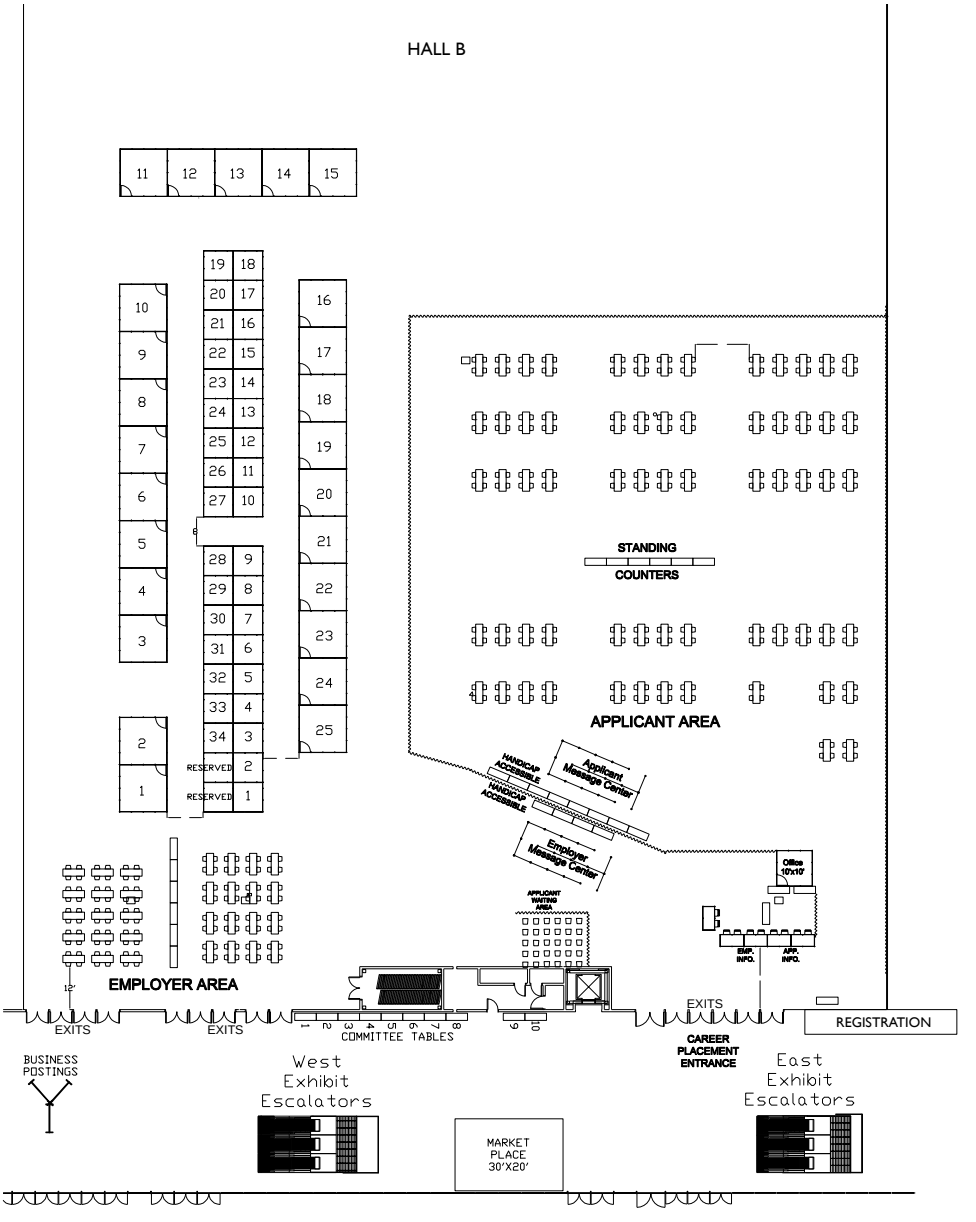

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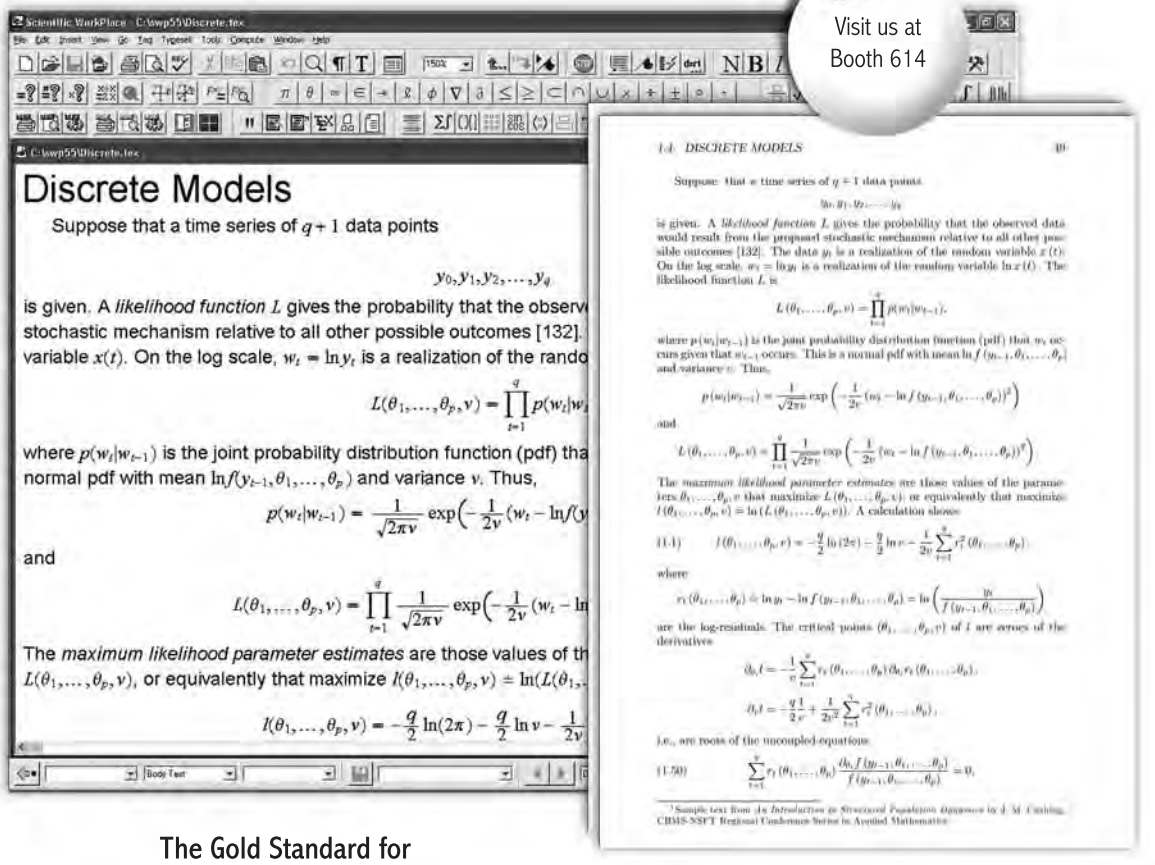

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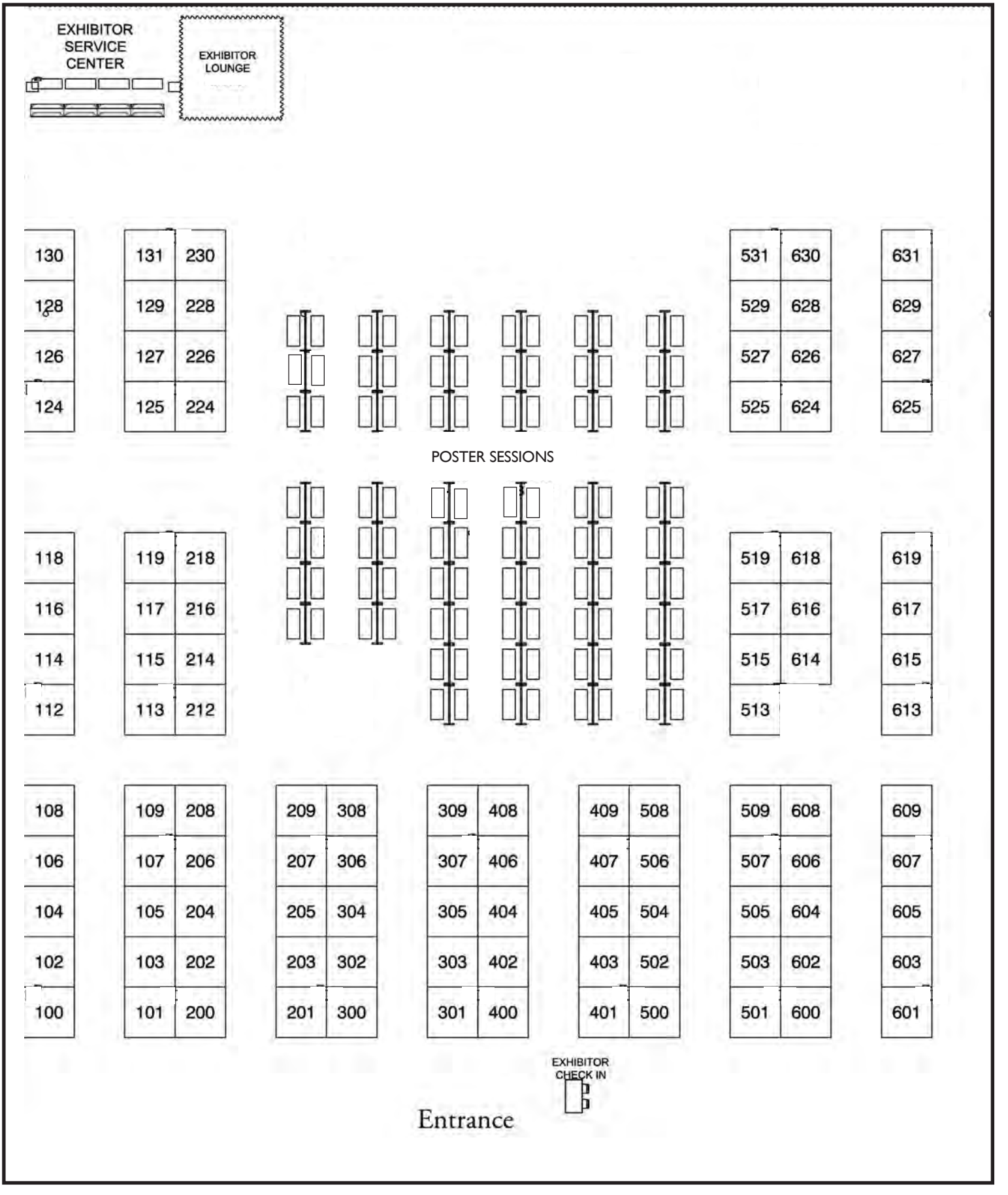
{ EXPO 2010 Floor Plan }



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307, 309	SAS
400	Institute of Mathematical Statistics
401, 403	American Statistical Association
402	Statistical Society of Canada

Booth	Exhibitor
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405	Publishers' Book Display
406	SIAM
407	JSM 2011 – Miami
408	Salford Systems
409, 508	SPSS, an IBM Company
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529, 531	Elsevier
601	W.H. Freeman & Company
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603	Texas A&M University
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607	USDA, National Agricultural Statistics Service
609	Centers for Disease Control and Prevention
613	Biostat, Inc.
614	MacKichan Software
615	Penn State World Campus
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617, 619	Brooks/Cole Cengage Learning
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Cologne, Germany
ADDPLAN's latest release, 5 MC, is the most comprehensive software for the design, simulation, and analysis of adaptive trials. The package incorporates multiple comparison procedures for multi-arm adaptive trials, including treatment selection designs, flexible combination of research phases, and patient enrichment designs. ADDPLAN 5 MC is fully validated and compliant with FDA regulations.

American Statistical Association (401, 403)
Alexandria, VA
The American Statistical Association, a scientific and educational society founded in Boston in 1839, is the second-oldest, continuously operating professional society in the United States. For 170 years, the ASA has provided its members and the public with up-to-date, useful information about statistics.

ASA-SIAM (404)
Alexandria, VA
The ASA-SIAM Series on Statistics and Applied Probability is published jointly by the ASA and Society for Industrial and Applied Mathematics. It provides reasonably priced, high-quality books on various topics in statistics and applied probability. Series titles are discounted 20%–30% during JSM, with free shipping for onsite orders.

Berkeley Electronic Press (bepress) (618)
Berkeley, CA
Founded by professors in 1999, Berkeley Electronic Press publishes peer-reviewed electronic journals and develops software for the next generation of scholarly publishing. The bepress journals collection, ResearchNow, redefines what scholarly journals can do today, with fast and high-quality peer review at sustainable prices.

Biostat, Inc. (613)
Englewood, NJ
Biostat distributes the world's best-selling software for meta-analysis and power-analysis (including cluster-randomized trials). Stop by Booth #613 for a free trial CD, free papers on meta-analysis, and information about our Wednesday morning workshops.

Brooks/Cole Cengage Learning (617, 619)
Belmont, CA
Cengage Learning delivers highly customized learning solutions for colleges, universities, professors, students, reference centers, government agencies, corporations, and professionals around the world. These solutions are delivered through specialized content, applications, and services that provide measurable results and foster academic excellence and professional development.

Bureau of Labor Statistics (616)
Washington, DC
The Bureau of Labor Statistics (BLS) is an independent federal statistical agency that collects, processes, analyzes, and disseminates essential statistical data. Stop by Booth #616 to experience new BLS product demos.

Cambridge University Press (513, 515)
New York, NY
Cambridge's publishing combines state-of-the-art content with the highest standards of scholarship, writing, and production. Visit us to browse and buy new titles, including the latest in the Cambridge Series in Statistical and Probabilistic Mathematics and the inaugural IMS monograph by Brad Efron, all available at a 20% discount.
www.cambridge.org/us

Capital One (206)
Richmond, VA
Capital One is a Fortune 500 company and one of the top ten U.S. banks. We nurture a work environment in which people with a variety of ideas and backgrounds come together, making Capital One a great company and place to work.

Centers for Disease Control and Prevention (609)
Atlanta, GA
The Centers for Disease Control and Prevention (CDC) is one of 11 agencies in the Department of Health and Human Services, which is the principal agency in the United States government for protecting the health and safety of all Americans and providing essential human services.

CRC Press-Taylor & Francis Group LLC (505, 507, 509, 604, 606, 608)
Boca Raton, FL
Chapman & Hall/CRC Press - Taylor & Francis Group is a premier statistics books and journals publisher. Our products include a range of books that cover many areas, from biostatistics to theory and methods. Visit the booth, peruse our books, and pick up free journals. Convention discounts will be offered.

CSIRO Mathematics, Informatics, and Statistics (228)
New South Wales, Australia
CSIRO is Australia's national science agency and one of the largest and most diverse research agencies in the world. With other employers of statisticians in Australia, we invite JSM delegates to see the great opportunities for statistics students, academics, and researchers Down Under.

Cytel Inc. (517, 519)
Cambridge, MA
Forty-seven of the top 50 biopharmaceutical firms use Cytel software to design, simulate, and analyze their clinical studies. At JSM 2010, see the latest versions of East, SiZ, and new Compass for dose-finding studies.

Data Numerica Institute (108)
Bellevue, WA
Datanumerica.com focuses on online statistical computing. It is a high-tech software company with business interests in software development, consultation, outsourcing, and web publication. Its Longit Informatics Center is a platform for correlated data analysis. Its StatGL is a statistical graphical library for developing online dynamic graphics and animation.

EDETEK Inc. (106)
Princeton, NJ
Edetek Inc. specializes in enterprise data management and business analytics. Leveraging our metadata-driven Panther Intelligence Platform and industry-specific modules, we provide end-to-end services in data validation, data warehousing, reporting, and in-depth analysis. Our clients span a broad range of industries, such as health care, financial services, and retail.

Elsevier (529, 531)
New York, NY
Elsevier delivers world-class content to statisticians and mathematicians, from journals and textbooks to online solutions. Come browse our new and bestselling books, cutting-edge journals, and online solutions in all areas of statistics. Conference discounts apply, and sample journals and textbook examination copies are available.

Hawkes Learning Systems (216)
Charleston, SC
Discover the advantages of interactive software created by a company that has been specializing in mathematics for more than 30 years. Hawkes Learning Systems promotes grade improvement and motivates students to succeed. Students learn more effectively through tutorials, unlimited practice, mastery-based homework, and error-specific feedback.

Institute of Mathematical Statistics (400)
Beachwood, OH
The Institute of Mathematical Statistics is an international professional and scholarly society devoted to the development, dissemination, and application of statistics and probability. The institute currently has about 4,500 members in all parts of the world.

Internal Revenue Service - Statistics of Income (605)
Washington, DC
The Statistics of Income (SOI) division produces data compiled from tax and information returns filed with the Internal Revenue Service. SOI data is about the financial composition of individuals, business taxpayers, tax-exempt organizations, and more. They are available through publications, electronic databases, *www.irs.gov/taxstats*, and SOI's Statistical Information Services (202) 874-0410.

JSM 2011 (407)
Miami, FL
Interested in miles of pristine beaches, exotic attractions, and myriad dining options? Visit the Miami Beach booth to plan your trip to JSM 2011, to take place July 30-August 4.

Kforce Clinical Research (107)
Tampa, FL
Kforce helps build scalable outsourcing solutions that enable organizations to quickly expand or contract operations, keeping pace with their pipeline's fluctuating demand. They achieve gains for customers through functional outsourcing, permanent placement, and contingent staffing in site and study management, monitoring, drug safety, and clinical data services.

MacKichan Software (614)
Poulsbo, WA
MacKichan Software-Scientific WorkPlace and Scientific Word make writing, sharing, and doing mathematics easier. The click of a button allows you to typeset your documents in LaTeX. The integrated computer algebra system lets you solve and plot equations; animate 2D and 3D plots; rotate, move, and fly through 3D plots; and more.

Medfocus LLC (100)
Chicago, IL
Since 1993, MedFocus has been one of the premier providers of clinical trial contract staff and outsourcing services to CROs and pharmaceutical, biotechnology, and medical device companies.

Minitab Inc. (500, 502)
State College, PA
Minitab 16 offers new functionality and features. The most prominent is the Assistant, a menu-based tool designed to guide users through their analyses and help them interpret their results with confidence. The interactive decision tree helps you choose the right tool and walks you through your analysis step-by-step.

National Center for Health Statistics (602)
Hyattsville, MD
The mission of the National Center for Health Statistics is to provide statistical information that will guide actions and policies to improve the health of the American people.

National Institutes of Health (626)
Bethesda, MD
The National Institutes of Health (NIH) is the primary federal agency for conducting and supporting medical research. NIH scientists investigate prevention, causes, treatments, and cures for diseases. Composed of 27 institutes and centers, the NIH provides leadership and financial support to researchers in every state.

National Security Agency (117)
Ft. Meade, MD
The National Security Agency is a federal government agency that provides foreign signals intelligence to decisionmakers and protects U.S. national security information systems.

NCHS Research Data Center (104)
Hyattsville, MD
The NCHS Research Data Center is in the unique position of being able to provide secure access to the full range of health and vital statistics information collected by the National Center for Health Statistics data systems, while continuing to protect the confidentiality of the respondents and records.

NCSS (201)
Kaysville, UT
NCSS produces statistical software for data analysis, graphics, and power analysis. This year, we are introducing a new version of PASS, our power analysis and sample size software.

Oxford University Press (218)
New York, NY
Oxford University Press is a leading publisher of books on statistics. See our latest titles, including Kendall's *New Perspectives in Stochastic Geometry*, O'Hagan's *The Oxford Handbook of Applied Bayesian Analysis*, Wilcox's *Basic Statistics*, and Rosenhouse's *Monty Hall Problem*. Receive a 20% discount on all orders placed at the show.

Pearson (504, 506)
Boston, MA
Pearson, the global leader in education and education technology, is committed to providing quality content, assessment tools, and educational services for millions of students and their instructors. Pearson continues to transform education and change the way students learn by offering innovative online resources and learning applications, including MyStatLab and StatCrunch.

Penn State World Campus (615)
University Park, PA
Penn State World Campus 100% online graduate certificate and master's of applied statistics. Programs are designed to provide training focused on developing data analysis skills and exploring core areas of applied statistics (DOE, ANOVA, Analysis of Discrete Data, MANOVA) without going too deeply into the mathematical statistics foundations. *http://worldcampus.psu.edu*

Publishers' Book Display (405)
Alexandria, VA
Visit the Publishers' Book Display booth to review books and literature from publishers unable to attend JSM 2010. Order forms for discounted books will be available.

REvolution Computing (527)
Palo Alto, CA
Revolution Analytics (*www.revolutionanalytics.com*) is the leading commercial provider of software and support for the popular open source R statistics language. Its Revolution R products help make predictive analytics accessible to every type of user and budget.

RTI International (501, 600)
Research Triangle Park, NC
Dedicated to improving the human condition, RTI International (*www.rti.org*) provides research and technical expertise to governments and businesses around the world. We work in health and pharmaceuticals, education and training, surveys and statistics, advanced technology, international development, economic and social policy, energy and the environment, and laboratory and chemistry services.

SAGE (113)
Thousand Oaks, CA
SAGE—an independent international publisher in the social sciences, technology, and medicine—provides journals, books, and electronic media of the highest caliber. Researchers, students, and professionals have relied on our innovative resources for more than 45 years.

Salford Systems (408)
San Diego, CA
Salford Systems is an award-winning data mining software development and consulting company with a proven record of technical and practical excellence. Salford Systems' software products—including CART, MARS, TreeNet, and RandomForests—are installed at more than 3,500 sites worldwide.

SAS (307, 309)
Cary, NC
SAS is the leader in business intelligence and analytical software and services. The SAS Global Academic Program works with professors, students, and researchers to support industry partnerships with academia; deliver technology and resources for teaching and learning; and educate students about business intelligence, analytics, and data mining for business advantage. Learn more: *www.sas.com/academic*.

SAS Institute Inc., JMP Division (300, 302)
Cary, NC
JMP is the SAS software designed for dynamic data visualization on the desktop. Interactive, comprehensive, and highly visual, JMP enables you to interact with your data to explore relationships, see hidden trends, dig into areas that interest you, and move in new directions that you hadn't yet considered.

SAS Institute/R&D (301, 303, 305)
Cary, NC
SAS will exhibit its analytical software for statistics, data mining, econometrics, and statistical quality control. Please visit the SAS booth to learn more about the recently released SAS 9.22 products, including SAS/STAT and SAS/ETS, and meet some of the SAS R&D statisticians.

SAS Publishing (304, 306, 308)
Cary, NC
Visit us to learn more about SAS Press, expert advice from SAS authors worldwide; SAS Documentation, excellent resources to build your skills; connecting with SAS Publishing through social media; and saving 20% on orders placed by August 27. We are happy to answer your questions. Enjoy the conference!

SIAM (406)
Philadelphia, PA
SIAM publishes a variety of books that will be of interest to JSM attendees, including the ASA-SIAM series. Enjoy 20%–30% discounts and free shipping for onsite orders during JSM. Stop by the booth to enter the competition for this year's giveaway.

Smith Hanley (208)
Lake Mary, FL
Smith Hanley supports the pharmaceutical and biotech industry by providing experienced personnel for contract and permanent staffing, onsite teams, outsourcing solutions, global sourcing, and deliverables-based projects. We specialize in CRAs, SAS programmers, statisticians, DBAs, clinical data managers, project managers, study managers, safety/regulatory associates, and outcomes.

Springer (125, 127, 224, 226)
New York, NY
Visit the Springer booths and get further acquainted with an abundant selection of top-notch titles by award-winning authors. Springer's statistics publishing program is world-renowned and has produced many bestselling textbooks, monographs, reference works, and journals. Stop by and see for yourself!

SPSS, an IBM Company (409, 508)
Chicago, IL
SPSS, an IBM Company, is a leading global provider of predictive analytics software and solutions. Commercial, government, and academic customers worldwide rely on SPSS technology as a competitive advantage in attracting, retaining, and growing customers, while reducing fraud and mitigating risk. SPSS was acquired by IBM in October of 2009. *www.spss.com*

StataCorp LP (200, 202, 204)
College Station, TX
Stata statistical software is a general purpose system intended for use by medical researchers, biostatisticians, epidemiologists, psychologists, economists, sociologists, political scientists, geographers, social scientists, and other research professionals. It is available for Windows, Mac, and Unix computers and provides full data management, graphics, statistical, and matrix language capabilities.

Stat-Ease, Inc. (109)
Minneapolis, MN
Stat-Ease, Inc. produces two easy-to-use Windows programs for design of experiments (DOE), including Design-Ease software for finding breakthrough factors and Design-Expert software for optimization (now V8). The company also offers computer-intensive DOE workshops, including Experiment Design Made Easy, Response Surface Methods for Process Optimization, and Mixture Design for Optimal Formulations.

Statistical Society of Canada (402)
Ottawa, ON
The Statistical Society of Canada encourages the development and use of statistics and probability in Canada. It has four sections: Biostatistics, Business and Industrial Statistics, Probability, and Survey. The SSC also offers two levels of accreditation: the Professional Statistician (PStat) and the Associate Statistician (AStat).

statistics.com (503)
Arlington, VA
Statistics.com offers 80+ online courses in statistics, from introductory to advanced. Courses last 3–4 weeks and require approximately 15 hours per week. Faculty members are leading authors and experts. No set hours when you must be online; daily interaction with instructors and fellow students.

STATPOINT Technologies, Inc. (101)
Warrenton, VA
StatPoint Technologies, Inc. develops the respected STATGRAPHICS line of quality improvement software for quality initiatives, Six Sigma, web analytics, and beyond. STATGRAPHICS Centurion XVI.I is the latest version. Since 1982, prominent companies, government agencies, and distinguished educational institutions worldwide have depended on STATGRAPHICS to guide actionable decisions and drive efficiencies.

StatSoft, Inc. (212, 214)
Tulsa, OK
StatSoft, Inc., founded in 1984, is one of the largest producers of enterprise and desktop software for data analysis, data mining, quality control/Six Sigma, and web-based analytics. Its products are used worldwide at most major universities, corporations, and government agencies and are supported with training and consulting services in 24 countries on all continents.

SYSTAT Software, Inc. (105)
Chicago, IL
Systat Software is the developer of the SYSTAT statistics and graphics package. SYSTAT 13 is a cutting-edge tool for scientific and social research. It's recently added methods such as ARCH and GARCH, Best Subsets Regression, and Confirmatory Factor Analysis to its broad portfolio of procedures. Visit *www.systat.com*.

Tech Observer (102)
Hackensack, NJ
Tech Observer is a global clinical research organization and clinical staffing company. Our company is set up to provide virtually any and all level(s) of support and assistance you may require in statistical/SAS analysis and clinical data management.

Tessella (230)
Abington, UK
Tessella and Berry Consultants have more than 10 years of experience across a wide range of indications and trial phases helping pharmaceutical and biotech organizations maximize the impact of their clinical trials on their drug development process.

Texas A&M University (603)
College Station, TX
The department of statistics at Texas A&M University offers online master's of science in statistics degrees and certificates with the emphasis in biostatistics, data mining, or applied statistics. An integrated extension of our renowned on-campus program, distance students receive the same instruction, course materials, and exams—with added flexibility.

TIBCO Spotfire (103)
Somerville, MA
TIBCO Spotfire Analytics provides an incredibly fast and flexible environment for analyzing critical data. With powerful in-memory analysis, predictive modeling, and a highly visual and intuitive interface, Spotfire gives business and technical professionals the ability to rapidly explore their data.

U.S. Census Bureau (119)
Washington, DC
The U.S. Census Bureau's collections include socioeconomic information—2010 Census and American Community Survey—topics such as population, housing, and income; and business and industry statistics. To identify changes or track trends at the local, state, or national levels or to see what's new, please visit booth 119 during this event.
www.census.gov

USDA, National Agricultural Statistics Service (607)
Washington, DC
USDA, National Agricultural Statistics Service (NASS) disseminates data on every facet of U.S. agriculture. The agency conducts surveys and issues 500 reports annually. NASS conducts the Census of Agriculture every five years, providing the only source of agricultural data for every county in the nation.

W.H. Freeman & Company (601)
New York, NY
W.H. Freeman & Co. publishes high-quality textbooks and media. Visit Booth #601 to learn about our popular titles for introductory statistics, business statistics, mathematical statistics, statistics for the life sciences, and others. We will be providing demonstrations of our popular homework site, StatsPortal (*www.yourstatsportal.com*), and new lecture video series, StatClips.

Wiley-Blackwell (203, 205, 207, 209)
Hoboken, NJ
Wiley-Blackwell is the international scientific, technical, medical, and scholarly publishing business of John Wiley & Sons, with strengths in every major academic and professional field and partnerships with many of the world's leading societies. For more information, please visit *www.wileyblackwell.com*.

{ Continuing Education at a Glance }

TIME	COURSE	INSTRUCTOR (S)	COURSE TITLE
Saturday, July 31			
8:30 a.m.–5:00 p.m.	CE_01C	Miguel Hernan/James Robins	Causal Inference
8:30 a.m.–5:00 p.m.	CE_02C	John Cornell/Greg Piepel	Methods for Designing and Analyzing Mixture Experiments
8:30 a.m.–5:00 p.m.	CE_03C	Jim Albert/Maria Rizzo	Monte Carlo and Bayesian Computation with R
8:30 a.m.–5:00 p.m.	CE_04C	William B. Smith/Dallas Johnson	Some Multivariate Statistical Methods
8:30 a.m.–5:00 p.m.	CE_05C	R. Todd Ogden	Wavelets in the Real World
Sunday, August 1			
8:30 a.m.–5:00 p.m.	CE_01C	Miguel Hernan/James Robins	Causal Inference
8:00 a.m.–noon	CE_06C	Fang Chen	Practical Bayesian Computation
8:30 a.m.–5:00 p.m.	CE_07C	F. Michael Speed/Tom Bohannon/J. Michael Hardin	Applied Data Mining
8:30 a.m.–5:00 p.m.	CE_08C	Devan Mehrotra/Alex Dmitrienko/Keaven Anderson	Analysis of Clinical Trials: Theory and Applications
8:30 a.m.–5:00 p.m.	CE_09C	Frank Harrell Jr.	Regression Modeling Strategies
1:00 p.m.–5:00 p.m.	CE_10C	Alan Gelfand/James Clark	Bayesian Ecology: Hierarchical Modeling for Ecological Processes
Monday, August 2			
8:00 a.m.–noon	CE_11C	Tom O'Gorman	Adaptive Analysis of Data: Tests of Significance and Confidence Intervals
8:30 a.m.–5:00 p.m.	CE_12C	Rafe Donahue	Fundamental Statistics Concepts in Presenting Data: Principles for Constructing Better Graphics
8:30 a.m.–5:00 p.m.	CE_13C	Robert Muenchen/Ralph O'Brien	An Introduction to R for SAS, SPSS, and Stata Users
8:30 a.m.–5:00 p.m.	CE_14C	Alan Agresti/Bhramar Mukherjee	Analysis of Ordinal Categorical Data
8:30 a.m.–5:00 p.m.	CE_15C	Roderick Little/Trivellore Raghunathan	Bayesian Inference for Surveys
1:00 p.m.–5:00 p.m.	CE_16C	Ingram Olkin	Meta-Analysis: Statistical Issues for Combining the Results of Multiple Studies
Tuesday, August 3			
8:00 a.m.–noon	CE_17C	Dale Zimmerman	Analysis of Longitudinal Data Using Antedependence Models
8:30 a.m.–5:00 p.m.	CE_18C	Dimitris Rizopoulos/Geert Verbeke/ Geert Molenberghs	Joint Modeling Approaches in Longitudinal Studies Using Random Effects
8:30 a.m.–5:00 p.m.	CE_19C	Donald Berry/Bradley Carlin/J. Jack Lee/Scott Berry	Bayesian Adaptive Methods for Clinical Trials
8:30 a.m.–5:00 p.m.	CE_20C	F. Jay Breidt/Jean Opsomer	Modeling and Data Analysis for Complex Surveys
8:30 a.m.–5:00 p.m.	CE_21C	Jennifer Clarke/Adrian Dobra	Statistical Methods for Genomewide Association Studies
1:00 p.m.–5:00 p.m.	CE_22C	Mani Lakshminarayanan/Madhuja Mallick	Design and Analysis of Count and Zero-Inflated Data
Wednesday, August 4			
8:00 a.m.–9:45 a.m.	CE_23T	Michael Borenstein/Hannah Rothstein	Meta-Analysis: Concepts and Applications
8:00 a.m.–9:45 a.m.	CE_24T	Yannis Jemiai/Nitin R. Patel	Cytel: Introducing Compass: Software for the Design of Adaptive Dose-Finding Trials
8:00 a.m.–9:45 a.m.	CE_25T	Yiu-Fai Yung	Introduction to Structural Equation Modeling Using the CALIS Procedure in SAS/STAT Software
8:00 a.m.–9:45 a.m.	CE_26T	Mikhail Golovnya	Introduction to CART: Data Mining with Decision Trees
10:00 a.m.–11:45 a.m.	CE_27T	Michael Borenstein/Hannah Rothstein	Power Analysis: A Simple and Effective Approach
10:00 a.m.–11:45 a.m.	CE_28T	Jeffrey Pitblado	Survey Data Analysis with Stata
10:00 a.m.–11:45 a.m.	CE_29T	Mahesh Joshi	Modeling Loss Distributions Using SAS/ETS Software
10:00 a.m.–11:45 a.m.	CE_30T	Mikhail Golovnya	Introduction to MARS: Predictive Modeling with Nonlinear Automated Regression Tools
1:00 p.m.–2:45 p.m.	CE_31T	Cyrus Mehta	Sample Size Re-estimation in Phase 3 Time-to-Event Clinical Trials with EastAdapt Software
1:00 p.m.–2:45 p.m.	CE_32T	Robert G. Gutierrez	Multilevel and Mixed Models in Stata
1:00 p.m.–2:45 p.m.	CE_33T	Rick Wicklin	An Introduction to SAS IML Studio for SAS/STAT Users
1:00 p.m.–2:45 p.m.	CE_34T	Mikhail Golovnya	Advances in Data Mining: Jerome Friedman's TreeNet/MART and Leo Breiman's Random Forests
3:00 p.m.–4:45 p.m.	CE_35T	Edward Chao	Statistical, Sensitivity, and Graphical Methods for Correlated Data Analysis

SUNDAY, AUGUST 1

{ Key }

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Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

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MONDAY, AUGUST 2

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

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ENVR	138 CC-119 (West) / 118 CC-111/112 (West) / 102 CC-109 (West)	183 CC-119 (West) / 161 CC-121 (West)	250 CC-17 (East) / 249 CC-16 (East)	
EPI	139 CC-208 (West) / 100 CC-211 (West)	189 CC-Exhibit Hall A (West) / 184 CC-206 (West)	257 CC-Exhibit Hall A (West) / 254 CC-111/112 (West) / 253 CC-116 (West) / 252 CC-117 (West) / 251 CC-119 (West)	
GOVT		190 CC-Exhibit Hall A (West) / 166 CC-207 (West) / 164 CC-213 (West) / 153 CC-301 (West)	243 CC-222 (West) / 234 CC-224 (West) / 233 CC-221 (West)	
HPSS		156 CC-212 (West)	259 CC-Exhibit Hall A (West) / 230 CC-213 (West) / 216 CC-211 (West)	
ICSA	99 CC-Ballroom C (West)	178 CC-9 (East)	218 CC-201 (West)	260 CC-Ballroom AB (West)

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
IISA	99 CC-Ballroom C (West)	144 CC-13 (East)		260 CC-Ballroom AB (West)
IMS	120 CC-110 (West) / 134 CC-117 (West) / 133 CC-116 (West) / 99 CC-Ballroom C (West)	189 CC-Exhibit Hall A (West) / 177 CC-14 (East) / 176 CC-15 (East) / 146 CC-109 (West)	213 CC-Ballroom C (West)	260 CC-Ballroom AB (West)
JASA		152 CC-Ballroom C (West)		
MEM		149 CC-211 (West)		
MKTG	137 CC-302/303 (West) / 105 CC-301 (West)			
NPAR	123 CC-122 (West) / 122 CC-121 (West)	189 CC-Exhibit Hall A (West) / 188 CC-116 (West) / 180 CC-114/115 (West)	232 CC-10 (East) / 231 CC-13 (East) / 245 CC-15 (East) / 244 CC-14 (East) / 210 CC-18 (East)	
Q&P		165 CC-18 (East) / 181 CC-17 (East)		
RISK	110 CC-118 (West)			
SBSS	121 CC-114/115 (West)	189 CC-Exhibit Hall A (West) / 163 CC-120 (West) / 179 CC-122 (West) / 147 CC-111/112 (West)	242 CC-9 (East) / 222 CC-114/115 (West)	
SDM	112 CC-16 (East)	189 CC-Exhibit Hall A (West) / 182 CC-16 (East) / 145 CC-110 (West)	248 CC-202 (West)	
SIS		195 CC-Exhibit Hall A (West)		
SOC	109 CC-306 (West)	193 CC-Exhibit Hall A (West) / 162 CC-214 (West) / 169 CC-224 (West)		
SPES	103 CC-17 (East)	189 CC-Exhibit Hall A (West)		
SRMS	143 CC-220 (West) / 142 CC-223 (West) / 141 CC-224 (West) / 140 CC-222 (West) / 116 CC-218/219 (West)	189 CC-Exhibit Hall A (West) / 191 CC-Exhibit Hall A (West) / 186 CC-223 (West) / 185 CC-210 (West) / 159 CC-222 (West) / 158 CC-210 (West) / 151 CC-223 (West)	255 CC-109 (West) / 229 CC-214 (West) / 228 CC-215 (West)	
SRNT			219 CC-205 (West)	
SSC	99 CC-Ballroom C (West) / 101 CC-18 (East)	194 CC-Exhibit Hall A (West)		260 CC-Ballroom AB (West)
TSHS		154 CC-118 (West)	258 CC-Exhibit Hall A (West)	
WNAR	99 CC-Ballroom C (West) / 108 CC-210 (West)	189 CC-Exhibit Hall A (West)	212 CC-207 (West)	260 CC-Ballroom AB (West)

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

TUESDAY, AUGUST 3

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.	8:00 p.m.
ASA	270 CC-306 (West) / 269 CC-Ballroom C (West)			429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)
B&E	300 CC-208 (West) / 299 CC-212 (West) / 298 CC-213 (West)	346 CC-214 (West) / 334 CC-216 (West)	423 CC-Exhibit Hall A (West) / 411 CC-203 (West) / 410 CC-201 (West) / 385 CC-202 (West)		
BIOM	269 CC-Ballroom C (West) / 297 CC-204 (West) / 296 CC-205 (West) / 295 CC-217 (West) / 286 CC-209 (West) / 285 CC-218/219 (West) / 284 CC-210 (West)	360 CC-Exhibit Hall A (West) / 343 CC-205 (West) / 342 CC-208 (West) / 316 CC-222 (West)	403 CC-116 (West) / 407 CC-221 (West) / 406 CC-302/303 (West) / 405 CC-117 (West) / 392 CC-207 (West)		
BIOP	289 CC-215 (West) / 283 CC-207 (West) / 273 CC-301 (West)	332 CC-209 (West) / 345 CC-206 (West) / 344 CC-207 (West) / 330 CC-122 (West) / 329 CC-302/303 (West) / 328 CC-215 (West)	409 CC-209 (West) / 395 CC-205 (West) / 408 CC-222 (West) / 394 CC-220 (West) / 393 CC-217 (West) / 391 CC-218/219 (West)		
CAS		322 CC-111/112 (West)			
CNSL			425 CC-Exhibit Hall A (West) / 399 CC-206 (West)		
COC		318 CC-109 (West)			
COMP	309 CC-220 (West) / 308 CC-221 (West)	354 CC-114/115 (West) / 353 CC-120 (West)	400 CC-111/112 (West) / 384 CC-114/115 (West)		
DEF	311 CC-216 (West)	326 CC-118 (West)	417 CC-119 (West)		
DEM				429 CC-Ballroom AB (West)	
EDUC	310 CC-222 (West) / 280 CC-224 (West)	355 CC-203 (West) / 340 CC-224 (West)	398 CC-122 (West)		
ENAR	270 CC-306 (West) / 269 CC-Ballroom C (West) / 282 CC-214 (West) / 271 CC-114/115 (West)	337 CC-217 (West) / 336 CC-223 (West)	381 CC-208 (West)	429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)
ENVR	290 CC-13 (East)	335 CC-18 (East) / 319 CC-13 (East)	428 CC-Exhibit Hall A (West)		
EPI	312 CC-206 (West)		418 CC-204 (West) / 383 CC-215 (West)		
GM	274 CC-201 (West)		379 CC-109 (West)		
GOVT	304 CC-116 (West) / 279 CC-118 (West)		414 CC-210 (West)		
GRPH	277 CC-223 (West)				

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.	8:00 p.m.
HPSS	293 CC-122 (West) / 292 CC-111/112 (West)	351 CC-221 (West) / 350 CC-213 (West)	402 CC-214 (West)		
ICSA	270 CC-306 (West) / 269 CC-Ballroom C (West)	348 CC-14 (East)	426 CC-Exhibit Hall A (West)	429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)
IISA	270 CC-306 (West) / 269 CC-Ballroom C (West)		378 CC-18 (East)	429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)
IMS	301 CC-202 (West) / 270 CC-306 (West) / 269 CC-Ballroom C (West) / 275 CC-18 (East)	347 CC-15 (East) / 320 CC-110 (West)	427 CC-Exhibit Hall A (West) / 401 CC-9 (East) / 412 CC-16 (East)	429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)
MEM			387 CC-13 (East)		
NPAR	306 CC-16 (East) / 305 CC-17 (East) / 272 CC-211 (West)	339 CC-16 (East) / 338 CC-17 (East)	424 CC-Exhibit Hall A (West) / 416 CC-15 (East) / 415 CC-14 (East)		
Q&P			380 CC-120 (West) / 388 CC-118 (West)		
SAMSI		317 CC-201 (West)			
SBSS	291 CC-10 (East) / 303 CC-15 (East) / 302 CC-9 (East)	349 CC-9 (East) / 327 CC-10 (East)	390 CC-10 (East)		
SDM	281 CC-302/303 (West)	357 CC-116 (West) / 356 CC-117 (West)	382 CC-110 (West)		
SIS		325 CC-301 (West)			
SOC	288 CC-119 (West) / 287 CC-121 (West)	331 CC-210 (West)	421 CC-213 (West) / 389 CC-306 (West)		
SPES	307 CC-203 (West)	352 CC-202 (West)			
SRMS	314 CC-110 (West) / 313 CC-117 (West) / 278 CC-109 (West)	359 CC-220 (West) / 358 CC-212 (West) / 333 CC-218/219 (West) / 321 CC-211 (West)	420 CC-212 (West) / 419 CC-216 (West) / 397 CC-211 (West) / 396 CC-301 (West)		
SSC	294 CC-14 (East) / 270 CC-306 (West) / 269 CC-Ballroom C (West) / 276 CC-120 (West)		422 CC-17 (East)	429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)
TECH			380 CC-120 (West)		
WNAR	270 CC-306 (West) / 269 CC-Ballroom C (West)	362 CC-Exhibit Hall A (West) / 323 CC-204 (West)		429 CC-Ballroom AB (West)	430 CC-Ballroom AB (West)

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

WEDNESDAY, AUGUST 4

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
ASA	439 CC-Ballroom C (West)		550 CC-Ballroom C (West)	596 CC-Ballroom AB (West)
B&E	464 CC-214 (West)	517 CC-221 (West) / 516 CC-216 (West) / 495 CC-222 (West)	579 CC-16 (East)	
BIOM	467 CC-206 (West) / 466 CC-205 (West) / 452 CC-217 (West) / 451 CC-302/303 (West) / 465 CC-306 (West)	512 CC-121 (West) / 502 CC-205 (West)	582 CC-210 (West) / 581 CC-209 (West) / 564 CC-208 (West) / 562 CC-215 (West)	
BIOP	469 CC-216 (West) / 468 CC-221 (West) / 454 CC-222 (West) / 444 CC-220 (West)	504 CC-217 (West) / 515 CC-122 (West) / 514 CC-202 (West) / 513 CC-203 (West) / 503 CC-220 (West) / 501 CC-218/219 (West) / 498 CC-214 (West)	584 CC-120 (West) / 569 CC-220 (West) / 566 CC-213 (West) / 583 CC-117 (West) / 565 CC-221 (West)	
CLJS		488 CC-302/303 (West)		
CNSL	445 CC-212 (West)			
COMP	457 CC-18 (East)	523 CC-111/112 (West) / 491 CC-110 (West)		
DEF		494 CC-212 (West)		
EDUC	478 CC-17 (East) / 477 CC-16 (East) / 449 CC-224 (West)	506 CC-120 (West)	575 CC-13 (East)	
ENAR	458 CC-223 (West) / 439 CC-Ballroom C (West)	518 CC-213 (West) / 489 CC-209 (West) / 487 CC-206 (West)	550 CC-Ballroom C (West) / 554 CC-306 (West)	596 CC-Ballroom AB (West)
ENVR	456 CC-111/112 (West)	526 CC-17 (East) / 525 CC-16 (East) / 486 CC-118 (West)	591 CC-216 (West) / 572 CC-214 (West)	
EPI	481 CC-203 (West) / 480 CC-202 (West) / 455 CC-204 (West)	530 CC-204 (West)	595 CC-116 (West) / 592 CC-119 (West) / 571 CC-217 (West) / 559 CC-211 (West)	
GM	440 CC-109 (West)		580 CC-17 (East) / 555 CC-212 (West)	
GOVT	472 CC-208 (West) / 471 CC-213 (West)	492 CC-301 (West)	563 CC-121 (West)	
GRPH	446 CC-13 (East)		574 CC-14 (East)	
HPSS	473 CC-210 (West) / 442 CC-211 (West)	508 CC-210 (West)	587 CC-110 (West)	
ICSA	439 CC-Ballroom C (West)	493 CC-306 (West)	550 CC-Ballroom C (West)	596 CC-Ballroom AB (West)
IISA	439 CC-Ballroom C (West)		550 CC-Ballroom C (West)	596 CC-Ballroom AB (West)
IMS	460 CC-117 (West) / 459 CC-119 (West) / 439 CC-Ballroom C (West)	519 CC-116 (West) / 490 CC-Ballroom C (West)	585 CC-203 (West) / 550 CC-Ballroom C (West) / 560 CC-201 (West) / 558 CC-202 (West)	596 CC-Ballroom AB (West)
*JASA*APP			557 CC-301 (West)	

Sponsor	8:30 a.m.	10:30 a.m.	2:00 p.m.	4:00 p.m.
MEM	448 CC-218/219 (West)			
MKTG		485 CC-201 (West)	590 CC-18 (East)	
NOETHER		496 CC-109 (West)		
NPAR	462 CC-116 (West) / 463 CC-114/115 (West)	509 CC-10 (East) / 499 CC-9 (East)	578 CC-207 (West) / 577 CC-222 (West) / 553 CC-223 (West)	
Q&P	475 CC-15 (East) / 450 CC-118 (West)			
RISK	476 CC-122 (West)		588 CC-15 (East)	
SBSS	461 CC-120 (West) / 470 CC-121 (West)	521 CC-15 (East) / 520 CC-14 (East) / 497 CC-13 (East)	586 CC-204 (West) / 552 CC-111/112 (West)	
SDM	479 CC-14 (East)	531 CC-Exhibit Hall A (West) / 524 CC-117 (West) / 505 CC-114/115 (West)	589 CC-9 (East) / 573 CC-10 (East)	
SIS	482 CC-110 (West)			
SOC	453 CC-207 (West)	529 CC-215 (West) / 511 CC-224 (West)	556 CC-122 (West)	
SPES	474 CC-9 (East) / 443 CC-10 (East)	522 CC-207 (West)		
SRMS	484 CC-209 (West) / 483 CC-215 (West) / 447 CC-301 (West)	527 CC-211 (West)	594 CC-114/115 (West) / 593 CC-218/219 (West) / 570 CC-109 (West) / 568 CC-206 (West) / 567 CC-205 (West) / 551 CC-224 (West)	
SSC	439 CC-Ballroom C (West)	507 CC-18 (East)	576 CC-302/303 (West) / 550 CC-Ballroom C (West)	596 CC-Ballroom AB (West)
TSHS		528 CC-119 (West)		
WNAR	439 CC-Ballroom C (West) / 441 CC-201 (West)		550 CC-Ballroom C (West)	596 CC-Ballroom AB (West)

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

THURSDAY, AUGUST 5

{ Key }

15
Session Number

CC
Vancouver Convention Centre

104 (East/West)
Room Number

Sponsor	8:30 a.m.	10:30 a.m.
B&E	628 CC-111 (West) / 604 CC-110 (West)	672 CC-117 (West) / 666 CC-118 (West)
BIOM	624 CC-113 (West) / 623 CC-208 (West) / 622 CC-114 (West) / 609 CC-119 (West) / 606 CC-215 (West)	664 CC-115 (West) / 668 CC-105/106 (West) / 667 CC-107/108 (West) / 653 CC-116 (West) / 646 CC-208 (West)
BIOP	620 CC-212 (West) / 627 CC-107/108 (West) / 626 CC-105/106 (West) / 625 CC-217 (West)	665 CC-114 (West) / 663 CC-222 (West) / 670 CC-111 (West) / 669 CC-113 (West) / 645 CC-301 (West)
COMP	636 CC-205 (West) / 635 CC-218/219 (West) / 634 CC-204 (West) / 601 CC-210 (West)	681 CC-214 (West) / 680 CC-218 (West)
DEF	608 CC-203 (West)	
EDUC	621 CC-224 (West)	647 CC-220 (West)
ENAR	629 CC-213 (West) / 598 CC-209 (West)	673 CC-223 (West) / 644 CC-302/303 (West)
ENVR	605 CC-120 (West)	657 CC-210 (West)
EPI	638 CC-112 (West) / 602 CC-211 (West)	684 CC-112 (West) / 656 CC-215 (West)
GOVT	617 CC-216 (West) / 630 CC-206 (West)	660 CC-121 (West)
GRPH		682 CC-221 (West)
HPSS	618 CC-214 (West)	675 CC-119 (West)
IMS	600 CC-118 (West)	662 CC-213 (West) / 658 CC-206 (West)
MEM	607 CC-223 (West)	
MKTG	615 CC-301 (West)	683 CC-18 (East)
NPAR	619 CC-117 (West) / 632 CC-121 (West) / 631 CC-116 (West)	661 CC-207 (West) / 677 CC-216 (West) / 676 CC-219 (West) / 649 CC-217 (West)
Q&P	633 CC-13 (East)	679 CC-203 (West)
RISK	640 CC-18 (East)	
SBSS	597 CC-109 (West)	659 CC-212 (West) / 674 CC-205 (West)
SDM	637 CC-202 (West) / 599 CC-201 (West)	
SIS		671 CC-13 (East)
SOC	641 CC-207 (West) / 612 CC-219 (West) / 611 CC-221 (West)	686 CC-202 (West) / 648 CC-120 (West)
SPES		678 CC-204 (West)
SRMS	639 CC-220 (West) / 614 CC-222 (West) / 613 CC-122 (West)	685 CC-110 (West) / 655 CC-122 (West) / 654 CC-109 (West) / 650 CC-211 (West)
SSC		642 CC-209 (West)
TAS		652 CC-306 (West)

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Late-Breaking Sessions

Sunday, August 1, 4:00 p.m. – 5:50 p.m.

CC-301 (West)

Session 46 - Late-Breaking Session I: Stop the Presses! A Magazine to Shout for Statistics! ASA/RSS Link Sends *Significance* Worldwide

Wednesday, August 4, 2:00 p.m. – 3:50 p.m.

CC-Ballroom C (West)

Session 550 - Late-Breaking Session II: Statistics Without Borders Post-Earthquake Efforts in Haiti

{Descriptions}

Session Tag Descriptions

We expect both theme and applied sessions to draw a diverse audience.

THEME ✪

JSM theme sessions are directly relevant to the JSM 2010 theme, "Statistics: A Key to Innovation in a Data-Centric World." Theme sessions are designed to expand the frontiers of statistical thought, emphasize new directions, and promote interdisciplinary collaboration.

APPLIED ■

JSM applied sessions have applications at the heart of the presentations. Because these sessions are grounded in applications across many areas of science and engineering, they may involve interdisciplinary work and include presentations by nonstatisticians. Applied sessions vary in scope, ranging from presentations on state-of-the-art statistical methodology applied to real-world problems to those that are tutorial in nature.

THURSDAY, JULY 29

Committee/Business Meetings & Other Activities

7:00 p.m.–8:30 p.m. FW-Royal Suite
ASA Executive Committee Working Dinner (closed)
Chair(s): Sastry Pantula, North Carolina State University

FRIDAY, JULY 30

Committee/Business Meetings & Other Activities

7:00 a.m.–3:00 p.m. FW-MacKenzie I
ASA Board of Directors Meeting (closed)
Chair(s): Sastry Pantula, North Carolina State University

9:00 a.m.–5:00 p.m. FW-Cheakamus Room
NSF Workshop: Integrating Computing into the Statistics Curriculum
Chair(s): Deborah Nolan, University of California, Berkeley

6:00 p.m.–7:30 p.m. FW-Royal Suite
JSM Staff and ASA Board of Directors Reception (by invitation only)

SATURDAY, JULY 31

Committee/Business Meetings & Other Activities

7:00 a.m.–3:00 p.m. FW-MacKenzie I
ASA Board of Directors Meeting (closed)
Chair(s): Sastry Pantula, North Carolina State University

7:30 a.m.–6:00 p.m. CC-West Registration
ASA Membership/Special Assistance/Press Desk

7:30 a.m.–6:00 p.m. CC-West Registration
JSM Main Registration

7:30 a.m.–6:00 p.m. CC-West Registration
Cyber Center

8:00 a.m.–5:00 p.m. CC-Exhibit Hall A (West)
Exhibitor Move In and Lounge

8:30 a.m.–4:30 p.m. CC-15 (East)
ASA Caucus of Academic Representatives Department Chairs' Workshop
Chair(s): Kathryn Chaloner, The University of Iowa

9:00 a.m.–5:00 p.m. FW-Cheakamus Room
NSF Workshop: Integrating Computing into the Statistics Curricula
Organizer(s): Deborah Nolan, University of California, Berkeley

9:00 a.m.–5:00 p.m. CC-Exhibit Hall B (West)
Career Placement Service (job posting and resume submission only)

11:30 a.m.–1:00 p.m. FW-Malaspina Room
Association of Clinical and Translational Statisticians (ACTS) Annual Meeting
Organizer(s): Knut M. Wittkowski, The Rockefeller University

12:00 p.m.–5:30 p.m. CC-West Registration
ASA Marketplace

12:00 p.m.–6:00 p.m. CC-103/104 (West)
Speaker Management Room

3:00 p.m.–6:00 p.m. FW-MacKenzie II
NISS/SAMSI Affiliates Meeting
Organizer(s): Alan Karr, National Institute of Statistical Sciences

6:00 p.m.–9:00 p.m. CC-18 (East)
ASA Caucus of Academic Representatives Department Chairs' Workshop Dinner
Chair(s): Kathryn Chaloner, The University of Iowa

Continuing Education (Fee Events)

CE_01C
Causal Inference
8:30 a.m.–5:00 p.m. CC-11(East)
Instructor(s): Miguel Hernan, Harvard School of Public Health; James Robins, Harvard School of Public Health

CE_02C
Methods for Designing and Analyzing Mixture Experiments
8:30 a.m.–5:00 p.m. CC-8 (East)
Instructor(s): John A. Cornell, University of Florida; Greg F. Piepel

CE_03C
Monte Carlo and Bayesian Computation with R
8:30 a.m.–5:00 p.m. CC-1 (East)
Section on Physical and Engineering Sciences, Section on Bayesian Statistical Science
Instructor(s): Jim Albert, Bowling Green State University; Maria Rizzo, Bowling Green State University

CE_04C
Some Multivariate Statistical Methods
8:30 a.m.–5:00 p.m. CC-2&3 (East)
Instructor(s): William B. Smith, Lecot Inc./Texas A&M University; Dallas E. Johnson, Kansas State University

CE_05C
Wavelets in the Real World
8:30 a.m.–5:00 p.m. CC-12 (East)
Instructor(s): Todd Ogden, Columbia University

SUNDAY, AUGUST 1

Committee/Business Meetings & Other Activities

7:30 a.m.–9:00 a.m. FW-Sechelt Room
Committee on Women in Statistics Meeting
Chair(s): Mari Palta, University of Wisconsin

7:30 a.m - 9:00 a.m. CC-108 (West)
Joint ASA-MAA Committee Meeting
Chair(s): Julie Legler, St. Olaf College

7:30 a.m.–10:00 a.m. FW-Cheakamus Room
Committee on Publications Meeting
Chair(s): David W. Scott, Rice University

7:30 a.m.–8:30 p.m. CC-West Registration
ASA Membership/Special Assistance/Press Desk

7:30 a.m.–8:30 p.m. CC-West Registration
JSM Main Registration

7:30 a.m.–10:30 p.m. CC-West Registration
Cyber Center

8:00 a.m.–9:30 a.m. FW-Malaspina Room
Association of Clinical and Translational Statisticians (ACTS) Annual Meeting
Organizer(s): Knut M. Wittkowski, The Rockefeller University

8:00 a.m.–11:00 a.m. FW-Burrard Suite
Council of Sections Governing Board
Chair(s): Sarah Nusser, Iowa State University

8:00 a.m.–11:00 a.m. CC-Exhibit Hall A (West)
Exhibitor Move In

9:00 a.m.–10:00 a.m. FW-Sechelt Room
Caucus for Women in Statistics Executive Committee Meeting
Organizer(s): Jennifer Parker, National Center for Health Statistics

9:00 a.m.–5:00 p.m. FW-Princess Louisa Suite
NISS/ASA Writing Workshop
Chair(s): Keith Crank, ASA

9:00 a.m.–5:30 p.m. CC-West Registration
ASA Marketplace

10:30 a.m.–12:00 p.m. CC-108 (West)
Accreditation Implementation Committee Meeting
Chair(s): Iain Johnstone, Stanford University

11:00 a.m.–12:00 p.m. FW-Douglas Boardroom
Journal of Agricultural, Biological, and Environmental Statistics Editorial Board Meeting
Chair(s): Carl Schwarz, Simon Fraser University

11:30 a.m.–1:30 p.m. CC-113 (West)
Statistica Sinica Editorial Board Meeting
Organizer(s): Jing-Shiang Hwang, Academia Sinica

11:30 a.m.–2:00 p.m. FW-Cheakamus Room
Leadership Support Council Meeting
Chair(s): Nancy Geller, Office of Biostat Research

12:00 p.m.–1:30 p.m. CC-106 (West)
Journal of Statistics Education Editorial Board Meeting
Chair(s): John Gabrosek, Grand Valley State University

12:30 p.m.–2:30 p.m. CC-Ballroom D (West)
JSM First-Time Attendee Orientation and Reception

1:00 p.m.–6:00 p.m. CC-Exhibit Hall B (West)
Career Placement Service (full placement service open)

1:00 p.m.–6:00 p.m. CC-Exhibit Hall A (West)
EXPO 2010

1:00 p.m.–6:00 p.m. CC-Exhibit Hall A (West)
American Statistical Association Booth #401

2:00 p.m.–4:00 p.m. CC-7 (East)
Council of Sections Business Meeting
Chair(s): Sarah Nusser, Iowa State University

4:00 p.m.–5:30 p.m. CC-105 (West)
Committee Councils (Awards) Meeting
Chair(s): Sally Morton, RTI International

4:00 p.m.–5:30 p.m. CC-113 (West)
Committee Councils (Membership) Meeting
Chair(s): Christy Chuang Stein, Pfizer Inc.

4:00 p.m.–5:30 p.m. CC-106 (West)
Committee Councils (Education) Meeting
Chair(s): Martha Aliaga, ASA; Roderick Joseph Little, University of Michigan

4:00 p.m.–5:30 p.m. CC-108 (West)
Committee Councils (Professional Issues and Visibility) Meeting
Chair(s): Nathaniel Schenker, National Center for Health Statistics

4:30 p.m.–7:30 p.m. CC-4 (East)
ENAR Executive Committee Meeting
Organizer(s): Kathy Hoskins, ENAR; Sharon-Lise Normand, ENAR

5:00 p.m.–6:00 p.m. FW-MacKenzie II
Statistics Without Borders Annual Members Meeting
Chair(s): James J. Cochran, Louisiana Tech University

5:00 p.m.–7:00 p.m. CC-107 (West)
Section on Quality and Productivity Executive Committee Meeting
Chair(s): Mark Bailey, SAS Institute

5:00 p.m.–8:00 p.m. CC-19/20 (East)
International Chinese Statistical Association (ICSA) Board Meeting
Organizer(s): Ming-Hui Chen, University of Connecticut

5:30 p.m.–7:30 p.m. CC-7 (East)
Committee on Scientific Freedom and Human Rights Committee Meeting
Chair(s): Willam Seltzer, Fordham University

5:30 p.m. - 8:00 p.m. Off Property
Section on Statistical Consulting Executive Committee Business Meeting (closed)
Chair(s): Todd G. Nick, University of Arkansas for Medical Sciences

6:00 p.m.–7:00 p.m. CC-5 (East)
Advisory Committee on Continuing Education (ACCE) Presenter Social
Chair(s): Ronald E. McRoberts, U.S. Forest Service

6:00 p.m.–7:00 p.m. FW-Douglas Boardroom
Professional Development Workshop Subcommittee Meeting
Chair(s): Martha Aliaga, ASA

6:00 p.m.–7:00 p.m. FW-MacKenzie II
ASA Special Interest Group on Statistics and Volunteerism
Chair(s): James J. Cochran, Louisiana Tech University

6:00 p.m.–7:00 p.m. CC-105 (West)
Committee on Minorities in Statistics Business Meeting
Chair(s): Brian Millen, Eli Lilly and Company

6:00 p.m.–8:30 p.m. Off Property
Biometrics Section Executive Committee Meeting
Chair(s): Barry I. Graubard, National Cancer Institute

6:30 p.m.–8:00 p.m. CC-8 (East)
Cancer Center Biostatistics Directors Annual Meeting
Organizer(s): Terry Hyslop, Thomas Jefferson University

6:30 p.m.–8:00 p.m. FW-Malaspina Room
TAMU Distance Education Program Reception
Organizer(s): Michael Speed, Texas A&M University; Simon Sheather, Texas A&M University

6:30 p.m.–8:30 p.m. FW-Terrace Room
Purdue Department of Statistics Alumni and Friends Reception
Organizer(s): Sandra Howarth, Purdue University

7:00 p.m.–8:30 p.m. CC-202 (West)
Isolated Statisticians Annual Meeting
Organizer(s): Shonda Kuiper, Grinnell College

7:30 p.m. - 8:30 p.m. FW-Burrard Suite
Statistics, Politics, and Policy Editorial Board Meeting
Organizer(s): John E. Rolph, University of Southern California

8:00 p.m.–10:30 p.m. CC-Ballroom C/D
JSM Opening Mixer
Sponsored by Eli Lilly & Co.

Continuing Education (Fee Events)

CE_01C
Causal Inference
8:30 a.m.–5:00 p.m. CC-11(East)
Instructor(s): Miguel Hernan, Harvard School of Public Health; James Robins, Harvard School of Public Health

CE_06C
Practical Bayesian Computation
8:00 a.m.–12:00 p.m. CC-2&3 (East)
Section for Statistical Programmers and Analysts
Instructor(s): Fang Chen, SAS Institute

CE_07C
Applied Data Mining
8:30 a.m.–5:00 p.m. CC-8 (East)
Instructor(s): F. Michael Speed, Texas A&M University; Tom Bohannon, Texas A&M University; J. Michael Hardin, The University of Alabama

CE_08C
Analysis of Clinical Trials: Theory and Applications
8:30 a.m.–5:00 p.m. CC-1 (East)
Biopharmaceutical Section
Instructor(s): Alex Dmitrienko, Eli Lilly and Company; Devan V. Mehrotra, Merck Research Laboratories; Keaven M. Anderson, Merck Research Laboratories

CE_09C
Regression Modeling Strategies
8:30 a.m.–5:00 p.m.
Biometrics Section CC-12 (East)
Instructor(s): Frank E. Harrell Jr., Vanderbilt University School of Medicine

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This reception is sponsored by the ASA, ENAR, IMS, SSC, WNAR, and Caucus for Women in Statistics

CE_10C

Bayesian Ecology: Hierarchical Modeling for Ecological Processes

1:00 p.m.–5:00 p.m. CC-2&3 (East)

Section on Bayesian Statistical Science

Instructor(s): Alan E. Gelfand, Duke University; James Clark, Duke University

Invited Sessions 2:00 p.m.–3:50 p.m.

1 CC-120 (West)

■ Spatial Epidemiology, GIS, and Disease Mapping—Invited

Section on Statistics in Epidemiology, *CHANCE*, ENAR, IMS, International Chinese Statistical Association, Section on Statistics in Defense and National Security, Section on Statistics and the Environment, WNAR

Organizer(s): Dongseok Choi, Oregon Health & Science University

Chair(s): Dongseok Choi, Oregon Health & Science University

2:05 p.m. Rethinking John Snow: The Statistics of Cholera—◆Tom Koch, The University of British Columbia; Kenneth Denike, The University of British Columbia

2:35 p.m. Modeling Latent Effects in Space-Time Small-Area Health Data—◆Andrew Lawson, Medical University of South Carolina

3:05 p.m. Smoke Plume Estimation from Satellite Images—Charmaine Dean, Simon Fraser University; ◆Victoria Wan, Simon Fraser University; John Braun, The University of Western Ontario; Sarah Henderson, The University of British Columbia

3:35 p.m. Floor Discussion

2 CC-109 (West)

■ Inferring Selection Mechanisms from Genomic Data—Invited

WNAR, Biometrics Section, *CHANCE*, ENAR, IMS

Organizer(s): Vladimir Minin, University of Washington

Chair(s): Vladimir Minin, University of Washington

2:05 p.m. Population-Genetic Approaches for Phylogenetic Substitution Models—◆Nicolas Rodrigue, University of Ottawa

2:35 p.m. Accurate Estimation of Evolutionary Attributes of Coding Sequences and Pattern Analysis in Large Collections of Viral and Mammalian Genes—◆Sergei L. Pond, University of California, San Diego

3:05 p.m. Inferring Selection from Large-Scale Next-Generation Sequencing Data—◆Rasmus Nielsen, University of California, Berkeley

3:35 p.m. Floor Discussion

3 CC-13 (East)

✪ Topics in Nonstandard Asymptotics—Invited

General Methodology, Business and Economic Statistics Section, IMS

Organizer(s): Moulinath Banerjee, University of Michigan

Chair(s): Michael Kosorok, The University of North Carolina at Chapel Hill

2:05 p.m. Limit Theory for Multivariate Shape Constraints: Partial Results, Open Problems, and Conjectures—◆Jon A. Wellner, University of Washington

2:35 p.m. Adaptive Confidence Intervals for Regression Coefficients in Q-Learning—Eric B. Laber, University of Michigan; Min Qian, University of Michigan; ◆Susan Murphy, University of Michigan

3:05 p.m. Inference for Change-Point Parameters Under Varying Degrees of Model Misspecification—◆Moulinath Banerjee, University of Michigan; Michael Kosorok, The University of North Carolina at Chapel Hill; Rui Song, Colorado State University

3:35 p.m. Floor Discussion

4 CC-10 (East)

■ SPAIG and the ASA Strategic Plan—Invited

SPAIG Committee, Section on Physical and Engineering Sciences

Organizer(s): Morteza Marzjarani, Saginaw Valley State University

Chair(s): Morteza Marzjarani, Saginaw Valley State University

2:05 p.m. An Overview of the ISU - LANL Collaboration: Research and Impact—◆Christine M. Anderson-Cook, Los Alamos National Laboratory

2:25 p.m. Partnership in New Drug Developments—◆Ji Zhang, sanofi-aventis; Hui Quan, sanofi-aventis; Alex Boddy, sanofi-aventis; Peng-Liang Zhao, sanofi-aventis; Stan Young, National Institute for Statistical Science

2:45 p.m. A View of SPAIG and the ASA Strategic Plan—◆William B. Smith, Lecot Inc./Texas A&M University

3:05 p.m. The Value and Need of Academic-Industry Partnerships: Two Case Studies—◆Charles Tan, Merck Research Laboratories; Boris Iglewicz, Temple University

3:25 p.m. Partnering for the Profession: The Role of SPAIG in ASA's Strategic Plan—◆Robert N. Rodriguez, SAS Institute

3:45 p.m. Floor Discussion

5 CC-211 (West)

■ ✪ How Fast Can We Compute? How Fast Will We Compute?—Invited

Section on Bayesian Statistical Science, International Chinese Statistical Association, Section on Physical and Engineering Sciences, Section on Statistical Computing

Organizer(s): Mike West, Duke University
Chair(s): Chris Hans, The Ohio State University

2:05 p.m. Cloud Computing for Bayesian Hidden Markov Models—◆Steven Lee Scott, Google

2:35 p.m. Embracing GPU Technology in Bayesian Computation: Massively Parallel Computing on Your Desktop—◆Marc Suchard, University of California, Los Angeles

3:05 p.m. Operationalizing Massively Multicore Computation for Bayesian MCMC and Stochastic Search: Clusters, Threads, Cores and GPUs—◆Quanli Wang, Duke University; Marc Suchard, University of California, Los Angeles; Andrew J. Cron, Duke University; Cliburn Chan, Duke University; Mike West, Duke University

3:35 p.m. Floor Discussion

6 CC-223 (West)

■ ✪ Modern-Day Design and Analysis of Experiments—Invited

Section on Physical and Engineering Sciences, IMS, International Chinese Statistical Association, Section on Quality and Productivity

Organizer(s): Peter Z.G. Qian, University of Wisconsin-Madison
Chair(s): Peter Z.G. Qian, University of Wisconsin-Madison

2:05 p.m. Regularized Kriging—◆Chein-Yu Peng, Academia Sinica; C.F. Jeff Wu, Georgia Institute of Technology

2:35 p.m. Optimal and Efficient Designs for Generalized Linear Models—◆John Stufken, The University of Georgia

3:05 p.m. Multistratum Fractional Factorial Designs—◆Ching-Shui Cheng, University of California, Berkeley

3:35 p.m. Floor Discussion

7 CC-17 (East)

■ ✪ Multicriteria Prioritization and Ranking Innovation with Partial Order Without Having to Integrate Multiple Indicators into an Index in Social, Environmental, and Infrastructure Data-Centric Work—Invited

Environmental and Ecological Statistics, ENAR

Organizer(s): Ganapati P. Patil, Penn State
Chair(s): Ganapati P. Patil, Penn State

2:05 p.m. Multicriteria Prioritization and Partial Order in Environmental Statistics—◆Rainer Brüggemann, Leibniz Institute for Freshwater Ecology and Inland Fisheries; Ganapati P. Patil, Penn State

2:35 p.m. Application of Partial Order to Stream Channel Assessment and Bridge Infrastructure Management—◆Jessica T. Newlin, Bucknell University; Ganapati P. Patil, Penn State

3:05 p.m. Partial Order and Rank Range Runs for Compositional Complexes in Landscape Ecology and Image Analysis, with Applications to Restoration, Remediation, and Enhancement—◆Wayne Lawrence Myers, Penn State

3:20 p.m. Disc: S.W. Joshi, Slippery Rock University

3:40 p.m. Floor Discussion

8 CC-18 (East)

■ ✪ The BC Forest Resource in a Changing Climate—Invited

Council of Chapters, *CHANCE*, Section on Statistics and the Environment, WNAR

Organizer(s): Rick Routledge, Simon Fraser University
Chair(s): Rick Routledge, Simon Fraser University

2:05 p.m. Borrowing from Survival Analysis to Assess Lumber Strength—◆Lang Wu, The University of British Columbia; Jim Zidek, The University of British Columbia; Lucy Cheng, The University of British Columbia; Sameoul Wong, Harvard University; Conroy Lum, Forintek Canada; Ciprian Pirvu, Forintek Canada

2:35 p.m. Understanding the Spatial Dynamics of Comandra Bluster Rust in British Columbia Forests—◆Charmaine Dean, Simon Fraser University; Cindy Feng, Simon Fraser University; Richard Reich, Ministry of Forests and Range

3:05 p.m. Beetles, Beetles, Everywhere Beetles: Spatial-Temporal Modeling of Outbreaks of Mountain Pine Beetle—Brian Aukema, Canadian Forest Service/Natural Resources Canada; ◆Yanbing Zheng, University of Kentucky

3:35 p.m. Floor Discussion

9 CC-301 (West)

Multiple Imputations for Survey Sampling and Their Diagnostics—Invited

Section on Survey Research Methods, IMS, Health Policy Statistics Section, WNAR

Organizer(s): Jingchen Liu, Columbia University
Chair(s): Xianchao Xie, Harvard University

2:05 p.m. Imputing with Confidence—Andew Gelman, Columbia University; ◆Jennifer Hill, New York University; Yu-Sung Su, Columbia University; Jingchen Liu, Columbia University; Sonia Todorova, Carnegie Mellon University

2:30 p.m. Multiple Imputations Quality Assessment for Survey Data—◆Jingchen Liu, Columbia University; Xiao-Li Meng, Harvard University

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LOCATION/ LIEU: FW-MacKenzie II

2:55 p.m. Diagnosing Imputation Models by Applying Target Analyses Under Posterior Replications of Observed Data—Yulei He, Harvard Medical School; ◆Alan Zaslavsky, Harvard Medical School

3:20 p.m. Multiple Imputation Framework for Combining Data from Multiple Sources—◆Trivellore Raghunathan, University of Michigan

3:45 p.m. Floor Discussion

Invited Panels 2:00 p.m.–3:50 p.m.

10 CC-306 (West)

■ ✪ Global Statistical Capacity and the Role of Statistical Societies—Invited

Social Statistics Section, Biometrics Section, IMS, Section on Government Statistics

Organizer(s): Nilupa S. Gunaratna, International Nutrition Foundation
Chair(s): Juanita Tamayo Lott, Tamayo Lott Associates

Panelists: ◆Denise Lievesley, King's College London
◆Bovas Abraham, University of Waterloo
◆Sally Morton, RTI International
◆James J. Cochran, Louisiana Tech University

3:45 p.m. Floor Discussion

11 CC-224 (West)

■ ✪ Improving the Dialogue Between the Consulting Statisticians and Nonstatisticians (e.g., Clinicians, Scientists, Regulators, and Marketers) in the Case of Nonstandard Applications—Invited

Section on Statistical Consulting, *CHANCE*, Committee on Career Development, Section on Physical and Engineering Sciences, Statistical Programmers and Analysts, Section on Quality and Productivity

Organizer(s): Birol Emir, Pfizer Inc.
Chair(s): David Madigan, Columbia University

Panelists: ◆Dhammika Amaratunga, Johnson & Johnson
◆Mohan Beltangady, Pfizer Inc.
◆Birol Emir, Pfizer Inc.
◆Roy Freeman, Harvard University
◆William E. Strawderman, Rutgers University

3:45 a.m. Floor Discussion

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

12 CC-119 (West)

■ Integrated Analysis of Family and Case-Control Data in Genetics—Topic-Contributed

Section on Statistics in Epidemiology

Organizer(s): Jeanine Houwing-Duistermaat, Leiden University Medical Center
Chair(s): Mitchell H. Gail, National Cancer Institute

2:05 p.m. On Combining Family and Case-Control Studies—◆Ruth Pfeiffer, National Cancer Institute

2:25 p.m. Estimation of Genetic Risk Parameters from Case Control and Family Studies Using a Marginalized Approach—◆Jeanine Houwing-Duistermaat, Leiden University Medical Center; Roula Tsonaka, Leiden University Medical Center; Marieke De Visser, Leiden University Medical Center; Frits Rosendaal, Leiden University Medical Center

2:45 p.m. Incorporating Evidence for Population Stratification Bias in Combined Analysis of Individual and Family Data—◆Lucia Mirea, Dalla Lana School of Public Health; Lei Sun, Dalla Lana School of Public Health; James Edward Stafford, Dalla Lana School of Public Health; Claire Infante-Rivard, McGill University; Shelley Brenda Bull, Samuel Lunenfeld Research Institute

3:05 p.m. Direct Estimation of Haplotype Frequencies in Genetic Association Studies—◆Stefan Boehringer, Leiden University Medical Center

3:25 p.m. Floor Discussion

13 CC-114/115 (West)

■ ✪ Key Applications of Statistics in Genetics/Genomics—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR, International Chinese Statistical Association

Organizer(s): Iryna Lobach, New York University School of Medicine
Chair(s): Yulia V. Marchenko, StataCorp LP

2:05 p.m. A Genomewide Association Testing Method Incorporating Linkage Disequilibrium—◆Zheyang Wu, Worcester Polytechnic Institute

2:25 p.m. Semiparametric Bayesian Analysis of Gene-Environment Interactions with Error in Measurement of Environmental Covariates and Missing Genetic Data—◆Iryna Lobach, New York University School of Medicine; Bani K. Mallick, Texas A&M University; Raymond Carroll, Texas A&M University

2:45 p.m. Detecting and Correcting for Population Genetic Structure in Large-Scale Case-Control Association Studies—◆Ilana Belitskaya-Levy, New York University School of Medicine; Iryna Lobach, New York University School of Medicine; Judith D. Goldberg, New York University School of Medicine

3:05 p.m. Using Treelets to Smooth Complicated Pedigrees—◆Andrew Crossett, Carnegie Mellon University

3:25 p.m. Maximizing Efficiency for Next-Generation Sequencing—◆Joshua Sampson, National Cancer Institute; Nilanjan Chatterjee, National Cancer Institute

3:45 p.m. Floor Discussion

14 CC-205 (West)

Improving the Practice of Statistics in the Department of Defense: A Session in Honor of John E. Rolph—Topic-Contributed

Section on Statistics in Defense and National Security, Health Policy Statistics Section

Organizer(s): Ronald D. Fricker, Naval Postgraduate School
Chair(s): Lara Schmidt, RAND Corporation

2:05 p.m. Assessing the Methodology for Testing Body Armor—◆Ronald D. Fricker, Naval Postgraduate School; Alyson Wilson, Iowa State University

2:25 p.m. Measuring Cost Growth in Weapon Systems—◆Nancy L. Spruill, Office of the Secretary of Defense

2:45 p.m. Spatio-Temporal Analysis of the Effect of Certain Interventions—◆Vijay Nair, University of Michigan

3:05 p.m. Department of Defense Testing and the Statistical Community—◆J. Michael Gilmore, Office of the Secretary of Defense; Ernest Seglie, Office of the Secretary of Defense

3:25 p.m. Disc: Duane Steffey, Exponent, Inc.

3:45 p.m. Floor Discussion

15 CC-207 (West)

■ ✪ Statistical Analysis of Brain Signals—Topic-Contributed

Biometrics Section, IMS

Organizer(s): Hernando Ombao, Brown University
Chair(s): Hernando Ombao, Brown University

2:05 p.m. Spatio-Spectral Approach in fMRI Data Analysis: An Approach to Dealing with High Dimensionality of the Data—◆Hakmook Kang, Brown University

2:25 p.m. A Bayesian Model for EEG Frequency-Domain Functional Connectivity—◆Wesley Thompson, University of California, San Diego

2:45 p.m. A Probabilistic Group Independent Component Analysis Model and a Fast Approximate Estimation Approach—◆Ying Guo, Emory University

3:05 p.m. Evolutionary Factor Analysis of EEG Data—◆Giovanni Motta, Maastricht University; Hernando Ombao, Brown University

3:25 p.m. Disc: Robert Krafty, University of Pittsburgh

3:45 p.m. Floor Discussion

16 CC-208 (West)

■ ✪ Design and Analysis Issues for Assessing Complex Joint Maternal-Fetal Genetic Effects—Topic-Contributed

Biometrics Section

Organizer(s): Jinbo Chen, University of Pennsylvania
Chair(s): Jinbo Chen, University of Pennsylvania

2:05 p.m. Investigation of Maternal Effects, Maternal-Foetal Interactions, and Parent-of-Origin Effects (Imprinting) Using Mothers and Their Offspring—◆Heather Jane Cordell, Newcastle University

2:25 p.m. Likelihood-Based Methods to Detect Maternal-Fetal Genotype Effects in Families—◆Janet Suzanne Sinsheimer, University of California, Los Angeles; Erica Childs, University of California, Los Angeles; Christina Palmer, University of California, Los Angeles; Kenneth Lange, University of California, Los Angeles

2:45 p.m. Statistical Methods for Detecting Complex Genetic and Environmental Effects with Case-Control Mother-Child Pair Data—Jinbo Chen, University of Pennsylvania; ◆Dongyu Lin, University of Pennsylvania

3:05 p.m. Statistical Dissection of Genetic Conflicts Associated with Pregnancy Complications—◆Yuehua Cui, Michigan State University; Shaoyu Li, Michigan State University

3:25 p.m. Methods for Detecting Interactions Between Genetic Polymorphisms and Prenatal Environment Exposure with a Mother-Child Design—◆Shuang Wang, Columbia University; Tian Zheng, Columbia University; Stephen Chanock, National Cancer Institute; Wieslaw Jedrychowski, Jagiellonian University; Frederica Perera, Columbia University

3:45 p.m. Floor Discussion

17 CC-210 (West)

■ Pharmaceutical Stability Shelf Life: Philosophy, Intent, and Estimation—Topic-Contributed

Biopharmaceutical Section, ENAR

Organizer(s): James Schwenke, Boehringer Ingelheim Pharmaceuticals, Inc.
Chair(s): Claude Petit, Boehringer Ingelheim Pharmaceuticals, Inc.

2:05 p.m. An Industry Perspective on Shelf Life and the PQRI Initiative—◆Pat Forenzo, Novartis Pharmaceuticals Corporation

2:25 p.m. Some Reflections About Shelf Life—◆Dennis Sandell, S5 Consulting / PQRI

2:45 p.m. Current Practices in Shelf Life Estimation—◆James Schwenke, Boehringer Ingelheim Pharmaceuticals, Inc.

3:05 p.m. The Philosophy and Intent of Stability Shelf Life—◆David Christopher, Merck & Co., Inc.

3:25 p.m. Alternative Shelf Life Estimation Methodologies—◆Walt Stroup, University of Nebraska-Lincoln; Michelle Quinlan, University of Nebraska-Lincoln

3:45 p.m. Floor Discussion

18 CC-110 (West)

■ ✪ Bayesian and Adaptive Design Applications in Early Phase Clinical Trials—Topic-Contributed

Biopharmaceutical Section, ENAR, Section on Bayesian Statistical Science, Statistical Programmers and Analysts
Organizer(s): Yuehui Wu, GlaxoSmithKline
Chair(s): Yuqiu Jiang, Jilin Normal University

2:05 p.m. Novel Phase I Design for Oncology Research—◆Linda Sun, Merck & Co., Inc.; Keaven M. Anderson, Merck Research Laboratories; Lisa Lupinacci, Merck & Co., Inc.; Yevgen Tymofyeyev, Merck & Co., Inc.

2:25 p.m. Better Learning About the MTD in Phase I Oncology Trial: A Case Study Implementing Bayesian Design Based on Continuous Reassessment Method—◆Inna Perevozskaya, Pfizer Inc.

2:45 p.m. Adaptive Designs in Dose-Finding Oncology Drug Combination Trials—◆Yuehui Wu, GlaxoSmithKline; Bingming Yi, GlaxoSmithKline; Yanmei Xu, GlaxoSmithKline

3:05 p.m. Evaluation of Dose-Finding Designs: On the Interplay Between Theory and Simulation—◆Assaf P. Oron, University of Washington; Peter Hoff, University of Washington

3:25 p.m. Expect the Unexpected: Bayesian Adaptive Dose-Finding Design in Proof-of-Concept Study—◆Feng Liu, GlaxoSmithKline

3:45 p.m. Floor Discussion

19 CC-302/303 (West)

■ ✪ Implementation Issues for Statistical Standards—Topic-Contributed

Section on Survey Research Methods
Organizer(s): John M. Bushery, U.S. Census Bureau
Chair(s): Pamela D. McGovern, U.S. Census Bureau

2:05 p.m. Establishing and Monitoring Statistical Standards in USDA-NASS—◆William L. Arends, National Agricultural Statistics Service

2:25 p.m. Implementing and Revising NCES Statistical Standards—Marilyn Seastrom, National Center for Education Statistics; ◆J. Neil Russell, National Center for Education Statistics

2:45 p.m. Revising Statistical Standards to Keep Pace with the Web—◆Jacob Bournazian, Energy Information Administration

3:05 p.m. Disc: David Morganstein, Westat

3:25 p.m. Disc: Patrick Flanagan, U.S. Census Bureau

3:45 p.m. Floor Discussion

20 CC-220 (West)

■ ✪ The American Community Survey: Update on Ongoing Research—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Robyn Sirkis, U.S. Census Bureau
Chair(s): Alfredo Navarro, U.S. Census Bureau

2:05 p.m. American Community Survey Sample Size Research—◆Steven Hefter, U.S. Census Bureau

2:25 p.m. Evaluation of the Effect on Cost and Variances of the Group Quarters Cluster Size—◆Daniel Sommers, U.S. Census Bureau; Steven Hefter, U.S. Census Bureau

2:45 p.m. Analysis of the Variances of American Community Survey Estimates of the Group Quarters Population—◆John Matthew Jordan, U.S. Census Bureau; Michael Beaghen, U.S. Census Bureau

3:05 p.m. An Analysis of Alternate Variance Estimation Methods for the American Community Survey Group Quarters Sample—◆Don Keathley, U.S. Census Bureau

3:25 p.m. Investigation of Data Release Rules for Medians, Ratios, and Zero Estimates for the American Community Survey—◆Karen Ellen King, U.S. Census Bureau

3:45 p.m. Floor Discussion

21 CC-14 (East)

■ ✪ Statistical Issues in Business Analytics—Topic-Contributed

Business and Economic Statistics Section
Organizer(s): Yasuo Amemiya, IBM T.J. Watson Research Center
Chair(s): David A. Dickey, North Carolina State University

2:05 p.m. Creating a Systematic Monitoring Process for Consumer Lending—Keith Schleicher, Capital One; Rose Brunner, Capital One; Lu Su, Capital One; ◆Leonard Roseman, Capital One

2:25 p.m. Analytics in Manufacturing: A Case Study from Aluminum Recycling—◆J. Michael Hardin, The University of Alabama; Michael D. Conerly, The University of Alabama

2:45 p.m. Efficient Designs for a Noncompensatory Choice Model—◆Qing Liu, University of Wisconsin-Madison

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3:05 p.m. Large-Scale Forecasting of Hierarchically Structured Data—◆Jonathan R.M. Hosking, IBM T.J. Watson Research Center

3:25 p.m. Social Network Analysis for Fraud Detection—◆John Clare Brocklebank, SAS Institute

3:45 p.m. Floor Discussion

22 CC-16 (East)

Environmental Statistics—Topic-Contributed

Section on Statistics and the Environment, Scientific and Public Affairs Advisory Committee

Organizer(s): Yasmin H. Said, George Mason University
Chair(s): Yasmin H. Said, George Mason University

2:05 p.m. Analysis of the Hockey Stick—◆Nan Chen, GMU

2:25 p.m. Statistician's Perspective on Paleolimate Reconstruction—◆Roger Shores, GMU

2:45 p.m. Analysis of Climategate—◆Duane King, George Mason University

3:05 p.m. Analysis of Wegman Report, National Academies, and Others—◆Sukhaynah Said, George Mason University

3:25 p.m. National Academies Analysis of the Hockey Stick and Global Warming—◆Byeonghwa Park, George Mason University

3:45 p.m. Floor Discussion

23 CC-204 (West)

■ Data Expo 2009: A Second Look at Flight Delays—Topic-Contributed

Section on Statistical Graphics, Section on Statistical Computing, Transportation Statistics Interest Group

Organizer(s): Charlotte Wickham, University of California, Berkeley
Chair(s): Charlotte Wickham, University of California, Berkeley

2:05 p.m. Visualizing Domestic Airline Traffic with SAS Software—◆Rick Wicklin, SAS Institute

2:25 p.m. Delayed, Cancelled, On Time, Boarding ... Flying in the USA—◆Adam Loy, Iowa State University; ISU Statistical Graphics Working Group, Iowa State University

2:45 p.m. Visualizing 20+ Years of Flight Data for Raleigh-Durham International Airport—◆Michael T. Crotty, SAS Institute

3:05 p.m. Airline On-Time Data Set—Michael Kane, Yale University

3:25 p.m. Visualizing and Finding Minimum Delay Flights—◆Tanujit Dey, The College of William & Mary; David Phillips, The College of William & Mary; Patrick Steele, The College of William & Mary

3:45 p.m. Floor Discussion

24 CC-121 (West)

■ New Advances in Disparity and Divergence Methods for Statistical Inference—Topic-Contributed

IMS

Organizer(s): Giles Hooker, Cornell University
Chair(s): Anand Vidyashankar, George Mason University

2:05 p.m. Nonlinear Regression and Bayesian Robustness via Disparities—◆Giles Hooker, Cornell University

2:25 p.m. Hellinger Deviance Testing for Mixture Complexity—◆An-Lin Cheng, University of Missouri-Kansas City; Anand Vidyashankar, George Mason University

2:45 p.m. Bayesian Density Estimates in Minimum Hellinger Distance Estimation—◆Yuefeng Wu, Cornell University

3:05 p.m. Divergence-Based Methods for Multivariate Association Studies—◆T.N. Sriram, The University of Georgia

3:25 p.m. Disc: Jeff Collamore, University of Copenhagen

3:45 p.m. Floor Discussion

25 CC-122 (West)

■ ✪ Nonparametric Curve Estimation—Topic-Contributed

IMS, Section on Nonparametric Statistics

Organizer(s): Sam Efromovich, UT Southwestern Medical Center
Chair(s): Jiashun Jin, Carnegie Mellon University

2:05 p.m. Nonparametric Regression with Missing Data—◆Sam Efromovich, UT Southwestern Medical Center

2:25 p.m. A Jump-Detecting Procedure Based on Spline Estimation—◆Lijian Yang, Michigan State University; Shujie Ma, Michigan State University

2:45 p.m. A Numerical Comparison of Some Rate-Efficient Nonparametric Estimates—◆Boris Levit, Queen's University

3:05 p.m. Bayesian Thresholding Rules—◆Linda Zhao, University of Pennsylvania

3:25 p.m. Parametricness, Model Identifiability, and Adaptation—◆Yuhong Yang, University of Minnesota; Wei Liu, University of Minnesota

3:45 p.m. Floor Discussion

26 CC-218/219 (West)

■ ✪ Recent Developments of Bayesian Methods with Applications to Biomedical Research—Topic-Contributed

Section on Nonparametric Statistics, Biometrics Section, Section on Bayesian Statistical Science

Organizer(s): Gang Li, University of California, Los Angeles
Chair(s): Joshua D. Habiger, National Agricultural Statistics Service/ National Institute of Statistical Sciences

2:05 p.m. Bayesian Approach to Noninferiorty Trials for Normal Means—◆Ram C. Tiwari, FDA

2:25 p.m. Modeling Dependence in Reverse Phase Protein Arrays—◆Donatello Telesca, University of California, Los Angeles; Peter Muller, MD Anderson Cancer Center; Yuan Ji, MD Anderson Cancer Center

2:45 p.m. Bivariate Semiparametric Bayesian Approach for Finding Minimum Effective Dose and Maximum Safe Dose—◆Satrajit Roychoudhury, Novartis Pharmaceuticals Corporation; Pulak Ghosh, Indian Institute of Management, Bangalore

3:05 p.m. A Joint Model for Longitudinal Measurements and Competing Risks Survival Data—◆Gang Li, University of California, Los Angeles

3:25 p.m. Disc: Robert E. Weiss, University of California, Los Angeles School of Public Health

3:45 p.m. Floor Discussion

Topic-Contributed Panel 2:00 p.m.–3:50 p.m.

27 CC-215 (West)

Statistics Education Funding from the National Science Foundation Division of Undergraduate Education—Topic-Contributed

Section on Statistical Education

Organizer(s): Stephanie Fitchett, National Science Foundation
Chair(s): Stephanie Fitchett, National Science Foundation

Panelists: ◆Dennis Davenport, National Science Foundation

◆Ginger Holmes Rowell, Middle Tennessee State University

◆Lee Zia, National Science Foundation

3:45 p.m. Floor Discussion

Contributed Sessions 2:00 p.m.–3:50 p.m.

28 CC-111/112 (West)

■ ✪ Genomewide Association Studies—Contributed

Biometrics Section

Chair(s): Xin Tian, National Institutes of Health

2:05 p.m. Eliciting and Incorporating Priors on Effect Size Distributions in Genomewide Association Studies—◆Ju-Hyun Park, National Cancer Institute; Nilanjan Chatterjee, National Cancer Institute

2:20 p.m. Order Statistics–Based Shrinkage for Multiple Estimation Adjustment with Application in Genomewide Association Study—◆Jiangang Liao, Penn State

2:35 p.m. Multiple Testing Correction Method in Genetic Association Studies with Related Individuals—◆Zuoheng Wang, Yale University

2:50 p.m. Incorporating Biological Pathways via a Markov Random Field Model in Genomewide Association Studies—◆Min Chen, Yale University; Judy Cho, Yale University; Hongyu Zhao, Yale University

3:05 p.m. A Modified Approach in Statistical Significance for Genomewide Studies—◆Nusrat Jahan, James Madison University; Pradeep Singh, Southeast Missouri State University

3:20 p.m. SNP-Based Parametric Analysis of Gene-Set Enrichment—◆Jaehoon Lee, Seoul National University; Soyeon Ahn, Seoul National University; Sohee Oh, Seoul National University; Taesung Park, Seoul National University

3:35 p.m. Gene-Based Gene Score—◆Changchun Xie, McMaster University

29 CC-116 (West)

■ ✪ Temporal and Spatial-Temporal Data—Contributed

Biometrics Section

Chair(s): Motomi Mori, Oregon Health & Science University

2:05 p.m. Additive Models with Spatio-Temporal Data—◆Xiangming Fang, East Carolina University; Kung-Sik Chan, The University of Iowa

2:20 p.m. Posterior Predictive Loss for Model Selection in Incomplete Longitudinal Data—◆Arkendu Sekhar Chatterjee, University of Florida; Michael J. Daniels, University of Florida

2:35 p.m. Skew-Elliptical Spatial Random-Effect Modeling for Areal Data with Application to Mapping Health Utilization Rates—◆Farouk Salim Nathoo, University of Victoria; Pulak Ghosh, Indian Institute of Management, Bangalore

2:50 p.m. Analysis and Modeling of Elk Brucellosis Prevalence in the Greater Yellowstone Ecosystem—◆Pritam Gupta, University of Wyoming; Jarrett J. Barber, University of Wyoming; William Hank Edwards, Wyoming Game and Fish Department; Lance Waller, Emory University; Kiona Ogle, University of Wyoming

3:05 p.m. Longitudinal Factor Analysis of Continuous and Ordinal Data—◆Bradley J. Barney, Texas A&M University; Valen Johnson, MD Anderson Cancer Center; Simon J. Sheather, Texas A&M University; Veera Baladandayuthapani, MD Anderson Cancer Center; Xin Shelley Wang, MD Anderson Cancer Center; Charles S. Cleeland, MD Anderson Cancer Center

3:20 p.m. On the Optimal Allocation of Time Points of Heterogeneous Time-Structured Data—◆Martijn P.F. Berger, Maastricht University

3:35 p.m. The Generalized Linear Mixed Model with Spatial-Temporal Data—◆J Aleong, University of Vermont

30 CC-118 (West)

■ Quantitative Trait Loci, Trees, and Gene Flow—Contributed

Biometrics Section

Chair(s): Rudy Parrish, University of Louisville

2:05 p.m. Finding Quantitative Trait Loci Genes in Experimental Crosses with Targeted Maximum Likelihood Estimation in a Semiparametric Model—◆Hui Wang, University of California, Berkeley

2:20 p.m. Using the Estimating Function Bootstrap to Obtain Adjusted *p*-Values for Quantitative Trait Mapping—◆Theodore Lystig, Boehringer Ingelheim Pharmaceuticals, Inc.

2:35 p.m. Model-Based Approaches for Characterizing Environmental Effects on Spatial Genetic Flow—◆Ephraim M. Hanks, Utah State University; Mevin B. Hooten, Utah State University

2:50 p.m. Identifying QTLs in Plant Breeding Populations with Adaptive Mixed LASSO—◆Dong Wang, University of Nebraska-Lincoln; Kent M. Eskridge, University of Nebraska-Lincoln; Jose Crossa, International Maize and Wheat Improvement Center

3:05 p.m. Statistical Phylogenetics with Nets and a Lasso—◆Alethea Rea, University of Auckland; David Bryant, University of Auckland

3:20 p.m. Is It Rare or Common? A Coalescent Tree Approach to Identify the Genetic Types of Variants Underlying Complex Diseases—◆Kaustubh Adhikari, Harvard University; Christoph Lange, Harvard School of Public Health

3:35 p.m. A Method for Estimating the Overlap of eQTLs Between Two Tissues, with Application to Skin and Lymphoblastoid Cells—◆Jun Ding, University of Michigan; Gonçalo R. Abecasis, University of Michigan

31 CC-15 (East)

✪ Long Memory—Contributed

Business and Economic Statistics Section

Chair(s): Ignacio Lobato, ITAM

2:05 p.m. Asymptotics of Self-Normalized Linear Processes with Long Memory—◆Hailin Sang, National Institute of Statistical Sciences; Magda Peligrad, University of Cincinnati

2:20 p.m. A Vector Autoregressive Approximation for an Infinite-Order Autoregressive Long Memory Process—◆Chafik Bouhaddioui, United Arab Emirates University

2:35 p.m. Asymptotic Theory for Fractionally Integrated Asymmetric Power ARCH Models—◆Kazuhiko Shinki, Wayne State University; Henry Zhengjun Zhang, University of Wisconsin-Madison

2:50 p.m. Predicting Long-Horizon Returns Using Historical Volatility: Statistical Significance and Modeling—◆Natalia Sizova, Rice University

3:05 p.m. Memory Parameter Estimation in the Presence of Level Shifts and Deterministic Trends—◆Adam McCloskey, Boston University; Pierre Perron, Boston University

3:20 p.m. Penalized Order Selection Procedure for AR Process—◆Xiaodong Lin, Rutgers University

3:35 p.m. Floor Discussion

32 CC-202 (West)

■ ✪ Bayesian Models for Health, Consumer Choice, and Recidivism—Contributed

Section on Bayesian Statistical Science

Chair(s): Natalie Cheung Hall, Eli Lilly and Company

2:05 p.m. Bayesian Modeling of Smoking Exposure During Pregnancy—◆Vanja Dukic, The University of Chicago

2:20 p.m. Estimating Epidemic Parameters of STI Transmission: A Bayesian Approach Using MCMC Techniques—◆Jeffrey M. Switchenko, Emory University; Lance Waller, Emory University

2:35 p.m. A Factor-Augmented Random Effects Model to Model the Association Between Cognitive Performance and Nutrition—◆Sherry Lin, University of California, Los Angeles; Robert E. Weiss, University of California, Los Angeles School of Public Health

2:50 p.m. Modeling Adverse Birth Outcomes Through a Factor Model for Bayesian Quantile Regression—◆Lane F. Burgette, Duke University; Jerome P. Reiter, Duke University

3:05 p.m. A Single Test Derived from Modeling Biological Heterogeneity of Multiple Serum Biomarkers via Mixture Models Using Bayesian Inference—◆Eric A. Macklin, MGH Biostatistics Center; Ying Zhou, MGH Biostatistics Center; Trenton C. Pulsipher, MGH Biostatistics Center; Steven James Skates, Massachusetts General Hospital

3:20 p.m. Bayesian Models Predicting the Return to Prison—Gail Blattenberger, The University of Utah; ◆Richard Fowles, The University of Utah; John Krantz, The University of Utah

3:35 p.m. Hierarchical Bayes Conjoint Choice Analysis via the Approximate Dependent Poisson Race Model—◆Hang Joon Kim, The Ohio State University; Steven MacEachern, The Ohio State University

33 CC-203 (West)

■ Bayesian Models for Ordinal, Binary, Item Response, and Preference Test Data—Contributed

Section on Bayesian Statistical Science
Chair(s): Joseph D. Warfield, The Johns Hopkins University

2:05 p.m. Bayesian Dynamic Item Response Models—◆Xiaojing Wang, Duke University; James Berger, Duke University; Donald Burdick, MetaMetrics, Inc.

2:20 p.m. Zero-Inflated Ordered Probit Models Using a Bayesian Approach, with an Application—◆Getachew Dagne, University of South Florida

2:35 p.m. A Semiparametric Bayesian Approach for Modeling Ordinal Survey Data—◆Saman Muthukumarana, Simon Fraser University; Tim B. Swartz, Simon Fraser University

2:50 p.m. Bayesian Models for Replicated Preference and Difference Tests—◆Suzanne Dubnicka, Kansas State University

3:05 p.m. Bayesian Finite Mixture Factor Analysis Model for Binary Responses—◆Xinming An, University of California, Los Angeles; Peter M. Bentler, University of California, Los Angeles

3:20 p.m. A Bayesian Hierarchical Model for Multirater Data with Fine Scales—◆Song Zhang, The University of Texas Southwestern Medical Center at Dallas

3:35 p.m. Floor Discussion

34 CC-221 (West)

■ ✪ Applications in Health Policy: Substance Abuse, Nutrition, and Employment—Contributed

Health Policy Statistics Section, Biometrics Section
Chair(s): Robert Gerzoff, CDC

2:05 p.m. Outpatient Substance Abuse Treatment Facilities for Women That Provide Child Care: 2008 National Survey of Substance Abuse Treatment Services (N-SSATS)—◆Sonya Vartivarian, Mathematica Policy Research, Inc.; Cathie E. Alderks, Substance Abuse and Mental Health Services Administration; Jonathan Brown, Mathematica Policy Research, Inc.

2:20 p.m. Why Substance No Intention to Use Students Use It Anyway?—◆Weimin Zhang, JBS International Inc.; Hanno Petras, JBS International Inc.; Zili Sloboda, JBS International Inc.

2:35 p.m. Statistical Issues of Measuring and Monitoring Childhood Obesity from Administrative Records: The New York City FITNESSGRAM—◆Kevin J. Konty, New York City Department of Health and Mental Hygiene

2:50 p.m. The Impact of Unemployment on Insurance Coverage in California—◆Shana Alex Lavarreda, University of California, Los Angeles Center for Health Policy Research; Jenny Chia, University of California, Los Angeles Center for Health Policy Research; Dylan Roby, University of California, Los Angeles Center for Health Policy Research; Livier Cabezas, University of California, Los Angeles Center for Health Policy Research; Richard Kronick, University of California, San Diego; Wen Jiao Lin, University of California, Los Angeles Center for Health Policy Research

3:05 p.m. An Analysis of Healthful Eating Habits Using Factor Analysis and Hierarchical Linear Modeling—◆Corey Kientoff, Iowa State University; Mack Shelley, Iowa State University

3:20 p.m. Assessing the Impact of Graduated Driver Licensing Programs on Young Adult Motor Vehicle Accident Mortality—Samir Suresh Soneji, University of Pennsylvania; ◆Hiram Beltan-Sanchez, University of Southern California

3:35 p.m. Intervention to Prevention—◆Anan Said, Georgetown University/Howard University

35 CC-217 (West)

Kernel- and Spline-Based and Slice Inference Regression—Contributed

Section on Nonparametric Statistics
Chair(s): David Hunter, Penn State

2:05 p.m. Testing for Linearity of the Nonparametric Component of a Semiparametric Generalized Linear Model—◆Chin-Shang Li, University of California, Davis

2:20 p.m. An Approach to Nonparametric Regression in Moderate Dimensions—◆Mark Reimers, Virginia Commonwealth University

2:35 p.m. On the Predictive Potential of Kernel Principal Components—◆Andreas Artemiou, Penn State; Bing Li, Penn State

2:50 p.m. An Alternative Estimation of Sliced Inverse Regression—◆Qin Wang, Virginia Commonwealth University; Xiangrong Yin, The University of Georgia

3:05 p.m. Variable Selection and Nonvarying Coefficient Identification in Varying-Coefficient Models—◆Heng Lian, Nanyang Technological University

3:20 p.m. On Minimaxity of Block Thresholded Wavelets Under Elliptical Symmetry—◆Hassan Doosti, Ferdowsi University of Mashhad

3:35 p.m. An Asymptotic Theory in the RKHS of a Second-Order Process—◆Haobo Ren, Regeneron Pharmaceuticals, Inc.; Cathy Zhao, Bristol-Myers Squibb

36 CC-201 (West)

Nonparametric Inference for Quantile and Distribution Functions—Contributed

Section on Nonparametric Statistics

Chair(s): Mi-Ok Kim, Cincinnati Children's Hospital Medical Center

2:05 p.m. Simplex Techniques for Quantile Regression Model Selection—◆Yonggang Yao, SAS Institute

2:20 p.m. Estimation of a Discrete Monotone Distribution—◆Hanna Jankowski, York University

2:35 p.m. Quantile Regression Approach to the Location-Scale Model—◆Hyokyoung (Grace) Hong, Baruch College, CUNY

2:50 p.m. Quantile Regression with the Presence of Missing Covariates—◆Yunwen Yang, University of Illinois; Ying Wei, Columbia University

3:05 p.m. Joint Quantile Regression: A Bayesian Approach—◆Surya Tokdar, Duke University

3:20 p.m. Bent Line Quantile Regression with Application to an Allometric Study of Land Mammals' Speed and Mass—◆Chenxi Li, University of Wisconsin-Madison; Ying Wei, Columbia University; Rick Chappell, University of Wisconsin-Madison; Xuming He, University of Illinois at Urbana-Champaign

3:35 p.m. Semi- and Nonparametric Quantile Regression and Forecasting of Sales-Response Panel Data—◆Harry Haupt, Bielefeld University

37 CC-222 (West)

■ ✪ Analysis and Modeling of Networks—Contributed

Section on Physical and Engineering Sciences, Transportation Statistics Interest Group

Chair(s): W. Robert Stephenson, Iowa State University

2:05 p.m. The Gap Bootstrap—◆Clifford Spiegelman, Texas A&M University; Soumendra Nath Lahiri, Texas A&M University; Justice Appiah, Nebraska Transportation Center; Laurence Rilett, Nebraska Transportation Center

2:20 p.m. Inference for Day-to-Day Dynamic Traffic Models—◆Martin Luke Hazelton, Massey University; Katharina Parry, Massey University

2:35 p.m. On Intrinsic Degeneracy of Spatial-Temporal Processes—◆Wanli Min, IBM T.J. Watson Research Center

2:50 p.m. Network-Specific Computer Traffic Modeling and Prediction—◆Joel Vaughan, University of Michigan; Stilian Stoev, University of Michigan; George Michailidis, University of Michigan

3:05 p.m. Design and Analysis of a Simulation Study on MPLS Network—◆Wenbiao Zhang, Insurance Corporation of British Columbia; Pranesh Kumar, University of Northern British Columbia

3:20 p.m. Using Bayesian Networks for Modeling the Threat Mitigation Process in Computer Security from Three Perspectives—◆Anna Valeva, Western Illinois University

3:35 p.m. Statistical Analysis of General Chaotic Networks—◆Morris Herbert Morgan III, Hampton University; Carolyn Morgan, Hampton University

38 CC-212 (West)

Resampling—Contributed

Section on Statistical Computing

Chair(s): Din Chen, Georgia Southern University

2:05 p.m. A Parametric Bootstrap Procedure for the Generalized Exponential Distribution Under Progressive Type-I Interval Censoring—◆Yuhlong Lio, The University of South Dakota; Din Chen, Georgia Southern University

2:20 p.m. A Fast Algorithm for Computing Weighted V-Statistics in Resampling—◆Chunxiao Zhou, National Institutes of Health; Diane Damiano, National Institutes of Health

2:35 p.m. Conditional Bootstrap Confidence Intervals for Classification Error Rate When a Block of Observations Is Missing—◆Hie-Choon Chung, Gwangju University; Chien-Pai Han, The University of Texas at Arlington

2:50 p.m. Bootstrap Under Nonstandard Conditions—◆Zhuqing Yu, The University of Hong Kong; Stephen M.S. Lee, The University of Hong Kong

3:05 p.m. Saddlepoint-Based Bootstrap Inference for Multivariate Quadratic Estimating Equations—◆Robert Paige, Missouri University of Science and Technology; A. Alexandre Trindade, Texas Tech University

3:20 p.m. Estimation of the Cox Model Parameters Through Kernel Resampling—◆Haiyan Bai, University of Central Florida

3:35 p.m. Floor Discussion

39 CC-213 (West)

Markov Chain Monte Carlo Methods—Contributed

Section on Statistical Computing
Chair(s): Mingqi Wu, Texas A&M University

2:05 p.m. Slice Sampling with Adaptive Multivariate Steps—◆Madeleine Thompson, University of Toronto; Radford Neal, University of Toronto

2:20 p.m. Small-World MCMC with Tempering: Ergodicity, Spectral Gap, and Applications—◆Yongtao Guan, The University of Chicago; Matthew Stephens, The University of Chicago

2:35 p.m. Using the RJMCMC Procedure for Identifying and Estimating Univariate TAR Models—◆Fabio Humberto Nieto, Universidad Nacional de Colombia; Hanwen Zhang, Santo Tom·s University; Wen Li, Iowa State University

2:50 p.m. Bayesian Analysis of Geostatistical Model with Auxiliary Lattice—◆Jincheol Park, Texas A&M University; Faming Liang, Texas A&M University

3:05 p.m. Bayesian Analysis via Stochastic Approximation Monte Carlo for Statistical Model with Intractable Normalizing Constants—◆Ick Hoon Jin, Texas A&M University; Faming Liang, Texas A&M University

3:20 p.m. Stochastic Matching Pursuit for Bayesian Variable Selection—◆Ray-Bing Chen, National University of Kaohsiung; Chi-Hsiang Chu, National University of Kaohsiung; Te-You Lai, National University of Kaohsiung; Ying Nian Wu, University of California, Los Angeles

3:35 p.m. A Posterior Split-Merge MCMC Algorithm for Mixture Models with an Unknown Number of Components—◆Erlandson Ferreira Saraiva, UFGD; Luís Aparecido Milan, UFSCar; Francisco Lusada Neto, UFSCar

40 CC-206 (West)

Assessment of Students, Instructors, and Courses—Contributed

Section on Statistical Education
Chair(s): Michael Posner, Villanova University

2:05 p.m. Toward Assessing Understanding of Prerequisite Knowledge of Sampling Distributions—Dale E. Berger, Claremont Graduate University; ◆Tisha L. Hooks, Winona State University; Michael Posner, Villanova University; Michelle Sisto, International University of Monaco

2:20 p.m. The Use and Misuse of Statistical Methods Reported in Clinical Cancer Research—◆Diane Liu, MD Anderson Cancer Center; J. Jack Lee, MD Anderson Cancer Center

2:35 p.m. Relationships Between Mathematics Anxiety, Statistics Anxiety, and Performance Among College Students—Pradeep Singh, Southeast Missouri State University; ◆Greg Branham, Mineral Area College

2:50 p.m. Validation of Statistics Teaching Inventory (STI)—◆Jiyoon Park, University of Minnesota

3:05 p.m. Online Homework: Student Attitudes and Learning Outcomes in General Economics and Business Statistics Courses—◆David Doorn, University of Minnesota, Duluth; Susan Janssen, University of Minnesota, Duluth; Maureen O'Brien, University of Minnesota, Duluth

3:20 p.m. Floor Discussion

41 CC-214 (West)

LASSO and Related Methods—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Zhiwei Zhu, Transamerica Reinsurance

2:05 p.m. Robust Group Lasso—◆Ji Young Kim, Mount Holyoke

2:20 p.m. Large-Scale Simulation Evaluation for Model Selection: Lasso and Bayesian Derivatives—◆Alan Burton Lenarcic, Harvard University; Edoardo M. Airoldi, Harvard University; Palak Patel, Harvard University

2:35 p.m. A Perturbation Method for Inference on Adaptive LASSO Regression Estimates—◆Jessica Minnier, Harvard University; Tianxi Cai, Harvard School of Public Health

2:50 p.m. The Adaptive Lasso in a High-Dimensional Sparse LAD Model—◆Xiaoli Gao, Oakland University

3:05 p.m. Variable Selection via the Lasso-Type Regularization for Structural Equation Models—◆Kei Hirose, Kyushu University; Sadanori Konishi, Kyushu University

3:20 p.m. LASSO-Patternsearch for Multivariate Bernoulli Observations with Applications—◆Bin Dai, University of Wisconsin-Madison; Stephen Wright, University of Wisconsin-Madison; Xiwen Ma, University of Wisconsin-Madison; Grace Wahba, University of Wisconsin-Madison

3:35 p.m. Floor Discussion

42 CC-117 (West)

Spatial Epidemiology and Disease Mapping—Contributed

Section on Statistics in Epidemiology, Biometrics Section
Chair(s): Ying Huang, Columbia University

2:05 p.m. Spatiotemporal Biosurveillance Under Nonhomogeneous Population—◆Sung Won Han, Georgia Institute of Technology; Seoung Bum Kim, Korea University; Kwok-Leung Tsui, Georgia Institute of Technology

2:20 p.m. Analyzing Multilevel Spatially Correlated Data Using Composite Quadratic Inference Functions—◆Yun Bai, University of Michigan; Peter Song, University of Michigan

2:35 p.m. A Bayesian Surveillance System for Detecting Clusters of Noninfectious Diseases—◆Albert Y. Kim, University of Washington

2:50 p.m. Identifying Vulnerable Populations Through an Examination of the Association Between Multipollutant Profiles and Measures of Deprivation—◆John Molitor, Imperial College, London; Jason Su, University of California, Berkeley; Sylvia Richardson, Imperial College, London; Michael Jerrett, University of California, Berkeley

3:05 p.m. Infectious Disease Spread Analysis Using the SIR Model and the Truncated Model with Applications to SARS and Novel Influenza—◆Hideo Hirose, Kyushu Institute of Technology

3:20 p.m. Mapping Local Risk Ratios of Rare Infectious Diseases with Aggregate Data—◆Nong Shang, CDC

3:35 p.m. Bayesian Tracking of Emerging Epidemics Using Ensemble Kalman Filters (EnKF)—◆Ashok Krishnamurthy, University of Colorado, Denver

43 CC-216 (West)

Topics in Testing—Contributed

Section on Statistics in Epidemiology
Chair(s): Nancy Cook, Brigham and Women's Hospital

2:05 p.m. A Comparison of Two Versions of the Hosmer-Lemeshow Goodness-of-Fit Test for Logistic Regression—◆Jana D. Canary, University of Tasmania; Leigh Blizzard, Menzies Research Institute; Ronald Barry, University of Alaska, Fairbanks; Steve John Quinn, Menzies Research Institute; David W. Hosmer, University of Massachusetts, Amherst

2:20 p.m. On Rank Score Test for Longitudinal Bent Line Quantile Model—◆Nanshi Sha, Columbia University

2:35 p.m. Goodness-of-Fit Tests for Multinomial Log-Link Regression Models—◆Leigh Blizzard, Menzies Research Institute; Steve John Quinn, Menzies Research Institute; David W. Hosmer, University of Massachusetts, Amherst; Jana D. Canary, University of Tasmania

2:50 p.m. Robust Testing in Matched Case-Control Association Studies—◆Yong Zang, The University of Hong Kong; Wing Kam Fung, The University of Hong Kong; Gang Zheng, National Institutes of Health

3:05 p.m. Tests for Conditional Association Between an Ordinal Predictor and Continuous, Binomial, or Ordinal Outcomes—◆Bryan E. Shepherd, Vanderbilt University; Chun Li, Vanderbilt University

3:20 p.m. Tests of Trend Between Disease Outcomes and Ordinal Covariates—◆Naomi Brownstein, The University of North Carolina

3:35 p.m. A Comparison of Logistic Regression Goodness-of-Fit Statistics When Applied to the Log Link—◆Steve John Quinn, Menzies Research Institute; Leigh Blizzard, Menzies Research Institute; David W. Hosmer, University of Massachusetts, Amherst

44 CC-209 (West)

Clustered Data—Contributed

Section on Statistics in Epidemiology
Chair(s): Barry I. Graubard, National Cancer Institute

2:05 p.m. A Hidden Ising Model for ChIP-chip Data Analysis—◆Qianxing Mo, Memorial Sloan-Kettering Cancer Center; Faming Liang, Texas A&M University

2:20 p.m. Model Selection for Generalized Linear Mixed Models—◆Rosanna Haut, University of California, San Diego

2:35 p.m. Alternating Logistic Regressions for Cluster Trials with Binary Outcomes—◆John S. Preisser, The University of North Carolina at Chapel Hill; Jamie Perin, The University of North Carolina at Chapel Hill; Beth Reboussin, Wake Forest University School of Medicine

2:50 p.m. Two-Stage Bridge Model for Binary Responses with Informative Cluster Size—◆Xiaoyun Li, Florida State University; Dipankar Bandyopadhyay, Medical University of South Carolina; Stuart R. Lipsitz, Brigham and Women's Hospital; Debajyoti Sinha, Florida State University; Debajyoti Sinha, Florida State University

3:05 p.m. A Simple Correlated Binomial Distribution—◆Gary Witt, Temple University

3:20 p.m. Comparing Methods of Estimating Treatment Effects on a Continuous Outcome in Multicenter Randomized Controlled Trials: A Simulation Study—◆Rong Chu, McMaster University; Lehana Thabane, McMaster University; Jinhui Ma, McMaster University; Eleanor Pullenayegum, McMaster University; Anne Holbrook, McMaster University

3:35 p.m. Tests for Proportions in the Clustered Binary Data, with Applications to Toxicological Data—Krishna Saha, Central Connecticut State University; ◆Debaraj Sen, Concordia University

Special Presentations 4:00 p.m.–5:50 p.m.

45 CC-211 (West)

Introductory Overview Lecture: Multiple Testing Using Nonparametric and Semiparametric Models—Other

ASA, ENAR, IMS, SSC, WNAR, International Indian Statistical Association, International Chinese Statistical Association, Section on Nonparametric Statistics
Organizer(s): Edsel Pena, University of South Carolina
Chair(s): Edsel Pena, University of South Carolina

4:05 p.m. Multiple Testing Using Nonparametric and Semiparametric Models—◆Peter H. Westfall, Texas Tech University

5:30 p.m. Floor Discussion

46 CC-301 (West)

Late-Breaking Session I: Stop the Presses! A Magazine to Shout for Statistics! ASA/RSS Link Sends *Significance* Worldwide—Other

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association
Organizer(s): Julian Champkin, *Significance* Magazine; Ron Wasserstein, ASA
Chair(s): Julian Champkin, *Significance* Magazine

4:05 p.m. Why We Need an Outreach Magazine for Statistics—◆Ron Wasserstein, ASA

4:15 p.m. *Significance* Magazine: What We Are, What We Try to Do, Who We Try to Do It with, and What We Hope to Be—◆Julian Champkin, *Significance* Magazine

4:25 p.m. The Application of Statistics in Addressing the Position of *Homo floresiensis* in Human Evolution—◆Karen Baab, Stony Brook University Medical Center

4:50 p.m. The Perfect Storm: Food Security and Nutrition Under Climate Change—◆Gerald Nelson, International Food Policy Research Institute

5:15 p.m. The Behavioral Wedge: Reducing Greenhouse Gas Emissions by Individuals and Households—◆Jonathan Gilligan, Climate Change Research Network

5:40 p.m. Floor Discussion

Invited Sessions 4:00 p.m.–5:50 p.m.

47 CC-223 (West)

■ Statistical Issues in Approval of Follow-On Biologics—Invited

Biopharmaceutical Section, ENAR
Organizer(s): Eric M. Chi, Amgen Inc.
Chair(s): Shein-Chung Chow, Duke University School of Medicine

4:05 p.m. Bioequivalence and Variability—◆Donald Schuirmann, FDA

4:30 p.m. Similarity Criteria for Follow-On Biologics Based on an Approach—◆Laszlo Endrenyi, University of Toronto

4:55 p.m. Extended Nonparametric Tests for Evaluation of Biosimilarity in Variability to Assess Follow-On Biologics—◆Nan Zhang, Amgen Inc.; Jun Yang, Amgen Inc.; Shein-Chung Chow, Duke University School of Medicine; Eric M. Chi, Amgen Inc.

5:20 p.m. Disc: Tony Lachenbruch, Oregon State University

5:40 p.m. Floor Discussion

48 CC-201 (West)

■ Recent Methods for Handling Massive Data Sets Appearing in *JCGS*—Invited

JCGS-Journal of Computational and Graphical Statistics, Section on Physical and Engineering Sciences, Section on Statistical Computing
Organizer(s): David A. Van Dyk, University of California, Irvine
Chair(s): David A. Van Dyk, University of California, Irvine

4:05 p.m. Using Generalized Correlation to Affect Variable Selection in Very High-Dimensional Problems—◆Hugh Miller, The University of Melbourne; Peter Hall, The University of Melbourne

4:35 p.m. Large Gaussian Covariance Matrix Estimation with Markov Structures—◆Xinwei Deng, University of Wisconsin; Ming Yuan, Georgia Institute of Technology

5:05 p.m. Discovering Sparse Covariance Structures with the Isomap—◆Amy Wagaman, Amherst College; Elizaveta Levina, University of Michigan

5:35 p.m. Floor Discussion

49 CC-109 (West)

✪ Recent Developments in Ultra High-Dimensional Learning—Invited

Section on Statistical Learning and Data Mining, IMS, Section on Physical and Engineering Sciences, Section on Nonparametric Statistics, Section on Quality and Productivity

Organizer(s): Yang Feng, Princeton University

Chair(s): Tao Huang, University of Virginia

4:05 p.m. Model-Free Feature Screening for Ultra High-Dimensional Data—◆Runze Li, Penn State; Li-Ping Zhu, Penn State; Li-Xing Zhu, Hong Kong Baptist University; Lexin Li, North Carolina State University

4:35 p.m. Revisiting Marginal Regression—◆Jiashun Jin, Carnegie Mellon University; Christopher Genovese, Carnegie Mellon University; Larry Wasserman, Carnegie Mellon University

5:05 p.m. Grouped Variables Independence Screening in Sparse Ultra High-Dimensional Feature Space—◆Rui Song, Colorado State University

5:35 p.m. Floor Discussion

50 CC-217 (West)

■ ✪ Statistical Methods for Drug Safety Surveillance Using Electronic Health Care Databases—Invited

ENAR, Health Policy Statistics Section

Organizer(s): Lingling Li, Harvard Medical School/Harvard Pilgrim Health Care Institute

Chair(s): Xiaochun Li, Indiana University School of Medicine

4:05 p.m. The OMOP Project: A Large-Scale Evaluation of Drug Safety Surveillance Algorithms in Longitudinal Databases—◆David Madigan, Columbia University; Patrick Ryan, GlaxoSmithKline

4:30 p.m. Sequential Analytic Methods for Prospective Drug Safety Surveillance—◆Lingling Li, Harvard Medical School/ Harvard Pilgrim Health Care Institute

4:55 p.m. Empirical Comparison of Different Drug Safety Signal Detection Assays Based on Incident User Designs—◆Maurice Alan Brookhart, Brigham and Women's Hospital/Harvard Medical School; Eric Brinsfield, SAS Institute

5:20 p.m. Disc: Jennifer Nelson, Group Health Center for Health Studies

5:40 p.m. Floor Discussion

51 CC-13 (East)

■ ✪ Recent Developments in Multivariate Survival Analysis—Invited

IMS, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Risk Analysis

Organizer(s): Malka Gorfine, Technion - Israel Institute of Technology

Chair(s): Li Hsu, Fred Hutchinson Cancer Research Center

4:05 p.m. Challenges and Possible Solutions for Survival Analysis with High-Dimensional Covariates—◆Sihai Dave Zhao, Harvard University/Dana-Farber Cancer Institute; Yi Li, Harvard University/Dana-Farber Cancer Institute

4:30 p.m. Recent Developments in Multivariate Survival Analysis—Ross L. Prentice, Fred Hutchinson Cancer Research Center; ◆Lei Xu, University of Washington

4:55 p.m. Semiparametric Additive Mixed Effect Model for Multivariate Failure Time Data—◆Jianwen Cai, The University of North Carolina at Chapel Hill

5:20 p.m. Time-Dependent Cross-Ratio Estimation—◆Bin Nan, University of Michigan; Tianle Hu, University of Michigan; Xihong Lin, Harvard School of Public Health; James Robins, Harvard School of Public Health

5:45 p.m. Floor Discussion

52 CC-114/115 (West)

■ ✪ Statistical Methods for Spatial Longitudinal/ Functional Data—Invited

Section on Statistical Computing, IMS, International Chinese Statistical Association, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statistics and the Environment, WNAR

Organizer(s): Veera Baladandayuthapani, MD Anderson Cancer Center

Chair(s): Veera Baladandayuthapani, MD Anderson Cancer Center

4:05 p.m. Automated, Robust Analysis of Quantitative Image Data Using Functional Mixed Models and Isomorphic Basis-Space Modeling—◆Jeffrey S. Morris, MD Anderson Cancer Center; Veera Baladandayuthapani, MD Anderson Cancer Center; Hongxiao Zhu, MD Anderson Cancer Center

4:30 p.m. Hierarchical Spatial Models for Predicting Forest Variables Over Large Heterogeneous Domains—◆Sudipto Banerjee, University of Minnesota; Andrew Finley, Michigan State University

4:55 p.m. Wavelet-Based Functional Linear Regression—◆Yihong Zhao, Columbia University; Todd Ogden, Columbia University

5:20 p.m. Dynamic Multiscale Analysis of Functional MRI Data—◆Marco Ferreira, University of Missouri; Nilotpal Sanyal, University of Missouri

5:45 p.m. Floor Discussion

53 CC-10 (East)

■ ✪ Combining Indirect Evidence or Evidence from Independent Sources for Inference—Invited

IMS, ENAR, Health Policy Statistics Section, Section on Nonparametric Statistics, WNAR

Organizer(s): Minge Xie, Rutgers University; Douglas G. Simpson, University of Illinois at Urbana-Champaign
Chair(s): L. J. Wei, Harvard University

4:05 p.m. Combining Indirect Evidence or Evidence from Independent Sources—◆Ingram Olkin, Stanford University

4:30 p.m. Confidence Distributions and a Unifying Framework for Meta-Analysis—◆Minge Xie, Rutgers University

4:55 p.m. Semisupervised Learning with Additive Models—◆Mark Culp, West Virginia University

5:20 p.m. Disc: Lu Tian, Stanford University

5:40 p.m. Floor Discussion

Invited Panels 4:00 p.m.–5:50 p.m.

54 CC-224 (West)

■ ✪ Statistics Degree Programs in a Data-Centric World: What Needs to Change?—Invited

Section on Statistical Education, Section on Bayesian Statistical Science, Section on Physical and Engineering Sciences, Section on Quality and Productivity

Organizer(s): Jessica Utts, University of California, Irvine
Chair(s): Jessica Utts, University of California, Irvine

Panelists:
◆Douglas G. Simpson, University of Illinois at Urbana-Champaign
◆James Rosenberger, Penn State
◆Christopher Malone, Winona State University
◆Raymond Bain, Merck Research Laboratories
◆Dalene Stangl, Duke University
◆Eileen King, Cincinnati Children's Hospital Medical Center

5:45 p.m. Floor Discussion

55 CC-306 (West)

■ ✪ Undergraduate Education in Statistical Science: Which Student's Transcript 'Wins'?—Invited

Committee on Career Development, Section on Statistical Education, Statistical Programmers and Analysts

Organizer(s): Ralph G. O'Brien, Case Western Reserve University
Chair(s): Ralph G. O'Brien, Case Western Reserve University

Panelists:
◆John E. Boyer, Kansas State University
◆Ron Fecso, U.S. Government Accountability Office
◆Janet M. Myhre, Claremont McKenna College
◆Todd G. Nick, University of Arkansas for Medical Sciences
◆Jean M. Riley, Lockheed Martin
◆Edward D. Rothman, University of Michigan

5:45 p.m. Floor Discussion

Topic-Contributed Sessions 4:00 p.m.–5:50 p.m.

56 CC-16 (East)

■ ✪ Advances in Nonparametric Multiscale Methods for Nonstationary Time Series—Topic-Contributed

Section on Nonparametric Statistics

Organizer(s): Piotr Fryzlewicz, London School of Economics
Chair(s): Bonnie Kathryn Ray, IBM T.J. Watson Research Center

4:05 p.m. Investigating Dependence in Multivariate Time Series—◆Hernando Ombao, Brown University; Mark Fiecas, Brown University; Cristina Gorrostieta, Brown University

4:25 p.m. Costationarity of Locally Stationary Time Series—◆Guy Nason, University of Bristol; Alessandro Cardinali, University of Bristol

4:45 p.m. Multiscale Nonparametric Spectrum Estimation with Missing Observations—◆Thomas C.M. Lee, University of California, Davis; Zhengyuan Zhu, Iowa State University

5:05 p.m. Thick-Pen Transformation for Time Series—◆Piotr Fryzlewicz, London School of Economics; Hee-Seok Oh, Seoul National University

5:25 p.m. Floor Discussion

57 CC-209 (West)

■ Statistical Methods for Assessing Anti-Tumor Activity—Topic-Contributed

Biopharmaceutical Section, Biometrics Section, ENAR
Organizer(s): Maiying Kong, University of Louisville
Chair(s): J. Jack Lee, MD Anderson Cancer Center

4:05 p.m. Statistical Modeling of Tumor Regrowth and the Assessment of Drugs Synergy in Animal Experiments—◆Eugene Demidenko, Dartmouth Medical School

4:25 p.m. Assessment of Drug Effects in Xenograft Models Using Constrained Parametric Maximum Likelihood Estimations—◆Hong-Bin Fang, University of Maryland Greenebaum Cancer Center

4:45 p.m. Statistical Inference for Tumor Growth Delay Data—◆Jianrong Wu, St. Jude Children's Research Hospital

5:05 p.m. Applications of Smoothing Splines to Assessing Antitumor Activity in Xenograft Models—◆Maiying Kong, University of Louisville

5:25 p.m. A Projection of True-Benefit, No-Benefit, Overdiagnosis and Unnecessary Probabilities in Tumor Screening—◆Dongfeng Wu, University of Louisville; Gary L. Rosner, MD Anderson Cancer Center

5:45 p.m. Floor Discussion

58 CC-210 (West)

■ ✪ Undergraduates as Active Contributors to Research Projects—Topic-Contributed

WNAR, Section on Statistical Education
Organizer(s): Peter Guttorp, University of Washington/Norwegian Computing Center
Chair(s): Peter Guttorp, University of Washington/Norwegian Computing Center

4:05 p.m. Connecting Undergraduates with Faculty Research Projects—◆June Morita, University of Washington

4:25 p.m. Statistical Methods for Missing Partnership Data in HIV Transmission Research—◆Ayn Leslie-Cook, University of Washington

4:45 p.m. Visualization of a Stochastic Hematopoietic Stem Cell Model—◆Angie Zhu, University of Washington; Janis L. Abkowitz, University of Washington; Peter Guttorp, University of Washington/Norwegian Computing Center

5:05 p.m. Characterization of Space Weather Triggering Signals in Highly Variable Temporal Data: Challenges and Solutions—◆Tia Lerud, University of Washington

5:25 p.m. Disc: Martina Morris, University of Washington

5:45 p.m. Floor Discussion

59 CC-221 (West)

■ ✪ Statistical Issues of the Federal Race to the Top Program for K–12 Education—Topic-Contributed

Social Statistics Section, Section on Government Statistics, Scientific and Public Affairs Advisory Committee
Organizer(s): Daniel F. McCaffrey, RAND Corporation
Chair(s): Matthew G. Springer, Vanderbilt University

4:05 p.m. Value-Added Assessment Models with Continuous and Categorical Responses—◆Sharon Lohr, Arizona State University; Jennifer Broatch, Arizona State University

4:25 p.m. Using Performance on the Job to Inform Teacher Tenure Decisions—◆Dan Goldhaber, University of Washington; Michael Hansen, The Urban Institute

4:45 p.m. Estimating Composite Measures of Teacher Effectiveness—◆Douglas O. Staiger, Dartmouth College

5:05 p.m. The Validity and Reliability of Value-Added Measures of Education Performance and Implications for Policy—◆Douglas N. Harris, Wisconsin Center for Education Research

5:25 p.m. Floor Discussion

60 CC-220 (West)

■ Adaptive Designs: How Flexible Are They?—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Vipin Arora, Takeda Global Research & Development Center, Inc.
Chair(s): Barry Davis, The University of Texas at Houston

4:05 p.m. Bayesian Adaptive Designs for Dose Escalation Studies—◆Anna Elizabeth McGlothlin, Eli Lilly and Company

4:25 p.m. Two-Stage Adaptive Design for Bioequivalence: Methods and Application—◆Yi-Lin Chiu, Abbott Global Pharmaceuticals Research and Development; Yannis Jemiai, Cytel Inc.; Charles Locke, Abbott Laboratories; Pralay Senchaudhuri, Cytel Inc.

4:45 p.m. Using Bayesian Adaptive Designs for FDA Event Safety Studies—◆Jason Connor, Berry Consultants, LLC; Scott Berry, Berry Consultants, LLC; Donald Arthur Berry, MD Anderson Cancer Center

5:05 p.m. A Bayesian Dose-Finding Design Adapting to Efficacy and Tolerability Response—◆S. Krishna Padmanabhan, Pfizer Inc.; Scott Berry, Berry Consultants, LLC; Vladimir Dragalin, Pfizer Inc.; Michael Krams, Pfizer Inc.

5:25 p.m. Disc: Marian Fisher, University of Wisconsin

5:45 p.m. Floor Discussion

61 CC-218/219 (West)

■ Statistical Methods in Medical Device Studies—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Jianxiong Chu, FDA; Vivek Pradhan, Boston Scientific Corporation
Chair(s): Joe William Bero, Boston Scientific Corporation

4:05 p.m. Follow-Up of Subjects in Event Rates for Periodic Safety Monitoring Reports in Open Enrollment Clinical Trials—◆Maria Carola Alfaro, Boston Scientific Corporation

4:25 p.m. Issues of Missing Data in Orthopedic Implant Clinical Trials: A Regulatory Reviewer's Perspective—◆Jianxiong Chu, FDA

4:45 p.m. Assessment of Exact Patient Year Method for Clinical Outcome in Drug-Eluting Stent Trials—◆Peter Lam, Boston Scientific Corporation; Heather Bai, Boston Scientific Corporation; Jian Huang, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation

5:05 p.m. A Perspective on the Connection Between Bayesian and Frequentist Approaches—◆Jin Wang, Abbott Vascular

5:25 p.m. Design of Nonrandomized Medical Device Trials Based on Subclassification Using Propensity Score Quintiles—◆Greg Maislin, Biomedical Statistical Consulting; Donald B. Rubin, Harvard University

5:45 p.m. Floor Discussion

62 CC-214 (West)

Design and Analysis of Thorough QTc Clinical Trials—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Joanne Zhang, FDA
Chair(s): Yi Tsong, CDER/FDA

4:05 p.m. Statistical Characterization of QT Prolongation—◆Robert Schall, University of the Free State

4:25 p.m. A Comparison of Several Methods for Analyzing Data from Thorough QT Studies—◆Hong Tian, Johnson & Johnson; Wenqian Qiao, Rutgers University; Jaya Natarajan, Johnson & Johnson

4:45 p.m. Exposure-Response Modeling Approach for Assessing QT Effect in 'Thorough' QT/QTc Studies—◆Balakrishna Sadashiv Hosmane, Northern Illinois University; Charles Locke, Abbott Laboratories; Yi-Lin Chiu, Abbott Global Pharmaceuticals Research and Development

5:05 p.m. A Novel Bayesian Approach to Assessing the Risk of QT Prolongation—◆Suraj Anand, Novartis Pharmaceuticals Corporation; Sujit Kumar Ghosh, North Carolina State University

5:25 p.m. Disc: Joanne Zhang, FDA

5:45 p.m. Floor Discussion

63 CC-119 (West)

Grid Computing—Topic-Contributed

Section on Statistical Computing
Organizer(s): Yasmin H. Said, George Mason University
Chair(s): Peng Wang, University of Illinois at Urbana-Champaigne

4:05 p.m. Grid Computing, Cloud Computing, and P2P Grid Environment—◆Abdullah A. Alnoshan, The George Washington University; Shmuel Rotenstreich, The George Washington University

4:25 p.m. Applications to Grid Computing—Abdullah A. Alnoshan, The George Washington University; Shmuel Rotenstreich, The George Washington University; ◆Adel Rajput, B. Point

4:45 p.m. Grid-Type Architectures—◆Shmuel Rotenstreich, The George Washington University; Abdullah A. Alnoshan, The George Washington University

5:05 p.m. Networks and Computing—◆Muhannad Said, GMU

5:25 p.m. Evolution of Grid Computing—Abdullah A. Alnoshan, The George Washington University; Shmuel Rotenstreich, The George Washington University; ◆Umair Umair, The George Washington University

5:45 p.m. Floor Discussion

64 CC-18 (East)

Student Paper Competition: Bayesian Nonparametric and Semiparametric Methods—Topic-Contributed

Section on Bayesian Statistical Science
Organizer(s): Alyson Wilson, Iowa State University
Chair(s): Megan Higgs, Montana State University

4:05 p.m. Nonparametric Bayes Stochastically Ordered Latent Class Models—◆Hongxia Yang, Duke University; David Dunson, Duke University

4:25 p.m. An Application of Semiparametric Bayesian Isotonic Regression to the Study of Radiation Effects in Spaceborne Microelectronics—◆Marian Farah, University of California, Santa Cruz; Athanasios Kottas, University of California, Santa Cruz; Robin D. Morris, Universities Space Research Association

4:45 p.m. Flexible Bent-Cable Models for Mixture Longitudinal Data—◆Shahedul Ahsan Khan, University of Waterloo; Grace Chiu, CSIRO; Joel A. Dubin, University of Waterloo

5:05 p.m. Bayesian Nonparametric Modeling Approach to Risk Assessment from Developmental Toxicity Studies—◆Kassandra Fronczyk, University of California, Santa Cruz; Athanasios Kottas, University of California, Santa Cruz

5:25 p.m. Sparse Bayesian Infinite Factor Models—◆Anirban Bhattacharya, Duke University; David Dunson, Duke University

5:45 p.m. Floor Discussion

65 CC-121 (West)

■ ✪ Integration of Administrative Records Data with Sample Surveys—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): John L. Eltinge, Bureau of Labor Statistics
Chair(s): Rochelle (Shelly) Wilkie Martinez, Office of Management and Budget

4:05 p.m. Comparison of Multiple Sources of Administrative and Survey Data for Consumer Expenditures—◆John L. Eltinge, Bureau of Labor Statistics

4:25 p.m. Evaluating Prospective Integration of Survey and Administrative Record Data: The Impact of Uncertainty in Measurement of Data Quality and Cost Factors—◆Randall Powers, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

4:45 p.m. An IRS View on Federal Tax Data for Statistical Purposes: Challenges and Possibilities—◆Nicholas Greenia, IRS

5:05 p.m. Disc: Mark Denbaly, U.S. Department of Agriculture

5:25 p.m. Floor Discussion

66 CC-216 (West)

Social Network Analysis: Methods and Examples—Topic-Contributed

Health Policy Statistics Section, IMS, Section on Statistics and Marketing, Section on Statistics in Defense and National Security, Section on Survey Research Methods
Organizer(s): Sowmya Rao, MGH Biostatistics Center
Chair(s): Sowmya Rao, MGH Biostatistics Center

4:05 p.m. Network Model-Assisted Prevalence Estimation from Respondent-Driven Sampling Data—◆Krista J. Gile, Nuffield College; Mark S. Hancock, University of California, Los Angeles

4:25 p.m. Marginally Specified Hierarchical Models for Networks and Relational Data: An Application to Health Policy—◆Andrew C. Thomas, Carnegie Mellon University; Joseph Blitzstein, Harvard University

4:45 p.m. Modeling Networks When Data Are Missing or Sampled—◆Mark Stephen Handcock, University of California, Los Angeles; Krista J. Gile, Nuffield College

5:05 p.m. Degrees of Uncertainty with Uncertain Degrees in Respondent-Driven Sampling—◆Joseph Blitzstein, Harvard University

5:25 p.m. Disc: Mark Glickman, Boston University/CHQOER

5:45 p.m. Floor Discussion

67 CC-203 (West)

■ metRology: A New R Package for Applications in Measurement Science—Topic-Contributed

Section on Quality and Productivity
Organizer(s): William F. Guthrie, National Institute of Standards and Technology
Chair(s): Daniel Samarov, National Institute of Standards and Technology

4:05 p.m. metRology: A New R Package for Measurement Science—◆Stephen L.R. Ellison, Laboratory of the Government Chemist

4:25 p.m. Interlaboratory Studies and the metRology Package in R—◆James H. Yen, National Institute of Standards and Technology

4:45 p.m. Using R for Assessing Measurement Uncertainty—◆Hung-Kung Liu, National Institute of Standards and Technology; William F. Guthrie, National Institute of Standards and Technology; Antonio Possolo, National Institute of Standards and Technology; Stephen L.R. Ellison, Laboratory of the Government Chemist

5:05 p.m. An Excel Interface for Functions in the metRology Package—◆William F. Guthrie, National Institute of Standards and Technology; Hung-Kung Liu, National Institute of Standards and Technology

5:25 p.m. Disc: Connie M. Borror, Arizona State University West

5:45 p.m. Floor Discussion

68 CC-122 (West)

■ ✪ Recent Record Linkage at the U.S. Census Bureau—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Jana Asher, StatAid
Chair(s): Juan Rosa Carlos, StatAid

4:05 p.m. Census Coverage Measurement Initial Housing Unit Matching Activities—◆Diane Cronkite, U.S. Census Bureau

4:25 p.m. Fast Record Linkage of Very Large Files in Support of Decennial and Administrative Records Projects—◆William Winkler, U.S. Census Bureau

4:45 p.m. Current Records Linkage Research and Practice at the U.S. Census Bureau—◆Dean Resnick, U.S. Census Bureau; Dean Resnick, U.S. Census Bureau

5:05 p.m. Disc: Jana Asher, StatAid

5:25 p.m. Disc: Fritz Scheuren, NORC

5:45 p.m. Floor Discussion

Topic-Contributed Panel
4:00 p.m.–5:50 p.m.

69 CC-215 (West)
Statistics in the Community: Present and Future—Topic-Contributed

Section on Statistical Consulting, Section on Quality and Productivity, Section on Teaching of Statistics in the Health Sciences
Organizer(s): Jonathan Hobbs, Iowa State University
Chair(s): Jessica Chapman, St. Lawrence University

Panelists: ◆Jonathan Hobbs, Iowa State University
◆Kim Van Kerckhove, Hasselt University
◆Benjamin Pope, The University of Arizona
◆David Rockoff, Iowa State University

5:45 p.m. Floor Discussion

Contributed Sessions
4:00 p.m.–5:50 p.m.

70 CC-213 (West)
■ ✪ Microarrays—Contributed

Biometrics Section
Chair(s): Lisa McShane, National Cancer Institute

4:05 p.m. rth-Rank Ordered Statistic for Microarray Meta-Analysis—◆Chi Song, University of Pittsburgh; George Tseng, University of Pittsburgh

4:20 p.m. Informed Bayesian Biclustering of Microarray Data—◆Lisa Pham, Boston University; Mayetri Gupta, Boston University; Surajit Ray, Boston University; Eric Kolaczyk, Boston University

4:35 p.m. Overcoming Adverse Effects of Correlations in Microarray Data Analysis—◆Linlin Chen, Rochester Institute of Technology; Alexander Gordon, University of North Carolina Charlotte; Galina Glazko, University of Rochester

4:50 p.m. A Close Examination of Double Filtering with Fold Change and t Test in Microarray Analysis—◆Jing Cao, Southern Methodist University

5:05 p.m. An Improved Variance-Smoothing Method for Testing Differential Expression in Small-Sample-Size Affymetrix Oligonucleotide Microarrays—◆Parul Gulati, The Ohio State University; David Jarjoura, The Ohio State University; Soledad Fernandez, The Ohio State University; Lianbo Yu, The Ohio State University; Michael Pennell, The Ohio State University

5:20 p.m. Analysis and Integration of Cytosine Methylation and Gene Expression Data in Breast Cancer—◆Melissa Fazzari, Albert Einstein College of Medicine

5:35 p.m. Floor Discussion

71 CC-207 (West)
Logistic Regression and Binominal Distribution—Contributed

Biometrics Section
Chair(s): Abu Minhajuddin, The University of Texas Southwestern Medical Center at Dallas

4:05 p.m. Development of the Logistic Regression with Factor Scores (LRFS) Method in Differential Item Functioning (DIF) Detection for Dichotomized Variables—◆Chengwu Yang, Penn State; Elizabeth Garrett-Mayer, Medical University of South Carolina; Barbara C. Tilley, The University of Texas Health Science Center at Houston; Jeanne A. Teresi, Columbia University Stroud Center; Richard N. Jones, Hebrew Rehabilitation Center for Aged; Rickey E. Carter, Mayo Clinic; Vanessa K. Hinson, Medical University of South Carolina

4:20 p.m. Methods of Finding the Initial Values of Parameters in the Maximum Likelihood Estimating Equations for a Logistic Regression Model and Comparison of Their Final Solutions—◆Hiya Banerjee, University of California, Riverside; Subir Ghosh, University of California, Riverside

4:35 p.m. Application of Anbar's Approach to Hypothesis Testing to Detect the Difference Between Two Proportions—◆Ananya Roy, University of Nebraska-Lincoln; Julia Soulakova, University of Nebraska-Lincoln

4:50 p.m. A Combined Estimation Procedure for Logistic Regression with Errors-in-Covariates—◆Jian Chen, Eli Lilly and Company; John J. Hanfelt, Emory University; Yijian Huang, Emory University

5:05 p.m. Examining the Bias of the Difference in Coefficients Method for Evaluating Intermediate Endpoints Using Logistic Regression—◆Miranda Elaine Kroehl, University of Colorado, Denver; Lorraine Ogden, University of Colorado, Denver

5:20 p.m. Floor Discussion

72 CC-222 (West)
■ Applications of Survival Analyses in Clinical Trials—Contributed

Biopharmaceutical Section, Biometrics Section, Section on Risk Analysis
Chair(s): Charmaine Dean, Simon Fraser University

4:05 p.m. On the Clinical Meaningfulness of a Treatment's Effect on a Time-to-Event Variable—◆Qi Jiang, Amgen Inc.; Steven Snapinn, Amgen Inc.

4:20 p.m. Inference on Treatment Effect Under a Density Ratio Model and Random Censoring—◆Shan Jiang, Queen's University; Dongsheng Tu, Queen's University

4:35 p.m. Exploring Center Effects in Randomized Studies with Censored Endpoints—◆Richard McNally, Celgene Corporation; Sarah H. Kogut, Celgene Corporation

4:50 p.m. Interval-Censored Time-to-Event Data in Clinical Trials: Analyzing and Designing—◆Xing Sun, Merck & Co., Inc.; Cong Chen, Merck & Co., Inc.

5:05 p.m. Kaplan-Meier Estimate and Its Modified CI—◆Dixi Xue, Merck & Co., Inc.

5:20 p.m. Predicting Data Cut-Off Dates for Event-Driven Randomized Survival Clinical Trials Before and During Study Conduct—◆Ying Tian, Amgen Inc.; Alan Rong, Amgen Inc.; Michael Wolf, Amgen Inc.; Alicia Zhang, Amgen Inc.

5:35 p.m. Floor Discussion

73 CC-208 (West)

■ Various Topics in Clinical Trials—Contributed

Biopharmaceutical Section

Chair(s): Samir Lababidi, FDA

4:05 p.m. Phase I Studies: Goals, Patient Selection, and Implications for Design—◆Paul H. Frankel, City of Hope; Stephen Shibata, City of Hope; Susan Groshen, University of Southern California, Norris; Jeffrey Longmate, City of Hope; Stella Khoo, City of Hope; Edward Newman, City of Hope

4:20 p.m. An Evaluation of a Simon 2-Stage Phase II Clinical Trial Design Incorporating Continuous Toxicity Monitoring—◆Herman Ray, University of Louisville; Shesh Rai, University of Louisville

4:35 p.m. Exact Two-Stage Designs for Phase II Clinical Trials with Rank-Based Endpoints—Gregory E. Wilding, State University of New York at Buffalo; ◆Guogen Shan, State University of New York at Buffalo; Alan Hutson, State University of New York at Buffalo

4:50 p.m. Quantile Regression Extended to Mixed Models—◆Michelle Quinlan, University of Nebraska-Lincoln; Walt Stroup, University of Nebraska-Lincoln

5:05 p.m. Paradoxical Gains in Sensitivity and Specificity with Parallel Screening—◆Daniel Paul Reyner, Zimmer, Inc.; Mark F. Schinsky, Castle Orthopaedics and Sports Medicine, S.C.; Craig J. Della Valle, Midwest Orthopaedics at Rush; Wayne G. Paprosky, Midwest Orthopaedics at Rush; Scott M. Sporer, Midwest Orthopaedics at Rush

5:20 p.m. Robust Parametric Classification and Variable Selection—◆Eric Chi, Rice University; David W. Scott, Rice University

5:35 p.m. Two-Locus Analysis for Genomewide Association Studies—◆Shurong Fang, Michigan Technological University; Qiuying Sha, Michigan Technological University

74 CC-9 (East)

Finance—Contributed

Business and Economic Statistics Section

Chair(s): Tatsuyoshi Okimoto, Hitotsubashi University

4:05 p.m. The Time of Ruin and Surplus Before Ruin with Mixture Distribution—◆Min Deng, Maryville University

4:20 p.m. Residential Property Valuation Using Quantile Regression—◆John F. Wellington, Indiana University Purdue University Fort Wayne; Stephen A. Lewis, Mongrel Works, Inc.

4:35 p.m. Modeling the Dynamics of Corporate Credit Ratings: Estimating Ratings Transitions—◆Terri Anna Johnson, North Carolina State University; Meghan Rachel Kent, North Carolina State University

4:50 p.m. Multi-Logit MAR Models for High-Frequency Financial Data—◆Musen Wen, University of California, Riverside; Keh-Shin Lii, University of California, Riverside

5:05 p.m. Bayesian Analysis of Bivariate Mixture Transition Distribution Models—◆Huiming Song, University of California, Riverside

5:20 p.m. Stochastic Hybrid System—◆Daniel Siu, University of South Florida

5:35 p.m. On Another Form of Price Asymmetry: Detection at a Popular Restaurant Chain—◆Leo T. Upchurch, Tuskegee University; Chia L. Chen, Tuskegee University

75 CC-212 (West)

■ ✪ Survival Data Analysis—Contributed

ENAR, Section on Risk Analysis

Chair(s): Adin Andrei, University of Wisconsin-Madison

4:05 p.m. A Parametric Test for Correlated Time-to-Event Data with a Failure Rate Change—Gang Han, Moffitt Cancer Center & Research Institute; ◆Ji-Hyun Lee, Moffitt Cancer Center & Research Institute

4:20 p.m. Parametric and Nonparametric Survival Analysis of Cancer Data—◆Bong-Jin Choi, University of South Florida; Chris P. Tsokos, University of South Florida

4:35 p.m. Determination of Optimal Cut Point for Competing Risks Data—◆Jeong Youn Lim, University of Pittsburgh; Jong-Hyeon Jeong, University of Pittsburgh

4:50 p.m. Pointwise Nonparametric Maximum Likelihood Estimator of Survivor Functions Under Stochastic Ordering Constraint—◆Yong Seok Park, University of Michigan; Jeremy Taylor, University of Michigan; John David Kalbfleisch, University of Michigan

5:05 p.m. Bayesian Influence Methods with Missing Covariates in Survival Analysis—◆Diana Lam, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Hongtu Zhu, The University of North Carolina at Chapel Hill

5:20 p.m. Floor Discussion

76 CC-15 (East)

Dimension Reduction in Nonparametrics—Contributed

Section on Nonparametric Statistics
Chair(s): T.N. Sriram, The University of Georgia

4:05 p.m. Asymptotically Sufficient Statistics in Nonparametric Regressions with Correlated Errors—◆Andrew Carter, University of California, Santa Barbara

4:20 p.m. Model Selection Approach for Mixture Complexity Estimation Using L2 Distance—◆Umashanger Thayasivam, Rowan University; T.N. Sriram, The University of Georgia

4:35 p.m. Dimension Reduction with Categorical Predictors via Likelihood Approach—◆Xuerong Wen, Missouri University of Science and Technology

4:50 p.m. Dimension Reduction for the Conditional k-th Moment in Regression via Central Solution Space—◆Yuexiao Dong, Temple University; Zhou Yu, East China Normal University

5:05 p.m. Dimension-Reduced Kernel Estimation for Distribution Functions with Incomplete Data—◆Zonghui Hu, National Institutes of Health

5:20 p.m. Adaptive Estimation in High-Dimensional Response Surface Models via Iterative Thresholding Regularization—◆Samir Touzani, French Institut of Petroleum; Anestis Antoniadis, University Joseph Fourier; Daniel Busby, French Institut of Petroleum

5:35 p.m. Nonparametric Autoregression and Volatility Estimation—◆Jin-Hong Park, College of Charleston

77 CC-202 (West)

■ ✪ Reliability Modeling and Design—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity
Chair(s): Allan T. Mense, Raytheon Company

4:05 p.m. Reliability Data Analysis for Designed Experiments—◆Laura June Freeman, Virginia Tech; Geoffrey Vining, Virginia Tech

4:20 p.m. Flexible Distribution Modeling and Efficient Test Effort Allocation in Inkjet Pen Development—◆Robert O'Donnell, Hewlett-Packard

4:35 p.m. A Life-Time Model with Random Number of Components in a Series System—◆Ram C. Tripathi, The University of Texas at San Antonio; Ramesh C. Gupta, University of Maine

4:50 p.m. Failure Rate of the Mixture of Two Skew Normal Variables—◆Pushpa L. Gupta, University of Maine; Ramesh C. Gupta, University of Maine

5:05 p.m. Small Sample Tests for Shape Parameter(s) of Gamma Distributions—Dulal Bhaumik, University of Illinois at Chicago; Robert D. Gibbons, University of Illinois at Chicago; Kush Kapur, University of Illinois at Chicago; ◆Jerome Keating, The University of Texas at San Antonio

5:20 p.m. Floor Discussion

78 CC-302/303 (West)

■ Assessing Risk in the Biological and Environmental Sciences—Contributed

Section on Risk Analysis, ENAR, Section on Statistics and the Environment
Chair(s): Jyoti Rayamajhi, Eli Lilly and Company

4:05 p.m. Benchmark Dose Analysis from Multiple Data Sets: The Cumulative Risk Assessment for N-Methyl Carbamate Pesticides—◆Rhyne Woodrow Setzer, U.S. Environmental Protection Agency

4:20 p.m. Simulation of Risk of Codling Moth Establishment from Imported Apples—◆Eleanor Shannon Neeley, Brigham Young University

4:35 p.m. Optimal Designs for Toxicology Studies with Multiple Responses and Multiple Stressors—◆Edward L. Boone, Virginia Commonwealth University; David Edwards, Virginia Commonwealth University; Shuchi Jain, Virginia Commonwealth University

4:50 p.m. Updated Risk Assessment of Variant Creutzfeldt-Jakob Disease (vCJD) Risks for Recipients of Blood and Plasma-Derived Products in the United States—◆Steven Anderson, FDA; Hong Yang, FDA; Richard Forshee, FDA; Mark Walderhaug, FDA

5:05 p.m. Relationship Between Prion Disease Incubation and Oral Dosage and Incidents of Variant Creutzfeldt-Jakob Disease—◆Chu-Chih Chen, National Health Research Institutes, Taiwan; Kuen-Yuh Wu, National Taiwan University

5:20 p.m. Different Approaches to Model Averaging in Environmental Risk Assessment—◆Esben Budtz-Jørgensen, University of Copenhagen

5:35 p.m. Time-to-Event Analysis in PK/PD Modeling—◆Munni Begum, Ball State University

79 CC-117 (West)

Technology for Teaching in the Traditional and Online Classrooms—Contributed

Section on Statistical Education
Chair(s): J. McLean Sloughter, Seattle University

4:05 p.m. Frequent Deadlines in Statistics Courses: If Health Executives Learn Better When They Are Enforced, Why Won't Undergraduate Students?—◆Lawrence Fulton, Texas State University, San Marcos; Lana Ivanitskaya, Central Michigan University; Dmitry Erofeev, Central Michigan University

4:20 p.m. Self-Paced Online Introductory Statistics Course—◆Olcay Akman, Illinois State University

4:35 p.m. Teaching a Second Statistics Course for QBIC:A Special Program at Florida International University—◆Ramon Gomez, Florida International University

4:50 p.m. Differences in Student Experiences in an Undergraduate Biostatistics Course: Online vs. Hybrid. vs. Face-to-Face—◆Darryl L. Corey, Kennesaw State University; M. Louise Lawson, Kennesaw State University

5:05 p.m. Having It Both Ways:Teaching Statistics for Online or Hardcopy Note-Taking—◆Nancy Pfenning, University of Pittsburgh

5:20 p.m. Comparison of Student Outcomes in an Undergraduate Biostatistics Course: Online vs. Face-to-Face vs. Hybrid—◆M. Louise Lawson, Kennesaw State University; Darryl L. Corey, Kennesaw State University

5:35 p.m. Floor Discussion

80 CC-111/112 (West)

■ Visualizing Data Graphics—Contributed

Section on Statistical Graphics, IMS
Chair(s): Robert Krafty, University of Pittsburgh

4:05 p.m. A Foundation for Dynamic Graphical Data Analysis—◆Edward C. Chao, Data Numerica Institute, Inc.; Jianliang Jin,Annpro Analytic Technologies, Inc.

4:20 p.m. Visualizing Call Flow Through Time—◆Fei Chen,Avaya Labs;Wen-hua Ju,Avaya Labs

4:35 p.m. Visualizing Agricultural Data at the National Agricultural Statistics Service:The Current State of the Art—◆Irwin Anolik, National Agricultural Statistics Service

4:50 p.m. Visualizing Model Uncertainty with Many Parameters—◆David W. Scott, Rice University

5:05 p.m. GGally:A Plot Matrix for All Variable Types—◆Barret E. Schloerke, Iowa State University; Dianne Cook, Iowa State University; Hadley Wickham, Rice University; Heike Hofmann, Iowa State University

5:20 p.m. A Tour GUI Using gWidgets—◆Bei Huang, Iowa State University; Dianne Cook, Iowa State University

5:35 p.m. Statistical Graphics for Ranked Lists—◆Michael G. Schimek, Medical University of Graz/Danube University Krems

81 CC-116 (West)

Variable Selection—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Mu Qiao, Penn State

4:05 p.m. L1 Regularized Linear Discriminant Analysis—◆Qing Mai, University of Minnesota; Hui Zou, University of Minnesota; Ming Yuan, Georgia Institute of Technology

4:20 p.m. Generalized Forward Selection: Subset Selection in High Dimensions—◆Derick R. Peterson, University of Rochester;Alexander T. Pearson, University of Rochester

4:35 p.m. Model Identification and Regression Estimation with a Diverging Number of Predictors—◆Zhan Wang, University of Minnesota;Yuhong Yang, University of Minnesota

4:50 p.m. Model Selection for Dependent Data via the Minimum Description Length Principle—◆Li Li, University of Toronto; Radu Craiu, University of Toronto; Fang Yao, University of Toronto

5:05 p.m. Calibrated Power Model Selection—Hugh Crews, University of North Carolina Wilmington; ◆Clayton Barker, SAS Institute

5:20 p.m. The Orthogonal Matching Pursuit Algorithm on Sparse Linear Regression—◆Lie Wang, MIT;Tony Cai, University of Pennsylvania

5:35 p.m. Penalized Composite Quasi-Likelihood for Ultra High-Dimensional Variable Selection—◆Jelena Bradic, Princeton University; Jianqing Fan, Princeton University; Weiwei Wang,The University of Texas Health Science Center at Houston

82 CC-14 (East)

Methodological Advances for Environmental Modeling—Contributed

Section on Statistics and the Environment
Chair(s): Otto Mark, U.S. Fish and Wildlife Service

4:05 p.m. A Power Comparison of Generalized Additive Models and the Spatial Scan Statistic in a Case-Control Setting—◆Robin Young, Boston University; Janice Weinberg, Boston University;Veronica Vieira, Boston University; Al Ozonoff, Boston University School of Public Health; Thomas Webster, Boston University

4:20 p.m. Bayesian Empirical Orthogonal Function Method and Its Application—◆Yiping Dou,The University of British Columbia; Nhu Le, BC Cancer Agency; Jim Zidek,The University of British Columbia

4:35 p.m. Nonparametric Variogram Estimation on the Sphere—◆Chunfeng Huang, Indiana University; Haimeng Zhang, Mississippi State University; Scott Robeson, Indiana University

4:50 p.m. Dimension-Reduced Approach to Modeling of Two Interdependent Space-Time Processes—◆Jenny Brynjarsdottir, The Ohio State University; L. Mark Berliner, The Ohio State University

5:05 p.m. Semiparametric Estimation and Selection for Nonstationary Spatial Covariance Functions—◆Nan-Jung Hsu, National Tsing-Hua University; Hsin-Cheng Huang, Academia Sinica; Ya-Mei Chang, CSIRO

5:20 p.m. Space-Time Covariance Functions Under Energy-Balance Climate Models—◆Jue Wang, Texas A&M University; Jerry North, Texas A&M University; Marc Genton, Texas A&M University

5:35 p.m. Reporting Meaningful Environmental Data—◆Barry D. Nussbaum, U.S. Environmental Protection Agency

83 CC-206 (West)

Infectious Disease Modeling—Contributed

Section on Statistics in Epidemiology

Chair(s): Catherine M. Crespi, University of California, Los Angeles

4:05 p.m. Evaluation of Weight Functions Used for Robust Regression of Influenza Surveillance Mortality Data—◆Jian Rong, Boston University; Al Ozonoff, Boston University School of Public Health

4:20 p.m. On the Use of Adjusted Cross-Sectional Estimators of HIV Incidence—◆Rui Wang, Harvard School of Public Health; Stephen Lagakos, Harvard School of Public Health

4:35 p.m. Using the Trend Odds Model in Seroepidemiological Studies—◆Ana W. Capuano, The University of Iowa; Gregory C. Gray, University of Florida; Jeffrey D. Dawson, The University of Iowa; R. William Field, University of Iowa

4:50 p.m. Using Logistic Regression of Sparse Data to Predict Influenza—◆Hector Lemus, San Diego State University

5:05 p.m. Stochastic Graph Models and Their Application in Analyzing the UK 2001 Foot-and-Mouth Disease Outbreak—◆Yasaman Hosseinkashi, University of Waterloo; Shojaeddin Chenouri, University of Waterloo; Christopher G. Small, University of Waterloo

5:20 p.m. Application of a Least Trimmed Squares Robust Regression Model for Estimating Influenza-Associated Deaths by State in the United States—◆Po-Yung Cheng, CDC; William Thompson, CDC; Eric S. Weintraub, CDC; Tuyen Do, CDC; David Shay, CDC

5:35 p.m. Joint Estimation in Nonlinear State-Space Models with Applications in Epidemiology—◆Soma S. Dhavala, Texas A&M University; Jianhua Huang, Texas A&M University; Hulin Wu, University of Rochester School of Medicine and Dentistry

84 CC-205 (West)

Topics in Causal Inference—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Samsiddhi Bhattacharjee, National Cancer Institute

4:05 p.m. Comparison of the Effectiveness of Three Novel Statistical Methods for Biomarker Selection with Application to an HIV Infection Data Set—◆Bosny J. Pierre-Louis, The University of North Carolina at Chapel Hill

4:20 p.m. The Relative Performance of Collaborative Double Robust Targeted Maximum Likelihood Estimators—◆Kristin E. Porter, University of California, Berkeley; Susan Gruber, University of California, Berkeley; Jasjeet S. Sekhon, University of California, Berkeley; Mark J. Van der Laan, University of California, Berkeley

4:35 p.m. Efforts to Adjust for Confounding by Neighborhood Using Complex Survey Data—◆Babette Brumback, University of Florida; Amy Dailey, University of Florida; Zhulin He, University of Florida; Lyndia C. Brumback, University of Washington; Melvin Livingston, University of Florida

4:50 p.m. Design of an Observational Study to Evaluate the Effectiveness of IAP During Labor Against Early Onset Disease in Newborns—Donald B. Rubin, Harvard University; Stephanie J. Schrag, CDC; ◆Elizabeth R. Zell, CDC

5:05 p.m. Assessing the Causal Effect of Treatment Dosages in the Presence of Self-Selection—◆Xin Gao, University of Michigan; Michael R. Elliott, University of Michigan

5:20 p.m. Multiplicative Semiparametric Regression Model for Relative Risk with Application to Air Pollution Exposure—◆Catherine Tuglus, University of California, Berkeley; Kristin E. Porter, University of California, Berkeley; Mark J. Van der Laan, University of California, Berkeley

5:35 p.m. Effect of Hormonal Contraception on the HIV Acquisition Using Structural Models—◆Pai-Lien Chen, Family Health International

85 CC-110 (West)

✪ Combining Data from Multiple Surveys: Design and Estimation Methods—Contributed

Section on Survey Research Methods

Chair(s): Amy Ferketich, The Ohio State University

4:05 p.m. Methods for Optimizing the Overlap of Two Consecutive Surveys While Preserving First-Order Inclusion Probabilities—◆Ioana Schiopu Kratina, Statistics Canada; Jean-Marc Fillion, Statistics Canada; Lenka Mach, Statistics Canada; Philip T. Reiss, New York University

4:20 p.m. Regression-Based Data Fusion: Robust Residual Imputation—◆Chris Moriarity, National Center for Health Statistics; Fritz Scheuren, NORC

4:35 p.m. Integrating Sample Designs for Environmental Industry and Occupational Employment Surveys—◆Shail Jain Butani, Bureau of Labor Statistics; David Salvatore Piccone, Bureau of Labor Statistics; Edwin L. Robison, Bureau of Labor Statistics

4:50 p.m. More for Less? Comparing Small-Area Estimation, Spatial Microsimulation, and Mass Imputation—◆Stephen John Haslett, Massey University; Geoffrey Jones, Massey University; Alasdair Dewar Noble, Massey University; Dimitris Ballas, University of Sheffield

5:05 p.m. Statistical Disclosure Risk of Synthetic Data Sets—◆Anne-Sophie Charest, Carnegie Mellon University

5:20 p.m. An Estimation Method for Matrix Sampling—◆Takis Merkouris, Athens University of Economics and Business

5:35 p.m. Floor Discussion

86 CC-118 (West)

✪ Small-Area Estimation—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): Fotios K. Kokkotos, Trinity Partners, Inc.

4:05 p.m. Building-Block BLUPs for Aggregate-Level Small-Area Estimation for Survey Data—◆Avinash C. Singh, NORC; Pin Yuan, Human Resource and Social Development Canada

4:20 p.m. Empirical Likelihood for Small-Area Estimation—◆Sanjay Chaudhuri, National University of Singapore; Malay Ghosh, University of Florida

4:35 p.m. Robust Small-Area Estimation Using a Mixture Model—◆Julie Gershunskaya, Bureau of Labor Statistics; Parthasarathi Lahiri, University of Maryland

4:50 p.m. Small-Area Estimation for Business Surveys—◆Wesley Yung, Statistics Canada; Susana Rubin-Bleuer, Statistics Canada; Sebastien Landry, Statistics Canada

5:05 p.m. Variance Modeling in the U.S. Small Area Income and Poverty Estimates Program (SAIPE)—◆Sam Hawala, U.S. Census Bureau; Parthasarathi Lahiri, University of Maryland

5:20 p.m. Small-Area Estimation Approach to Estimating the Association Between Traffic-Generated Air Pollution and Early Childhood Respiratory Problems—◆Mine Cetinkaya, University of California, Los Angeles

5:35 p.m. Floor Discussion

87 CC-17 (East)

Semiparametric Methods and Curve Estimation—Contributed

Section on Nonparametric Statistics

Chair(s): Roland C. Deutsch, The University of North Carolina at Greensboro

4:05 p.m. A Novel Semiparametric Ratio Estimator: A Key to Predicting Long-Term Weight Loss in Obesity—◆Deborah Weissman-Miller, Dwbus & Assoc. Inc.

4:20 p.m. Modified Robust Covariance Estimator for Generalized Estimating Equations with Improved Small-Sample Properties—◆Ming Wang, Emory University; Qi Long, Emory University

4:35 p.m. Predictive Distribution Under Cox's Proportional Hazard Model—◆Yijie Liao, Southern Methodist University; Ron Butler, Southern Methodist University

4:50 p.m. Small-Area Estimation with Measurement Error Using SIMEX—◆Trijya Singh, Texas A&M University; Trijya Singh, Texas A&M University

5:05 p.m. Integral Curve Estimation: Methodology and Applications to Diffusion Tensor Imaging—◆Lyudmila Sakhanenko, Michigan State University

5:20 p.m. On the Statistic Properties of Proposed Nonparametric Estimators for Separability Restriction and Asymmetric Information Tests—◆Takaaki Aoki, State University of New York at Buffalo

5:35 p.m. Floor Discussion

88 CC-204 (West)

■ ✪ Productivity, Capability, and Tolerance Intervals—Contributed

Section on Quality and Productivity

Chair(s): Don McCormack, SAS Institute

4:05 p.m. Tolerance Intervals for One-Way Random Effects Models Based on Modified Signed Log-Likelihood Ratio—◆Gaurav Sharma, University of Maryland Baltimore County; Thomas Mathew, University of Maryland Baltimore County

4:20 p.m. A Simple Approximate Procedure for Constructing Binomial and Poisson Tolerance Intervals—◆Yanping Xia, Southeast Missouri State University; Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette

4:35 p.m. Developing New Capability Indices for the Positional Tolerance of a Multidimensional Machining Process—◆Chun-Yi Lee, National Chiayi University; Jeh-Nan Pan, National Cheng Kung University

4:50 p.m. Process Capability Analysis Chart for a Product with Bilateral Specifications—◆Jose Alberto Vargas, Universidad Nacional de Colombia; Ruben D. Guevara, Universidad Nacional de Colombia

5:05 p.m. Productivity Improvement of Three Stations and a Single Buffer Model with Continuous Materials Flow—◆Mohammad A. Quasem, Howard University

5:35 p.m. Improving Productivity Using Lean Six Sigma—◆Ayodele O. Mobolurin, Howard University; Mohammad A. Quasem, Howard University

5:35 p.m. Floor Discussion

89 CC-120 (West)

National Surveys and Policies—Contributed

Section on Survey Research Methods
Chair(s): Matt Jans, U.S. Census Bureau

4:05 p.m. Modeling Survey Errors and Rotation Group Bias in the UK Labour Force Survey—◆Ping Zong, Office for National Statistics UK; Julian Chow, Office for National Statistics UK; Denise Silva, Office for National Statistics UK; Paul Smith, Office for National Statistics UK; Gary Brown, Office for National Statistics UK

4:20 p.m. Using Point and Intervalized Data in Occupational Employment Statistics Survey Estimates—◆David Salvatore Piccone, Bureau of Labor Statistics; Teresa Elizabeth Hesley, Bureau of Labor Statistics

4:35 p.m. Determining the Appropriate Implementation of a Repeated Measures Analysis Comparing Two Periodic Estimates on Economic Survey Data—◆Philip Steel, U.S. Census Bureau; Paul Ferrara, University of Virginia; Katherine Jenny Thompson, U.S. Census Bureau

4:50 p.m. Evaluating the Effect of Dependent Sampling on the National Compensation Survey Earnings Estimates—◆Omolola Ojo, Bureau of Labor Statistics; Chester Ponikowski, Bureau of Labor Statistics

5:05 p.m. Oncology and Hemotology—◆Zuhair Ghanem, Howard University

5:20 p.m. Floor Discussion

MONDAY, AUGUST 2

Committee/Business Meetings & Other Activities

6:30 a.m.–8:00 a.m. FW-Terrace Room
Caucus for Women in Statistics Breakfast
Organizer(s): Jennifer Parker, National Center for Health Statistics

7:00 a.m.–8:30 a.m. CC-105 (West)
Section on Health Policy Statistics Executive Committee Meeting
Chair(s): Thomas Love, Case Western Reserve University

7:00 a.m.–8:30 a.m. CC-107 (West)
Section on Statistical Graphics Executive Committee Meeting
Chair(s): Simon Urbanek, AT&T Labs - Research

7:00 a.m.–8:30 a.m. CC-4 (East)
ASA Caucus of Academic Representatives Committee Meeting
Chair(s): Jim Albert, Bowling Green State University

7:00 a.m.–8:30 a.m. FW-Princess Louisa Suite
Council of Chapters International Science and Engineering Fair Meeting Breakfast
Chair(s): Theresa Utlaut, Intel Corporation

7:00 a.m.–8:30 a.m. CC-7 (East)
Section on Statistical Education Executive Committee Meeting
Chair(s): Lori Thombs, University of Missouri

7:00 a.m.–8:30 a.m. FW-Burrard Suite
SPAIG Committee Annual Meeting
Chair(s): Jai Choi, Medical College of Georgia

7:00 a.m.–8:30 a.m. CC-108 (West)
Section on Teaching of Statistics in the Health Sciences Executive Committee Meeting
Chair(s): Jodi Lapidus, Oregon Health & Science University

7:00 a.m.–8:30 a.m. CC-5 (East)
Technometrics Management Committee Business Meeting
Chair(s): William Notz, The Ohio State University

7:00 a.m.–8:30 a.m. CC-113 (West)
ASA-SIAM Book Series Editorial Board Meeting
Chair(s): Martha Aliaga, ASA; Roderick Joseph Little, University of Michigan

7:00 a.m.–9:00 a.m. CC-19/20 (East)
Social Statistics Section Executive Board Meeting
Chair(s): Sharon Stern, U.S. Census Bureau

7:00 a.m.–6:00 p.m. CC-103/104 (West)
Speaker Management Room

7:00 a.m.–10:00 p.m. CC-West Registration
Cyber Center

7:30 a.m.–9:00 a.m. FW-Cheakamus Room
Communications in Statistics Editorial Board Meeting
Organizer(s): Narayanaswamy Balakrishnan, McMaster University

7:30 a.m.–12:30 p.m. CC-106 (West)
Biopharmaceutical Section Executive Committee Meeting
Chair(s): Katherine Monti, Rho, Inc.

7:30 a.m.–6:00 p.m. CC-West Registration
ASA Membership/Special Assistance/Press Desk

7:30 a.m.–6:00 p.m. CC-West Registration
JSM Main Registration

8:00 a.m.–6:00 p.m. CC-Exhibit Hall B (West)
Career Placement Service

8:00 a.m.–6:00 p.m. CC-Exhibit Hall A (West)
Exhibitor Lounge

8:30 a.m.–10:00 a.m. FW-Princess Louisa Suite
Council of Chapters Planning Committee Meeting
Chair(s): V.A. (Sam) Samaranayake, Missouri University of Science and Technology

8:30 a.m.–10:20 a.m. CC-Ballroom C (West)
Introductory Overview Lecture: Future Directions in the Analysis of Genomic Data
Organizer(s): Huixia Wang, North Carolina State University

9:00 a.m.–10:00 a.m. FW-Douglas Boardroom
Mu Sigma Rho Executive Committee
Organizer(s): Christine Franklin, The University of Georgia

9:00 a.m.–5:30 p.m. CC-West Registration
ASA Marketplace

9:00 a.m.–6:00 p.m. CC-Exhibit Hall A (West)
EXPO 2010

9:00 a.m.–6:00 p.m. CC-Exhibit Hall A (West)
American Statistical Association Booth #401

9:30 a.m.–11:00 a.m. CC-7 (East)
Cavell Brownie Scholars JSM Mentoring Program (closed)
Chair(s): Marcia Gumpertz, North Carolina State University

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

10:00 a.m.–11:30 a.m. CC-5 (East)
ASA Caucus of Academic Representatives Meeting
Chair(s): Jim Albert, Bowling Green State University

10:00 a.m.–12:00 p.m. FW-Princess Louisa Suite
Council of Chapters Governing Board Executive Committee Meeting
Chair(s): V.A. (Sam) Samaranayake, Missouri University of Science and Technology

10:00 a.m.–12:00 p.m. FW-Burrard Suite
Council of Chapters Governing Board Meeting Status Committee Meeting
Chair(s): David A. Marker, Westat

10:30 a.m.–12:30 p.m. CC-108 (West)
Advisory Committee on Continuing Education (ACCE) Business Meeting
Chair(s): Ronald E. McRoberts, U.S. Forest Service

12:00 p.m. –1:30 p.m. FW-Sechelt Room
Annals of Statistics Associate Editors Annual Luncheon (closed)
Organizer(s): Tony Cai, University of Pennsylvania

12:00 p.m.–1:30 p.m. FW-Cheakamus Room
Interface Foundation of North America Board Meeting
Organizer(s): Edward J. Wegman, George Mason University

12:30 p.m.–1:50 p.m. CC-5 (East)
University of Connecticut/ASA/Pfizer Filming of Distinguished Statisticians (closed)
Organizer(s): Nitis Mukhopadhyay, University of Connecticut-Storrs

12:30 p.m.–2:00 p.m. CC-105 (West)
Section on Statistical Computing Executive Committee Lunch
Chair(s): Luke Tierney, The University of Iowa

12:30 p.m.–2:00 p.m. FW-Douglas Boardroom
International Chinese Statistical Association (ICSA) Constitution Committee Meeting
Organizer(s): Ming-Hui Chen, University of Connecticut

12:30 p.m.–2:00 p.m. FW-Terrace Room
JSM 2011 Program Committee Meeting
Chair(s): David Judkins, Westat

12:30 p.m.–2:00 p.m. CC-7 (East)
CHANCE Editors Meeting
Chair(s): Michael Larsen, The George Washington University

12:30 p.m.–2:30 p.m. CC-113 (West)
Journal of Computational and Graphical Statistics Editor's Lunch
Chair(s): Richard A. Levine, San Diego State University

2:00 p.m.–3:30 p.m. FW-Burrard Suite
Journal of Educational and Behavioral Statistics
Chair(s): David Rindskopf, CUNY Graduate Center

2:00 p.m.–4:00 p.m. CC-4 (East)
ASA Finance Committee Meeting
Chair(s): J. Keith Ord, Georgetown University

3:30 p.m.–5:00 p.m. CC-107 (West)
Committee on Applied Statisticians Social Mixer
Chair(s): Jennifer Gauvin, GlaxoSmithKline; Comm. on Applied Statisticians, ASA

4:00 p.m.–5:30 p.m. CC-105 (West)
Section on Statistics and the Environment Executive Committee Meeting
Chair(s): Dale Zimmerman, The University of Iowa

4:00 p.m.–5:30 p.m. CC-106 (West)
2010 Education Workgroup Business Meeting
Chair(s): Jessica Utts, University of California, Irvine

4:00 p.m.–5:30 p.m. FW-Waterfront Ballroom A
CAUSE Business Meeting
Organizer(s): Dennis Pearl, The Ohio State University

4:30 p.m.–6:00 p.m. CC-7 (East)
Biometrics Editorial Board
Organizer(s): Marie Davidian, North Carolina State University

4:30 p.m.–6:00 p.m. CC-108 (West)
Section on Nonparametric Statistics Executive Committee Meeting (closed)
Chair(s): Jane-Ling Wang, University of California, Davis

5:00 p.m.–6:00 p.m. CC-111/112 (West)
ASA Special Interest Group for Medical Devices and Diagnostics
Chair(s): Greg Campbell, FDA

5:00 p.m.–6:30 p.m. CC-122 (West)
Section on Statistics in Marketing Business Meeting
Chair(s): Oded Netzer, Columbia University

5:00 p.m.–6:30 p.m. CC-118 (West)
Section on Statistics in Sports Business Meeting
Chair(s): Andrew Swift, University of Nebraska-Omaha

5:00 p.m.–6:30 p.m. FW-Sechelt Room
Journal of Quality Technology Editorial Review Board Meeting
Organizer(s): Dan Apley, Northwestern University

5:00 p.m.–6:30 p.m. CC-110 (West)
Section for Statistical Programmers and Analysts Business Meeting
Chair(s): Jennifer Borkowsky, SSPA

5:00 p.m.–6:30 p.m. CC-5 (East)
Section on Quality and Productivity Strategic Planning Meeting
Chair(s): Mark Bailey, SAS Institute

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

5:00 p.m.–7:00 p.m. FW-MacKenzie II
SSC Reception
Organizer(s): Don McLeish, Statistical Society of Canada

5:00 p.m.–7:00 p.m. FW-Malaspina Room
NISS/SAMSI Reception
Organizer(s): Alan Karr, National Institute of Statistical Sciences

5:00 p.m.–7:00 p.m. FW-Cheakamus Room
RTI International Reception
Organizer(s): Tonda McCullers, RTI International

5:00 p.m.–8:00 p.m. CC-109 (West)
Texas A&M University Department of Statistics, Aggie Reunion
Organizer(s): Simon Sheather, Texas A&M University

5:30 p.m.–7:00 p.m. CC-113 (West)
Section on Statistics in Epidemiology Executive Committee Meeting (closed)
Chair(s): Ron Brookmeyer, University of California, Los Angeles

5:30 p.m.–7:00 p.m. CC-209 (West)
The University of North Carolina at Chapel Hill Departments of Biostatistics Joint with Statistics and Operations Research
Organizer(s): Michael Kosorok, The University of North Carolina at Chapel Hill

5:30 p.m.–7:30 p.m. CC-120 (West)
Stata Social (closed)
Organizer(s): Sarah Marrs, StataCorp LP

5:30 p.m.–7:00 p.m. FW-Waterfront Ballroom B
IMS Member Social
Organizer(s): Elyse Gustafson, Institute of Mathematical Statistics

5:30 p.m.–7:00 p.m. CC-117 (West)
Biometrics Section Mixer and Business Meeting
Chair(s): Barry I. Graubard, National Cancer Institute

5:30 p.m.–7:00 p.m. CC-4 (East)
University of Georgia Reception for Alumni and Friends
Organizer(s): John Stufken, The University of Georgia

5:30 p.m.–7:00 p.m. CC-208 (West)
Section on Teaching of Statistics in the Health Sciences Business Meeting and Mixer
Chair(s): Jodi Lapidus, Oregon Health & Science University

5:30 p.m.–7:30 p.m. FW-Burrard Suite
Social Statistics Section Business Meeting
Chair(s): Sharon Stern, U.S. Census Bureau

5:30 p.m.–8:00 p.m. Off Property
Section on Health Policy Statistics Business Meeting and Mixer (offsite)
Chair(s): Thomas Love, Case Western Reserve University

6:00 p.m.–7:00 p.m. FW-Royal Suite
ASA President's Invited Speaker Reception (by invitation only)
Chair(s): Sastry Pantula, North Carolina State University

6:00 p.m.–7:00 p.m. CC-2&3 (East)
Russian and Former Soviet Union Statisticians Mixer
Organizer(s): Stan Lipovetsky, GfK Custom Research North America

6:00 p.m.–7:00 p.m. CC-8 (East)
Korean Statisticians in America Social Meeting
Organizer(s): Jae-Kwang Kim, Iowa State University

6:00 p.m.–7:30 p.m. CC-210 (West)
Section on Statistics and the Environment Business Meeting and Mixer
Chair(s): Dale Zimmerman, The University of Iowa

6:00 p.m.–7:30 p.m. FW-Princess Louisa Suite
University of Michigan Alumni Reception
Organizer(s): Trivellore Raghunathan, University of Michigan; Vijay Nair, University of Michigan

6:00 p.m.–7:30 p.m. CC-203 (West)
Christian Statisticians' Informal Discussion Group
Organizer(s): James Ward, Sand Point Statistics Group

6:00 p.m.–8:00 p.m. CC-121 (West)
Section on Statistics in Defense and National Security and Section on Risk Analysis Joint Mixer
Chair(s): Lara Schmidt, ASA; Lara Schmidt, RAND Corporation

6:00 p.m.–8:00 p.m. CC-107 (West)
International Indian Statistical Association Mixer and General Body Meeting
Organizer(s): Sneh Gulati, Florida International University

6:00 p.m.–8:00 p.m. FW-Waterfront Ballroom C
JSM Student Mixer
Chair(s): Ming-Xiu Hu, Millennium Pharmaceuticals, Inc.
Sponsored by Pfizer Inc.

6:00 p.m.–9:00 p.m. FW-Terrace Room
Eli Lilly Faculty Reception
Organizer(s): Todd Sanger, Eli Lilly & Co.

6:30 p.m.–7:30 p.m. FW-Waterfront Ballroom A
JSM Longtime Member Mixer
Chair(s): Ming-Xiu Hu, Millennium Pharmaceuticals, Inc.
Sponsored by RTI International

6:30 p.m.–8:00 p.m. CC-106 (West)
Committee on Professional Ethics Subcommittee on Ethical Dilemma Scenarios
Chair(s): Donald Bentley, Pomona College

6:30 p.m.–8:00 p.m. CC-114/115 (West)
Chapman & Hall/CRC Press/Taylor & Francis Author Reception
Organizer(s): Nadja English, CRC Press/Taylor & Francis

7:30 p.m.–10:00 p.m. CC-19/20 (East)
Section on Statistical Computing and Section on Statistical Graphics Joint Mixer
Chair(s): Luke Tierney, The University of Iowa

Continuing Education (Fee Events)

CE_11C
Adaptive Analysis of Data: Tests of Significance and Confidence Intervals
8:00 a.m.–12:00 p.m. CC-8 (East)
Instructor(s): Tom O'Gorman, Northern Illinois University

CE_12C
Fundamental Statistics Concepts in Presenting Data: Principles for Constructing Better Graphics
8:30 a.m.–5:00 p.m. CC-2&3 (East)
Instructor(s): Rafe Donahue, Biomimetic Therapeutics

CE_13C
An Introduction to R for SAS, SPSS, and Stata Users
8:30 a.m.–5:00 p.m. CC-1 (East)
Section for Statistical Programmers and Analysts
Instructor(s): Robert A. Muenchen, University of Tennessee; Ralph G. O'Brien, Case Western Reserve University

CE_14C
Analysis of Ordinal Categorical Data
8:30 a.m.–5:00 p.m. CC-11(East)
Instructor(s): Alan Agresti, University of Florida; Bhramar Mukherjee, University of Michigan

CE_15C
Bayesian Inference for Surveys
8:30 a.m.–5:00 p.m. CC-12 (East)
Instructor(s): Roderick Joseph Little, University of Michigan; Trivellore Raghunathan, University of Michigan

CE_16C
Meta-Analysis: Statistical Issues for Combining the Results of Multiple Studies
1:00 p.m.–5:00 p.m. CC-8 (East)
Instructor(s): Ingram Olkin, Stanford University

A.M. Roundtable Discussions 7:00 a.m.–8:15 a.m.

90 CC-Ballroom D (West)
Section for Statistical Programmers and Analysts (fee event)
Section for Statistical Programmers and Analysts
Organizer(s): Chengying (Nancy) Wu, sanofi-aventis
ML01 Interim Analysis: Does It Really Save Time?—◆Jin-Yi Chen, Merck Research Laboratories

91 CC-Ballroom D (West)
Section on Government Statistics (fee event)
Section on Government Statistics
Organizer(s): Iris Shimizu, National Center for Health Statistics
ML02 Sample Weights in Survey Data—◆Katie Genadek, University of Minnesota

92 CC-Ballroom D (West)
Section on Physical and Engineering Sciences (fee event)
Section on Physical and Engineering Sciences
Organizer(s): Kary Myers, Los Alamos National Laboratory
ML03 Innovations in Spatiotemporal Analysis for Renewable Energy Research—◆Alexander Kolovos, SAS Institute

93 CC-Ballroom D (West)
Section on Quality and Productivity (fee event)
Section on Quality and Productivity
Organizer(s): Theresa Utlaut, Intel Corporation
ML04 Designing Experiments for Biopharmaceutical Process Development—◆Julia O'Neill, Merck & Co., Inc.

94 CC-Ballroom D (West)
Section on Statistical Computing (fee event)
Section on Statistical Computing
Organizer(s): David J. Poole, AT&T Labs
ML05 Behind the Scenes at the Netflix Prize—◆Robert Bell, AT&T Labs - Research

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

95 CC-Ballroom D (West)

Section on Statistical Consulting (fee event)

Section on Statistical Consulting

Organizer(s): Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center

ML06 Cross-Pharma Statistical Innovations—Herbert Thijs, I-Biostat; ◆Herbert Thijs, I-Biostat

96 CC-Ballroom D (West)

Section on Statistical Education (fee event)

Section on Statistical Education

Organizer(s): Daniel Theodore Kaplan, Macalester College

ML07 Readings for Intro Stat Courses—◆Veda Abu-Bakare, Langara College

97 CC-Ballroom D (West)

Section on Survey Research Methods (fee event)

Section on Survey Research Methods

Organizer(s): Paul Beatty, National Center for Health Statistics

ML08 Cell Phone Surveying in the United States: An Update from a 2010 AAPOR Task Force—◆Paul J. Lavrakas, Independent Contractor

98 CC-Ballroom D (West)

Section on Teaching of Statistics in the Health Sciences (fee event)

Section on Teaching of Statistics in the Health Sciences

Organizer(s): Nicole Carlson, University of Colorado, Denver

ML09 Incorporating Lean Six Sigma into an MBA Statistics Course—Darcy Hille, Merck & Co., Inc.; ◆Paulette Ceesay, Merck & Co., Inc.

Special Presentation 8:30 a.m.–10:20 a.m.

99 CC-Ballroom C (West)

Introductory Overview Lecture: Future Directions in the Analysis of Genomic Data—Other

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association, Biometrics Section

Organizer(s): Huixia Wang, North Carolina State University

Chair(s): Huixia Wang, North Carolina State University

8:35 a.m. Future Directions in the Analysis of Genomic Data—◆Terence (Terry) Paul Speed, Walter & Eliza Hall Institute of Medical Research; ◆Nancy Zhang, Stanford University

10:00 a.m. Floor Discussion

Invited Sessions 8:30 a.m.–10:20 a.m.

100 CC-211 (West)

✪ A Key to Innovation in Genetic Epidemiology—Invited

Section on Statistics in Epidemiology, Biometrics Section, International Chinese Statistical Association, WNAR

Organizer(s): Iryna Lobach, New York University School of Medicine

Chair(s): Iryna Lobach, New York University School of Medicine

8:35 a.m. Risk Predictions from Genomewide Association Data—◆Hongyu Zhao, Yale University; Jia Kang, Yale University; Ruiyan Luo, Yale University; Judy Cho, Yale University

9:00 a.m. Finding Rare Variants Affecting Disease Risk—◆Kathryn Roeder, Carnegie Mellon University

9:25 a.m. Association Analysis of Untyped SNPs: Maximum Likelihood and Imputation Methods—◆Danyu Lin, The University of North Carolina at Chapel Hill

9:50 a.m. Controlling Confounding in (Genetic) Case-Control Studies Using the Stratification Score—◆Glen Satten, CDC; Andrew Allen, Duke University

10:15 a.m. Floor Discussion

PEARSON STATISTICS

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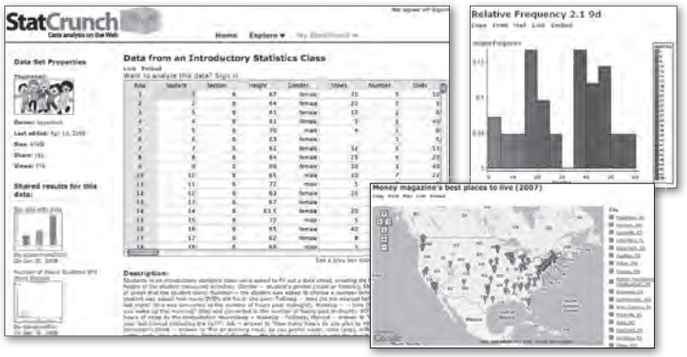

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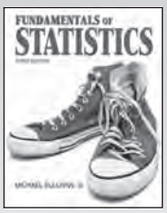

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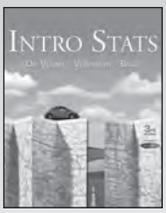

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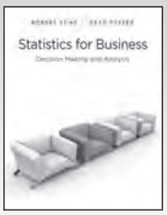

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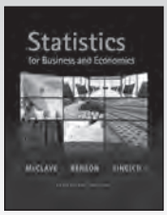

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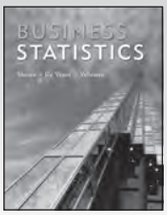

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PEARSON

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

101 CC-18 (East)

✪ Models for Count Time Series—Invited

SSC, IMS

Organizer(s): Harry Joe, The University of British Columbia
Chair(s): Harry Joe, The University of British Columbia

8:35 a.m. A General Numerical Method for Probability Mass Functions in Count Data Time Series—◆Rong Zhu, McMaster University; Harry Joe, The University of British Columbia

9:05 a.m. Statistical Models and Estimation Methods for Ordinal Longitudinal Data—◆Claudia Czado, Technische Universitaet Muenchen; Claudia Czado, Technische Universitaet Muenchen

9:35 a.m. A Simple Integer-Valued AR(p) Process—◆Keith Freeland, University of Waterloo

10:05 a.m. Floor Discussion

102 CC-109 (West)

Advances in the Theory and Methodology of Spatial Point Processes—Invited

Section on Statistics and the Environment, IMS, Section on Statistics in Defense and National Security

Organizer(s): Jun Zhu, Colorado State University
Chair(s): Jun Zhu, Colorado State University

8:35 a.m. Modeling and Inference for Interaction Processes for Unions of Discs—◆Jesper Møller, Aalborg University

9:00 a.m. A Weighted Estimating Equation Approach for Inhomogeneous Spatial Point Processes—◆Yongtao Guan, Yale University

9:25 a.m. Optimal Voronoi Covers, with an Application to Environmental Sensing—◆Christopher D. Barr, Harvard University

9:50 a.m. Testing for Possible Climate Change–Caused Shifts in Forest Fire Ignitions—Charmaine Dean, Simon Fraser University; ◆Douglas Woolford, Wilfrid Laurier University; Jiguo Cao, Simon Fraser University; David Martell, University of Toronto

10:15 a.m. Floor Discussion

103 CC-17 (East)

■ ✪ Design and Analysis of Computer Experiments—Invited

Section on Physical and Engineering Sciences, IMS, International Chinese Statistical Association, Health Policy Statistics Section, Section on Quality and Productivity

Organizer(s): Boxin Tang, Simon Fraser University
Chair(s): Boxin Tang, Simon Fraser University

8:35 a.m. Analysis of Computer Experiments with Functional Response—◆Ying Hung, Rutgers University; Roshan Vengazhiyil Joseph, Georgia Institute of Technology

9:00 a.m. Computer Experiments with Both Qualitative and Quantitative Inputs—◆William Notz, The Ohio State University; Gang Han, Moffitt Cancer Center & Research Institute; Thomas J. Santner, The Ohio State University

9:25 a.m. Projection Array–Based Designs for Computer Experiments—◆Jason Loeppky, The University of British Columbia; Leslie Moore, Los Alamos National Laboratory; Brian Williams, Los Alamos National Laboratory

9:50 a.m. Constructing Optimal Space-Filling Designs with Large Run Sizes—◆Chunfang Devon Lin, Queen's University

10:15 a.m. Floor Discussion

104 CC-217 (West)

■ ✪ Why I Took the Red Pill: Four Consulting Statisticians Discuss Making a Difference in the Real World—Invited

Section on Statistical Consulting, Committee on Career Development, Section on Physical and Engineering Sciences, Section on Quality and Productivity, Statistical Programmers and Analysts, Committee on Applied Statisticians

Organizer(s): Doug Zahn, Zahn & Associates
Chair(s): Lynne Hare, Independent Consultant

8:35 a.m. Learning to Fly Without a Net: Inferring Legal Causation—◆Herbert Weisberg, Correlation Research, Inc.

9:00 a.m. Are Statisticians Really That Ineffective? Overcoming Challenges in Statistical Communication—◆Erin Tanenbaum, The Nielsen Company

9:25 a.m. Making a Difference with Software for Design and Analysis of Experiments—◆Bradley Jones, SAS Institute

9:50 a.m. Making a Difference by Applying Interpersonal Skills and Statistical Thinking to Consulting Practice—◆Doug Zahn, Zahn & Associates

10:15 a.m. Floor Discussion

105 CC-301 (West)

■ ✪ Statistics: The Secret Weapon of Successful Web Giants—Invited

Section on Statistics and Marketing, International Chinese Statistical Association, IMS
Organizer(s): Marianna Dizik, Google
Chair(s): Tim Hesterberg, Google

8:35 a.m. Optimizing CRM Using Advanced Classifiers—◆Marianna Dizik, Google; Choongsoon Bae, Google; Adam Ghobarah, Google; Tony Fagan, Google; Jim Koehler, Google

9:05 a.m. Randomized Experiments for Measuring Display Advertising Effectiveness—◆Taylan Yildiz, Google; Nicholas Remy, Google

9:35 a.m. Behind the Scenes at Bing—◆Jan Pedersen, Microsoft Corporation

10:05 a.m. Floor Discussion

106 CC-13 (East)

■ ✪ Semiparametric Methods—Invited

International Association for Statistical Computing, IMS, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statistical Computing, WNAR
Organizer(s): Stephen Portnoy, University of Illinois
Chair(s): Stephen Portnoy, University of Illinois

8:35 a.m. Global Regularization Under Constraints—◆Patrick Laurie Davies, University of Duisburg-Essen

9:05 a.m. Robust Principal Component Analysis?—◆Emmanuel Candes, Stanford University; Xiaodong Li, Stanford University; Yi Ma, Microsoft Research Asia; John Wright, Microsoft Research Asia

9:35 a.m. Additive Models for Quantile Regression: Selection and Postselection Inference—◆Roger Koenker, University of Illinois

10:05 a.m. Floor Discussion

107 CC-120 (West)

■ ✪ Clinical Trials and Informative Decisionmaking—Invited

Committee on Applied Statisticians, Biopharmaceutical Section
Organizer(s): Pingfu Fu, Case Western Reserve University
Chair(s): Mark Schluchter, Case Western Reserve University

8:35 a.m. Decisionmaking in Post Clinical Trials—◆Heping Zhang, Yale University

9:05 a.m. Simpson's Paradox: Aggregating and Partitioning Populations in Health Care Disparities of Lung Cancer Patients—◆Pingfu Fu, Case Western Reserve University; Mark Schluchter, Case Western Reserve University; Rom Leidner, Case Western Reserve University; Balazs Halmos, Columbia University Medical Center

9:35 a.m. Bayesian Decision Analysis for Diagnostic Procedures—◆Ying Lu, Stanford University; John Kornak, University of California, San Francisco

10:05 a.m. Floor Discussion

108 CC-210 (West)

■ ✪ Multiphase Designs in Epidemiology—Invited

WNAR, Biometrics Section, Section on Statistics and the Environment
Organizer(s): Scott M. Bartell, University of California, Irvine
Chair(s): Scott M. Bartell, University of California, Irvine

8:35 a.m. Two-Phase Sampling and Countermatching: A Comparison—◆Bryan Langholz, University of Southern California

9:05 a.m. Two-Phase Design and Genetic Epidemiology: New Developments—◆Jinbo Chen, University of Pennsylvania; Dongyu Lin, University of Pennsylvania

9:35 a.m. A Multiphase Design Approach for Dealing with Participation Bias—◆Sebastien Haneuse, Group Health Research Institute

10:05 a.m. Floor Discussion

Invited Panels 8:30 a.m.–10:20 a.m.

109 CC-306 (West)

■ ✪ Can You Maintain Confidentiality and Have Useful Data at the Same Time?—Invited

Social Statistics Section, *CHANCE*, Committee on Professional Ethics, International Chinese Statistical Association, Section on Government Statistics, Health Policy Statistics Section, Section on Survey Research Methods
Organizer(s): Edward Spar, Council of Professional Associations on Federal Statistics
Chair(s): Edward Spar, Council of Professional Associations on Federal Statistics

Panelists: ◆Michael Link, The Nielsen Company
◆Jennifer Madans, National Center for Health Statistics
◆Elaine Murakami, Federal Highway Administration
◆Marilyn Seastrom, National Center for Education Statistics
◆John Thompson, NORC

10:15 a.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

110 CC-118 (West)

✪ Risk Analysis in a Multivariate World—Invited

Section on Risk Analysis, IMS
Organizer(s): Edward L. Boone, Virginia Commonwealth University
Chair(s): Edward L. Boone, Virginia Commonwealth University

Panelists: ◆Xunguo Lin, CSIRO
◆Simon Christopher Barry, CSIRO
◆Vijay Satyal, Oregon Department of Energy

10:15 a.m. Floor Discussion

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

111 CC-209 (West)

■ ✪ New Directions in Marginal Inferences for Complex Problems—Topic-Contributed

ENAR, Health Policy Statistics Section
Organizer(s): Maiying Kong, University of Louisville
Chair(s): Dongfeng Wu, University of Louisville

8:35 a.m. Inference for Clustered Data with Potentially Informative Cluster Size: An Overview—◆Somnath Datta, University of Louisville; Jaakko Nevalainen, University of Turku; Hannu Oja, University of Tampere

8:55 a.m. Modeling Batched Gaussian Longitudinal Data Subject to Informative Dropout—◆Paul S. Albert, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Joanna H. Shih, National Cancer Institute

9:15 a.m. Handling Missingness and Informative Cluster Sizes When Modeling Prevalence and Force of Infection—◆Marc Aerts, Hasselt University; Christel Faes, I-BioStat; Niel Hens, Hasselt University; Geert Molenberghs, I-BioStat

9:35 a.m. Multiple Imputation for Missing Values Through Conditional Semiparametric Odds Ratio Models—◆Hua Yun Chen, University of Illinois at Chicago; Hui Xie, University of Illinois at Chicago

9:55 a.m. Floor Discussion

112 CC-16 (East)

✪ Spectral Methods for High-Dimensional Data—Topic-Contributed

Section on Statistical Learning and Data Mining
Organizer(s): Hernando Ombao, Brown University
Chair(s): Yoonkyung Lee, The Ohio State University

8:35 a.m. Multicategory Composite Least Squares Classifiers—◆Seo Young Park, The University of North Carolina at Chapel Hill; Yufeng Liu, The University of North Carolina at Chapel Hill

8:55 a.m. Two-Way Gaussian Mixture Models for High-Dimensional Classification—◆Mu Qiao, Penn State; Jia Li, Penn State

9:15 a.m. Joint Estimation of Multiple Graphical Models—◆Jian Guo, University of Michigan; Elizaveta Levina, University of Michigan; George Michailidis, University of Michigan; Ji Zhu, University of Michigan

9:35 a.m. Dynamic Logistic Regression and Dynamic Model Averaging for Binary Classification—◆Tyler McCormick, Columbia University; Adrian E. Raftery, University of Washington; David Madigan, Columbia University; Randall Burd, Children's National Medical Center

9:55 a.m. Large-Margin, Single-Path Hierarchical Classification with a General Loss—◆Lingzhou Xue, University of Minnesota; Xiaotong Shen, University of Minnesota

10:15 a.m. Floor Discussion

113 CC-213 (West)

■ Latest Discoveries in Statistical Methods of Evaluating Surrogate Endpoints in Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR
Organizer(s): Qian Shi, Mayo Clinic
Chair(s): Qian Shi, Mayo Clinic

8:35 a.m. Surrogate Endpoint: New Statistical Definition and Evaluation—◆Yongming Qu, Eli Lilly and Company

8:55 a.m. Meta-Analytic Approach to the Validation of Surrogate Endpoints: The Past Decade—◆Tomasz Burzykowski, Hasselt University

9:15 a.m. Validating Surrogate Endpoints from an Information Theory Perspective—◆Ariel Alonso Abad, Interuniversity Institute for Biostatistics and Statistical Bioinformatics

9:35 a.m. The Innovative Evaluation Schema of Validating Putative Surrogate Endpoints—◆Marissa Nichole Lassere, St George Hospital and University of New South Wales

9:55 a.m. Disc: Kathryn Chaloner, The University of Iowa

10:15 a.m. Floor Discussion

114 CC-205 (West)

David P. Byar Young Investigator Award, Session 1/3—Topic-Contributed

Biometrics Section
Organizer(s): Hormuzd A. Katki, National Cancer Institute
Chair(s): Lehana Thabane, McMaster University

8:35 a.m. Bridge Estimation: Estimator Hybridization for Efficiency and Robustness—◆Russell T. Shinohara, Johns Hopkins Bloomberg School of Public Health; Constantine Frangakis, Johns Hopkins Bloomberg School of Public Health

8:55 a.m. Joint Analysis of Survival Time and Longitudinal Categorical Outcomes—◆Jaeun Choi, The University of North Carolina at Chapel Hill; Jianwen Cai, The University of North Carolina at Chapel Hill; Donglin Zeng, The University of North Carolina at Chapel Hill

9:15 a.m. Power Under Local Alternatives for Generalized Estimating Equations—◆Zhigang Li, Columbia University

9:35 a.m. Semiparametric Transformation Models for Multiple Biomarkers in ROC Analysis—◆Eunhee Kim, Brown University; Donglin Zeng, The University of North Carolina at Chapel Hill

9:55 a.m. Estimating Isoforms Abundance from Paired-End mRNA Sequencing Data—◆Edoardo M. Airoldi, Harvard University

10:15 a.m. Floor Discussion

115 CC-215 (West)

■ Development of Combinations of Molecularly Targeted Agents in Oncology—Topic-Contributed

Biopharmaceutical Section
Organizer(s): William Leonard Mietlowski, Novartis Oncology
Chair(s): William Leonard Mietlowski, Novartis Oncology

8:35 a.m. Combining Molecularly Targeted Agents in Cancer Therapy—◆Eunice Kwak, Massachusetts General Hospital Cancer Center

8:55 a.m. Statistical Issues in Combining Molecularly Targeted Agents—◆Werner Vach, Institute of Medical Biometry and Medical Informatics; Rene dePont Christensen, University of Southern Denmark; Oke Gerke, Odense University Hospital

9:15 a.m. Adaptive Factorial Designs for Combination Therapy in Oncology—◆Donald Arthur Berry, MD Anderson Cancer Center

9:35 a.m. Integrated Computational and Genomic Approaches to Pathway Discovery in Cancer—◆John Quackenbush, Dana-Farber Cancer Institute

9:55 a.m. Disc: Guoxing Soon, FDA

10:15 a.m. Floor Discussion

116 CC-218/219 (West)

■ ✪ New Approaches to Estimating the Number of Farms in the United States—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Linda J. Young, University of Florida
Chair(s): Scot Rumburg, National Agricultural Statistics Service

8:35 a.m. Challenges in Estimating Farm Numbers in the United States—◆Pam Arroway, North Carolina State University

8:55 a.m. Using a Dual Frame to Investigate Classification Error—◆Denise Alexandra Abreu, National Agricultural Statistics Service; Andrea C. Lamas, National Agricultural Statistics Service; Kenneth K. Lopiano, University of Florida; Pam Arroway, North Carolina State University; Linda J. Young, University of Florida

9:15 a.m. Using Auxillary Information to Adjust the June Area Survey Indication of Farm Numbers—◆Kenneth K. Lopiano, University of Florida; Linda J. Young, University of Florida

9:35 a.m. A New Undercoverage Adjustment for the Census of Agriculture—◆Andrea C. Lamas, National Agricultural Statistics Service; Denise Alexandra Abreu, National Agricultural Statistics Service; Kenneth K. Lopiano, University of Florida; Pam Arroway, North Carolina State University; Linda J. Young, University of Florida

9:55 a.m. Disc: Bill Iwig, National Agricultural Statistics Service

10:15 a.m. Floor Discussion

117 CC-202 (West)

■ Multiregional Drug Development: Asking the Right Questions and Getting the Right Answers—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Carmen Mak, Merck Research Laboratories
Chair(s): Tristan Massie, FDA

8:35 a.m. How to Define Regions in Multiregional Clinical Trials—◆Qi Zhang, Eli Lilly and Company; Yoko Tanaka, Eli Lilly and Company

8:55 a.m. Multinational Clinical Trials: A Perspective from Latin America—◆Carolina Cernadas, Schering Plough Argentina

9:15 a.m. Evaluation of Multiregional Clinical Trials: Statistical and Other Issues in Each Development Stage—◆Yuki Ando, Pharmaceuticals and Medical Devices Agency

9:35 a.m. Global Drug Development in a Rapidly Changing World, with Examples from HCV/HIV Trials—◆Regis Vilchez, Merck Research Laboratories; Carmen Mak, Merck Research Laboratories

9:55 a.m. Globalization of Biostatistics: The Development Treatments and Preventative Products for Infectious Diseases Including Applications in H1N1, Travelers Diarrhea, and/or Malaria—◆Tammy Massie, FDA/CBER

10:15 a.m. Floor Discussion

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118 CC-111/112 (West)

■ Statistical Methods for Multivariate Spatial and Spatial-Temporal Processes—Topic-Contributed

Section on Statistics and the Environment, Section on Statistics in Defense and National Security

Organizer(s): Mikyoung Jun, Texas A&M University
Chair(s): Huiyan Sang, Texas A&M University

8:35 a.m. Matern Cross-Covariance Functions for Multivariate Random Fields—◆Tilmann Gneiting, Heidelberg University; William Kleiber, University of Washington; Martin Schlather, University of Goettingen

8:55 a.m. Cross-Covariance Functions for Multivariate Random Fields Based on Latent Dimensions—◆Marc Genton, Texas A&M University; Tatiyana Apanasovich, Thomas Jefferson University

9:15 a.m. Nonparametric Cross Covariogram for Multivariate Geostatistics—◆Hao Zhang, Purdue University

9:35 a.m. Disc: Mikyoung Jun, Texas A&M University

9:55 a.m. Floor Discussion

119 CC-10 (East)

Statistical Literacy 2010—Topic-Contributed

Section on Statistical Education, Section on Teaching of Statistics in the Health Sciences

Organizer(s): Milo Schield, Augsburg College
Chair(s): Milo Schield, Augsburg College

8:35 a.m. Statistical Literacy: A Short Course—◆Gerald J. Hahn, GE Global Research (Retired); Necip Doganaksoy, GE Global Research; Ricki Lewis, Author and geneticist; Jane E. Oppenlander, Union Graduate College; Josef Schmee, Union College (Retired)

8:55 a.m. Statistical Literacy for Managers: Analyzing Time Series Data—◆Anders Wallgren, Örebro University/Statistics Sweden

9:15 a.m. The Undetectable Difference: An Experimental Look at the 'Problem' of *p*-Values—◆William M. Goodman, University of Ontario Institute of Technology

9:35 a.m. Teaching Statistical Literacy as a Quantitative Rhetoric Course—◆John S. Schmit, Augsburg College

9:55 a.m. Probability in Decline—◆Dean Michael Brooks, Ekaros Analytical Inc.

10:15 a.m. Floor Discussion

120 CC-110 (West)

■ Recent Development in Functional and Longitudinal Data Analysis—Topic-Contributed

IMS, Section on Nonparametric Statistics

Organizer(s): Lijian Yang, Michigan State University
Chair(s): Lijian Yang, Michigan State University

8:35 a.m. Linear Prediction in Functional Data Analysis—◆Tailen Hsing, University of Michigan; Hyejin Shin, Auburn University

8:55 a.m. Generalized Partially Linear Mixed Effects Models Incorporating Mismeasured Covariates—◆Hua Liang, University of Rochester

9:15 a.m. Functional Additive Models—◆Fang Yao, University of Toronto; Hans-Georg Mueller, University of California, Davis

9:35 a.m. A Simultaneous Confidence Band for Sparse Longitudinal Regression—◆Shujie Ma, Michigan State University; Lijian Yang, Michigan State University; Raymond Carroll, Texas A&M University

9:55 a.m. Efficient Estimation and Model Selection for the Marginal Generalized Additive Model for Correlated Data—◆Lan Xue, Oregon State University; Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign; Jianhui Zhou, University of Virginia

10:15 a.m. Floor Discussion

121 CC-114/115 (West)

■ ✪ Bayesian Approaches to Molecular Evolution—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section

Organizer(s): Jennifer Aileen Tom, University of California, Los Angeles
Chair(s): Marc Suchard, University of California, Los Angeles

8:35 a.m. A Nonparametric Wavelet-Based Approach to Modeling the Genetic Diversity of Influenza A Through Time—◆Jennifer Aileen Tom, University of California, Los Angeles; Marc Suchard, University of California, Los Angeles; Janet Suzanne Sinsheimer, University of

California, Los Angeles

8:55 a.m. Approximate Bayesian Inference of Bacterial Population Trees with Next-Generation Sequencing Data—◆Alexander V.Alekseyenko, New York University; Marc Suchard, University of California, Los Angeles

9:15 a.m. Making Phylogenetic Inference Robust to Presence of Convergent Evolution—◆Vladimir Minin, University of Washington

9:35 a.m. Discriminating Between Microbial Populations—◆Frederick A. Matsen, Fred Hutchinson Cancer Research Center; Steven N. Evans, University of California, Berkeley

9:55 a.m. Determining Possible Causes of Recombination Hotspots in Retrovirus Sequences—◆Misha Rajaram, Iowa State University; Vladimir Minin, University of Washington; Karin S. Dorman, Iowa State University

10:15 a.m. Floor Discussion

122 CC-121 (West)

✪ Nonparametric Estimation for Mixture Models—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Michael Levine, Purdue University
Chair(s): Lingsong Zhang, Purdue University

8:35 a.m. Semiparametric Mixtures of Regressions—◆David Hunter, Penn State

8:55 a.m. Regularization Approach to Nonparametric Estimation in Multivariate Mixtures—◆Michael Levine, Purdue University; David Hunter, Penn State; Didier Chauveau, Université d'Orléans

9:15 a.m. Nonparametric Maximum Likelihood Estimation for Mixtures with Partial Priors—◆Ji-Ping Wang, Northwestern University

9:35 a.m. Predictive Recursion: Convergence Theory, Extensions, and Applications—◆Ryan Martin, Indiana University Purdue University Indianapolis; Surya Tokdar, Duke University

9:55 a.m. Nonparametric Estimation of Copulae with Penalized Hierarchical Mixture Densities—◆Goeran Kauermann, University Bielefeld

10:15 a.m. Floor Discussion

123 CC-122 (West)

■ Nonparametric and Robust Methods for Statistical Genetics—Topic-Contributed

Section on Nonparametric Statistics, Biometrics Section
Organizer(s): Gang Zheng, National Institutes of Health
Chair(s): Colin Wu, National Heart, Lung, and Blood Institute

8:35 a.m. Robust Summarization of Genomic Data to Perform Functional Variant Analysis—◆Kelci Miclaus, SAS Institute; Russ Wolfinger, SAS Institute; Mindy Zhang, Genzyme Corporation

8:55 a.m. Odds Ratio Bias in Case-Control Studies Using Robust Genetic Models—◆Neal Jeffries, National Heart, Lung, and Blood Institute

9:15 a.m. Two-Stage Adaptive Design for Case-Control Genetic Association Studies—◆Lihan Yan, FDA

9:35 a.m. Approximating Probabilities of Correlated Events—◆Qizhai Li, Chinese Academy of Sciences; Gang Zheng, National Institutes of Health; Aiyi Liu, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Zhaohai Li, The George Washington University; Kai Yu, National Cancer Institute

9:55 a.m. Robust Testing Strategy to Assess the Effect on Disease of Rare Variants in Large Genetic Regions—◆Iuliana Ionita-Laza, Columbia University

10:15 a.m. Floor Discussion

124 CC-221 (West)

Topics in Seasonality—Topic-Contributed

Business and Economic Statistics Section
Organizer(s): Tucker Sprague McElroy, U.S. Census Bureau
Chair(s): Peter Brian Kenny, PBK Research

8:35 a.m. A Graphical Interface for Weekly Seasonal Adjustment—David E. Byun, Bureau of Labor Statistics; ◆Thomas D. Evans, Bureau of Labor Statistics

8:55 a.m. An Evaluation of Kan and Wang's Adjusted Box-Pierce Test Using Seasonal Time Series—◆Brian Carl Monsell, U.S. Census Bureau

9:15 a.m. On the Seasonal Adjustment of Long Memory Time Series—◆Scott Holan, University of Missouri; Tucker Sprague McElroy, U.S. Census Bureau

9:35 a.m. Investigating Spectral Analysis in the X-12-ARIMA Seasonal Adjustment Program: Theory and Practice—◆Wilma S. Jackson, SAS Institute

9:55 a.m. The Flow Estimates of Australia Labour Force Hours Worked and Seasonal Adjustment—◆Xichuan Mark Zhang, Australian Bureau of Statistics; Noel Hansen, Australian Bureau of Statistics

10:15 a.m. Floor Discussion

Contributed Sessions 8:30 a.m.–10:20 a.m.

125 CC-216 (West)

Bioinformatics—Contributed

Biometrics Section

Chair(s): Tracy L. Bergemann, University of Minnesota

8:35 a.m. Methods for Comparing Across-Target Sequences in Small-Scale qRT-PCR Experiments—◆Stuart W. Gardner, Iowa State University; Jack M. Gallup, Iowa State University; Max Morris, Iowa State University; F. Chris Minion, Iowa State University

8:50 a.m. Massively Parallel Linear Modeling of Gene Expression Data—◆Walter Liggett, National Institute of Standards and Technology

9:05 a.m. More Efficient Experimental Designs for CNV Studies Utilizing aCGH Technology—◆Jeanette Eckel-Passow, Mayo Clinic; Shannon McDonnell, Mayo Clinic; Shaun Riska, Mayo Clinic; Erik Thorland, Mayo Clinic; Eric Klee, Mayo Clinic

9:20 a.m. Detecting Gene-Gene Interactions with Survival Times Based on Generalized Multifactor Dimensionality Reduction Method—◆Seungyeoun Lee, Sejong University; Min-Seok Kwon, Seoul National University; Jaebong Lee, Sejong University; Taesung Park, Seoul National University

9:35 a.m. Stereotype Logit Models for High-Dimensional Data—◆Andre Williams, Virginia Commonwealth University; Kellie Archer, Virginia Commonwealth University

9:50 a.m. Adjusting for Transcript Length Bias in RNA-seq to Improve Downstream Analyses—◆Justin Wade Davis, University of Missouri

10:05 a.m. Floor Discussion

126 CC-206 (West)

■ ✪ Diagnostic Accuracy and Agreement—Contributed

Biometrics Section, Biopharmaceutical Section

Chair(s): Bonnie LaFleur, Mel and Enid Zuckerman College of Public Health

8:35 a.m. Estimating the Agreement and Diagnostic Accuracy of Two Diagnostic Tests When One Test Is Conducted on Only a Subsample of Specimens—◆Hormuzd A. Katki, National Cancer Institute; Yan Li, The University of Texas at Arlington; Philip E. Castle, National Cancer Institute

8:50 a.m. Evaluation of Individual Observer Agreement for Matched Repeated Binary Measurements—◆Jingjing Gao, Emory University; Michael Haber, Emory University

9:05 a.m. Exact Inferences of the Youden Index—◆Chin-Ying Lai, State University of New York at Buffalo; Enrique F. Schisterman, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Lili Tian, State University of New York at Buffalo

9:20 a.m. Agreement Index: A Novel Measure for Reproducibility and Agreement—◆Zheng Zhang, Brown University

9:35 a.m. Nonparametric and Semiparametric Optimal Transformations of Markers—◆Chin-Tsang Chiang, National Taiwan University

9:50 a.m. Estimation of the Area Under ROC Curve with Censored Data—◆Lili Yao, Northwestern University; Qihua Wang, Chinese Academy of Sciences

10:05 a.m. Evaluating the Agreement Between Two Observers with Replicated Quantitative Measurements Using the Coefficient of Individual Equivalence—◆Yi Pan, Emory University; Michael Haber, Emory University

127 CC-207 (West)

■ ✪ Poisson Models and Other Generalized Linear Models—Contributed

Biometrics Section

Chair(s): Jason Brinkley, East Carolina University

8:35 a.m. Generalized Score Test for Zero Mixture in Count Data—◆Wei-Wen Hsu, Michigan State University; David Todem, Michigan State University

8:50 a.m. The Zero-Truncated Poisson Model with Right Censoring: An Application to Translational Breast Cancer Research—◆Hung-Wen Yeh, The University of Kansas Medical Center; Purna Mukhopadhyay, The University of Kansas Medical Center; Fariba Behbod, The University of Kansas Medical Center; Byron J. Gajewski, The University of Kansas

9:05 a.m. Analyzing Data from a Split-Plot Experiment When the Observations Have Overdispersed Poisson Distributions—◆Jia Liu, Iowa State University; Philip Michael Dixon, Iowa State University

9:20 a.m. Finding the Right Distribution for Highly Skewed Zero-Inflated Clinical Data—◆Resmi Gupta, Cincinnati Children's Hospital Medical Center; Bradley S. Marino, Cincinnati Children's Hospital Medical Center; James F. Cnota, Cincinnati Children's Hospital Medical Center; Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center

9:35 a.m. Analysis of Constrained Generalized Linear Models with Missing Data—◆Karelyn Davis, Carleton University/Health Canada; Sanjoy Sinha, Carleton University; Chul Gyu Park, Carleton University

9:50 a.m. Maximum Likelihood Estimation in Generalized Linear Models with Censored Covariate Data—◆Ryan May, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Haitao Chu, The University of North Carolina at Chapel Hill

10:05 a.m. Floor Discussion

128 CC-212 (West)

■ Bayesian Analysis of Clinical Trial Data—Contributed

Biopharmaceutical Section, Section on Bayesian Statistical Science, ENAR
Chair(s): Scott William Miller, CDRH/FDA

8:35 a.m. A Bayesian Modeling Approach for Safety Data Analysis in Drug Development—◆Yu Gu, Florida State University; Ke Zhang, Pfizer Inc.; Liqiang Yang, Pfizer Inc.

8:50 a.m. Operational Characteristics of a Go/No-Go Decision Rule in an Early Clinical Trial—◆Atalanta Ghosh, Johnson & Johnson; Jose Carlos Pinheiro, Johnson & Johnson; Paul Rothenberg, Johnson & Johnson

9:05 a.m. A Conditional Bayesian Logistic Regression Model (BLRM) with Overdose Control—◆Lu-May Chiang, Novartis Pharmaceuticals Corporation; Adarsh Joshi, Eli Lilly and Company; David Ohlssen, Novartis Pharmaceuticals Corporation; Jyotirmoy Dey, Novartis Pharmaceuticals Corporation

9:20 a.m. Multivariate Longitudinal Bayesian Imputation for Global Statistical Test, with Applications to Parkinson's Disease—◆Sheng Luo, The University of Texas School of Public Health; Andrew Lawson, Medical University of South Carolina; Jordan J. Elm, Medical University of South Carolina; Barbara C. Tilley, The University of Texas Health Science Center at Houston

9:35 a.m. EWOC Online: A Novel Web Application for Computing a Bayesian Phase I Design Method for Dose-Finding with Escalation with Overdose Control—◆Dror Berel, Cedars-Sinai Medical Center; Andre Rogatko, Oschin Comprehensive Cancer Institute

9:50 a.m. Analysis of Drug Effect on Counts of Lymphocyte Subsets—◆Jiacheng Yuan, Astellas Pharma Global Development, Inc.

10:05 a.m. A Multistate Modeling and Prediction of Survival Distribution Using Information on Subject's Tumor Response Over Time—◆Shengyan Hong, MedImmune; Iiya Lipkovich, Eli Lilly and Company; Yan Daniel Zhao, Eli Lilly and Company

129 CC-203 (West)

■ Use of Linear Mixed Models and Generalized Estimating Equations in Clinical Trials—Contributed

Biopharmaceutical Section
Chair(s): Kyoungah See, Eli Lilly and Company

8:35 a.m. Relative Power and Robustness of Mixed Model, GEE, and MMRM Analysis of Alzheimer's Disease Treatment Trials—◆Steven D. Edland, University of California, San Diego

8:50 a.m. Time-Variant Response Patterns and Modeling Precise Assessment Time in Confirmatory Clinical Trials—◆Yoko Tanaka, University of Pittsburgh Graduate School of Public Health

9:05 a.m. An Observation on the GEE Under a Full Model for the Mean—◆Zhen (Robert) Luo, Pfizer (China) Research and Development Co.; Peng (Roger) Qu, Pfizer (China) Research and Development Co.

9:20 a.m. Variability Exploration in Six Phase III Diabetes Clinical Trials: Implications for Research Studies—◆Hua Guo, Merck Research Laboratories; Bret Musser, Merck Research Laboratories

9:35 a.m. Evaluation of Common Statistical Methods in Randomized Delayed-Start Design of Progression Disease Clinical Trials—◆Thomas Kelleher, Bristol-Myers Squibb; Bongin Yoo, Bristol-Myers Squibb

9:50 a.m. Predictions in Generalized Linear Mixed Model—◆Chenghsueh Yang, University of California, Riverside

10:05 a.m. Lack-of-Fit Test for Logistic GEE Models—◆Zhongwen Tang, Novartis Oncology

130 CC-204 (West)

Interim Analyses and Assessments of Futility—Contributed

Biopharmaceutical Section
Chair(s): Shanti Gomatam, FDA/CDRH

8:35 a.m. Futility Assessment Utilizing Conditional Power in a Phase III Clinical Trial—◆Yan Sun, Amgen Inc.

8:50 a.m. Sample Size and Power Considerations for Futility Trial Design: Buying Power vs. Spending Beta—◆Thomas Dobbins, Merck & Co., Inc.

9:05 a.m. Optimization of Error Spending Approach in Clinical Trials—◆Michael Baron, The University of Texas at Dallas; Yi Zhong, The University of Texas at Dallas

9:20 a.m. Conditional Power and Predictive Power Approaches to Interim Monitoring in Equivalence Trials—◆Xiaojiang Zhan, Merck & Co., Inc.

9:35 a.m. Optimal Two-Stage Phase II Design Utilizing Partial Information for Long-Term Endpoints—◆Bo Huang, Pfizer Inc.; Enayet Talukder, Pfizer Inc.; Neal Thomas, Pfizer Inc.

9:50 a.m. Should the Conditional Type I Error Rate Be Controlled?—◆Tie-Hua Ng, FDA

10:05 a.m. Two-Stage Designs with Additional Futility Tests for Phase II Clinical Trials with Heterogeneous Patient Populations—◆Myron N. Chang, University of Florida; Sin-Ho Jung, Duke University

131 CC-201 (West)

✪ Finance and Theory—Contributed

Business and Economic Statistics Section
Chair(s): Hector R. Ramirez Partida, State University of Nayarit

8:35 a.m. Clustering of Time Series—◆Raja Velu, Syracuse University

8:50 a.m. Arbitrage-Free Linear Price Function Models for the Term Structure of Interest Rates—◆Andrew F. Siegel, University of Washington

9:05 a.m. Lambert W Random Variables: A New Family of Generalized Skewed Distributions—◆Georg Matthias Goerg, Carnegie Mellon University

9:20 a.m. Bond and Option Pricing with Random Field Interest Models—◆Baowei Xu, The University of North Carolina at Chapel Hill; Chuanshu Ji, The University of North Carolina at Chapel Hill

9:50 a.m. Floor Discussion

132 CC-214 (West)

■ ✪ Statistical Genetics and Genomics—Contributed

ENAR, Biometrics Section
Chair(s): Alina Andrei, University of Wisconsin-Madison

8:35 a.m. Mixture Regression Modeling of Next-Generation Sequencing Data—◆Naim Rashid, The University of North Carolina at Chapel Hill

8:50 a.m. Evaluation of Mixed-Model for Control of Population Stratification in Human Genetic Studies—◆Nianjun Liu, The University of Alabama at Birmingham; Hongyu Zhao, Yale University; David B. Allison, The University of Alabama at Birmingham

9:05 a.m. Integrating Ordinary Differential Equations into Functional Mapping for Soybean Data—◆Guifang Fu, Penn State; Rongling Wu, Penn State

9:20 a.m. A Multivariate Penalized Regression Method for eQTL Mapping—◆Ting-Huei Chen, The University of North Carolina at Chapel Hill; Wei Sun, The University of North Carolina at Chapel Hill; Fred Wright, The University of North Carolina at Chapel Hill

9:35 a.m. Statistical Practice in High-Throughput siRNA Screens Identifying Genes Mediating Sensitivity to Chemotherapeutic Drugs—◆Fei Ye, Vanderbilt University; Yu Shyr, Vanderbilt University

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

9:50 a.m. Analysis of Untyped SNPs: Maximum Likelihood and Single Imputation Methods—◆Yijuan Hu, The University of North Carolina at Chapel Hill; Danyu Lin, The University of North Carolina at Chapel Hill

10:05 a.m. Floor Discussion

133 CC-116 (West)

■ ✪ Stochastic Processes and Graphs—Contributed

IMS

Chair(s): Vincent Zhai, The University of British Columbia

8:35 a.m. Change-Point Detection in Time Series of Attributed Graphs—◆Lucy F. Robinson, The Johns Hopkins University; Carey E. Priebe, The Johns Hopkins University; Nam Lee, The Johns Hopkins University

8:50 a.m. Multiscale Diffusion Approximations for Open Queueing Networks in Heavy Traffic—◆Xin Liu, The University of North Carolina at Chapel Hill

9:05 a.m. Inverse Stochastic Transfer Principle—◆Matthew Linn, University of Michigan

9:20 a.m. Applications of Gaussian Subordination Models in Climate Research—◆Sucharita Ghosh, Swiss Federal Research Institute WSL

9:35 a.m. An Alternative Approach to the Study of Compatibility of Two Matrices—◆Indranil Ghosh, University of California, Riverside; Indranil Ghosh, University of California, Riverside

9:50 a.m. Floor Discussion

134 CC-117 (West)

✪ Asymptotics—Contributed

IMS

Chair(s): Ximing Xu, University of Toronto

8:35 a.m. Some Large Sample Properties for Pairwise Likelihood-Based Estimators—◆Gongjun Xu, Columbia University; Zhiliang Ying, Columbia University

8:50 a.m. A Test for the Equality of Two Covariance Matrices When the Dimension Is Much Larger Than Two Sample Sizes—◆Jun Li, Iowa State University; Song X. Chen, Iowa State University/Peking University

9:05 a.m. Asymptotics for Time-Dependent Autoregressive Processes—◆Sreenivas Konda, Temple University

9:20 a.m. Asymptotic Behavior of Weights in the Adaptive Regression by Mixing—◆Chihche Lin, Astellas Pharma Global Development, Inc.; Yuhong Yang, University of Minnesota

9:35 a.m. An Arcsin Limit Theorem of D-Optimal Designs for Weighted Polynomial Regression—◆Fu-Chuen Chang, National Sun Yat-sen University; Jhong-Shin Tsai, National Sun Yat-sen University

9:50 a.m. Bootstrapping Possibly Misspecified Over-Identified Models—◆Mihai Cristian Giurcanu, University of Louisiana at Lafayette; Brett Douglas Presnell, University of Florida

10:05 a.m. Exact Asymptotic Distribution of Change Point MLE for Change in the Mean of Gaussian Sequences—◆Stergios B. Fotopoulos, Washington State University; Venkata K. Jandhyala, Washington State University

135 CC-15 (East)

Applied Statistics and Programming—Contributed

Section for Statistical Programmers and Analysts

Chair(s): Rachna Mittal, Genentech

8:35 a.m. An Introduction to NHANES Data Using SAS Proc SurveyLogistic—◆Todd Case, Bristol-Myers Squibb

8:50 a.m. Establishing Relationship of Statistical Software Through Pharmacokinetics—◆Jagannath Ghosh, Bausch and Lomb; Camille Granville, Novartis Pharmaceuticals Corporation

9:05 a.m. How to Improve Efficiency and Productivity of Statistical Output—◆Nancy Wang, Celerion

9:20 a.m. Software for Targeted Maximum Likelihood Estimation—◆Susan Gruber, University of California, Berkeley; Mark J. Van der Laan, University of California, Berkeley

9:35 a.m. SAS Programming for Pharmacoepidemiology Studies—◆Ying Su, Merck & Co., Inc.

9:50 a.m. An Algorithm to Evaluate Probability of Success for Decisionmaking in Early Drug Development—◆Annie Wang, Abbott Laboratories; Narinder Nangia, Abbott Laboratories

10:05 a.m. To Modernize the Analysis and Reporting Space ... and Beyond—◆Christopher John Colangelo, Eli Lilly and Company; Greg Anglin, Eli Lilly and Company

136 CC-14 (East)

Sparse Estimation and Testing—Contributed

Section on Statistical Computing

8:35 a.m. A Computationally Efficient and Statistically Robust Optimal Discovery Procedure Estimator—◆Sangsoon Woo, University of Washington; John Storey, Princeton University

8:50 a.m. Computing the Nearest Positive Definite Covariance Matrix from a Nonpositive Definite Matrix—◆Jose H. Guardiola, Texas A&M University; Rachel Larreta, Texas A&M University; Pablo Tarazaga, Texas A&M University; Hassan Elsalloukh, University of Arkansas at Little Rock

9:05 a.m. Orthonormally Constrained Optimization with Application to Regularized PCA—◆Trevor Park, University of Florida

9:20 a.m. Efficient Kriging for Large Spatial Fields—◆Karl Pazdernik, Iowa State University; Ranjan Maitra, Iowa State University; Douglas Nychka, National Center for Atmospheric Research; Stephan Sain, National Center for Atmospheric Research

9:35 a.m. Sparse Multivariate Regression with Covariance Estimation—◆Adam Rothman, University of Michigan; Elizaveta Levina, University of Michigan; Ji Zhu, University of Michigan

9:50 a.m. Pairwise Variable Selection for Classification—◆Xingye Qiao, The University of North Carolina at Chapel Hill; Yufeng Liu, The University of North Carolina at Chapel Hill; J. S. Marron, The University of North Carolina at Chapel Hill

137 CC-302/303 (West)

Business, Statistics, and Marketing—Contributed

Section on Statistics and Marketing
Chair(s): Leonardo Auslender, SAS Institute

8:35 a.m. Increasing the Accuracy of Discrete Choice Models Using CART-Determined Interactions—◆Ingo Bentrott, University of Technology, Sydney

8:50 a.m. Modeling Marketing Data with Collinear Data—◆Joseph Retzer, MarketTools Inc.

9:05 a.m. The Feasibility for a Master's Program in Business Analytics—◆David Dobson, Simon Fraser University

9:20 a.m. A Bayesian Vector Multidimensional Scaling Procedure for the Analysis of Ordered Preference Data—◆Duncan K.H. Fong, Penn State

9:35 a.m. Determining Automotive Demand: Demographic or Registration Data?—◆James Wendelberger, Urban Science Applications, Inc.

9:50 a.m. Key Driver Analysis with Very Small Samples: Using the Analytic Hierarchy Process Method—◆Shon Magnan, GfK Custom Research North America; Stan Lipovetsky, GfK Custom Research North America

10:05 a.m. Floor Discussion

138 CC-119 (West)

■ Methodological Advances for Ecological Modeling—Contributed

Section on Statistics and the Environment, Biometrics Section
Chair(s): Devin Johnson, NOAA

8:35 a.m. Increasing Efficiency of Conservation Application: Conservation Design for Rare Birds in the Upper Midwestern United States—◆Wayne E. Thogmartin, U.S. Geological Survey

8:50 a.m. A Hierarchical Bayesian Model for Environmental Correlated Count Processes with Application to Fisheries Habitat Management—◆Ali Arab, Georgetown University; Scott Holan, University of Missouri; Christopher Wikle, University of Missouri; Mark Wildhaber, U.S. Geological Survey

9:05 a.m. An Evaluation of the N-Mixture Model for Pseudo-Replicated Count Data in Animal Abundance Estimation—◆Sherwin G. Toribio, University of Wisconsin-La Crosse; Brian R. Gray, U.S. Geological Survey

9:20 a.m. Sample-Size Estimation for Detecting Trends in Repeated Surveys—◆Mark C. Otto, U.S. Fish and Wildlife Service

9:35 a.m. Web-Based Tools for Nonparametric Estimation of Species Distribution Using Presence-Only Data—◆Colin Rundel, University of California, Los Angeles

9:50 a.m. Space-Time Capture-Recapture Models—◆Cornelis J. Potgieter, Texas A&M University; Chris Field, Dalhousie University; Marc Genton, Texas A&M University; Alan Welsh, The Australian National University

10:05 a.m. Floor Discussion

139 CC-208 (West)

Longitudinal Data Analysis—Contributed

Section on Statistics in Epidemiology
Chair(s): Ning Hao, Princeton University

8:35 a.m. Topics on Analyzing Recurrent Event Data with Sparsely Observed Longitudinal Information—◆Ye Shen, Yale University; Yongtao Guan, Yale University

8:50 a.m. Inference for Kappas for Longitudinal Study Data: Applications to Sexual Health Research—◆Yan Ma, Hospital for Special Surgery, Weill Medical College of Cornell University; Wan Tang, University of Rochester; Changyong Feng, University of Rochester Medical Center; Xin M. Tu, University of Rochester

9:05 a.m. Confounding Bias Correction for Longitudinal Data—◆Yuanzhang Li, Walter Reed Army Institute of Research; Robert Yolken, Johns Hopkins School of Medicine; David Niebuhr, Walter Reed Army Institute of Research

9:20 a.m. Outcome-Dependent Sampling for Continuous Longitudinal Response Data—◆Jonathan Schildcrout, Vanderbilt University; Paul J. Rathouz, The University of Chicago; Patrick Heagerty, University of Washington

9:35 a.m. Quantile Regression for Longitudinal Data with Left-Censoring and Informative Dropouts—◆Minjae Lee, University of Pittsburgh; Lan Kong, University of Pittsburgh

9:50 a.m. A Bayesian Hierarchical Model for Combining Multiple Longitudinal Aging Studies—◆Nuoo-Ting Molitor, Imperial College, London; Sylvia Richardson, Imperial College, London; John Molitor, Imperial College, London; Nicky Best, Imperial College, London

10:05 a.m. Floor Discussion

140 CC-222 (West)

■ ✪ Assessing Measurement Error—Contributed

Section on Survey Research Methods

Chair(s): Scott Fricker, Bureau of Labor Statistics

8:35 a.m. Methods for the Analysis of Cognitive Interviews—Johnny Blair, Abt Associates, Inc.; ◆Pat Dean Brick, Westat

8:50 a.m. Effects of Unbounded Interviews, Time-in-Sample, and Recency on Reported Crimes in the National Crime Victimization Survey—◆Robert E. Fay, Westat; Jianzhu Li, Westat

9:05 a.m. Measuring Time Use in Surveys: A Novel Validation of Survey Questions Through Experience Sampling—◆Bettina Sonnenberg, German Institute for Economic Research; Michaela Riediger, Max Planck Institute for Human Development; Cornelia Wrzus, Max Planck Institute for Human Development; Gert G. Wagner, German Institute for Economic Research

9:20 a.m. Latent Class Analysis in Computer Expenditure Reports—◆Brian Meekins, Bureau of Labor Statistics; Clyde Tucker, Bureau of Labor Statistics; Paul Biemer, RTI International

9:35 a.m. Verbal Paradata and Survey Question Content: How Question Sensitivity and Cognitive Complexity Influence the Way Answers (and Nonanswers) to Survey Questions Are Delivered—◆Matt Jans, U.S. Census Bureau

9:50 a.m. Roads to Rome: A Comparison of Alternative Approaches for Evaluating Survey Error by Integrating Data from the National Immunization Survey and State Immunization Registries—◆Reiping Huang, NORC; Kennon R. Copeland, NORC; Philip J. Smith, National Center for Immunization and Respiratory Diseases; Karen Cullen, National Center for Immunization and Respiratory Diseases; Elizabeth Ormson, NORC; Kirk Wolter, NORC

10:05 a.m. Split Sample Reinterview: Some Relationships—◆Dhiren Ghosh, Synectics for Management Decisions Inc.

141 CC-224 (West)

■ Response Rates in Multimode Surveys and Modeling of Nonresponse—Contributed

Section on Survey Research Methods, Section on Government Statistics

Chair(s): Mary Batcher, Ernst & Young

8:35 a.m. A Comparison of Mail and Face-to-Face Responses in a Dual-Mode Survey of Physicians—◆Esther Hing, National Center for Health Statistics; Chun-Ju Hsiao, National Center for Health Statistics; Paul Beatty, National Center for Health Statistics

8:50 a.m. The Effects of a Mixed-Mode Experiment on Response Rates and Nonresponse Bias in a Survey of Physicians—◆Emily McFarlane Geisen, RTI International; Joseph Murphy, RTI International; Murrey G. Olmsted, RTI International; Jessica Severance, RTI International

9:05 a.m. Response and Mode Switching in a Sequential Mixed-Mode Design—◆Rachel Levenstein, University of Michigan; James Lepkowski, University of Michigan; Jennifer Barber, University of Michigan

9:20 a.m. Comparison of Different Models for Predicting the Probability of Interview Completion in Complex Telephone Surveys—◆Xian Tao, NORC; Robert Montgomery, NORC; Zhen Zhao, CDC; Meena Khare, National Center for Health Statistics

9:35 a.m. Modeling and Simulation of Survey Collection Using Paradata—◆Kristen Couture, Statistics Canada; Elisabeth Neusy, Statistics Canada; Yves Bélanger, Statistics Canada

9:50 a.m. Dynamic Modeling of Household Survey Completion That Requires All Member Responses: Survival Analysis of Grouped Units—◆Hiroaki Minato, NORC

10:05 a.m. Providing Actionable Information from Sample Monitoring Data for Special Subsamples—◆Elizabeth Ormson, NORC; Wei Zeng, NORC; Lin Liu, NORC; Christina Dorell, National Center for Immunization and Respiratory Diseases

142 CC-223 (West)

■ Modeling Diagnostics and Software for Sample Surveys—Contributed

Section on Survey Research Methods, Section for Statistical Programmers and Analysts

Chair(s): Jill Dever, RTI International

8:35 a.m. Statistical Graphics of Pearson Residuals in Survey Logistic Regression Diagnosis—◆Stanley S. Weng, National Agricultural Statistics Service

8:50 a.m. Evaluating Imputation Methods and Software for Missing Vaccination Data in the National Immunization Survey—◆Taylor Lewis, National Center for Health Statistics; Meena Khare, National Center for Health Statistics

9:05 a.m. Testing the Robustness of BUGS and MPLUS—◆Jiaquan Fan, Westat

9:20 a.m. Estimating the R-Indicator, Its Standard Error, and Other Related Statistics with SAS and SUDAAN—◆Michael Witt, RTI International

9:35 a.m. Floor Discussion

143 CC-220 (West)

Survey Models for Causal Estimation, Calibration, and Bayesian Estimation—Contributed

Section on Survey Research Methods, Section on Bayesian Statistical Science

Chair(s): Rebecca Roberts Andridge, The Ohio State University

8:35 a.m. Causal Inference Using Semiparametric Imputation—◆Andrea Piesse, Westat; David Judkins, Westat; Laura Alvarez-Rojas, Westat; William R. Shadish, University of California, Merced

8:50 a.m. Inference on Direct and Mediated Causal Effects Using the Sequential Regression Multiple Imputation Framework—◆Irina Bondarenko, University of Michigan; Trivellore Raghunathan, University of Michigan

9:05 a.m. Building Regression Trees on Data from a Complex Sample—◆Daniell Toth, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

9:20 a.m. Logistic Generalized Regression (LGREG) Estimator in Cluster Samples—◆Timothy Kennel, U.S. Census Bureau

9:35 a.m. An Evaluation of Ratio Estimators of the Mean with Unequal Probability Samples—◆Fotios K. Kokkotos, Trinity Partners, Inc.; Roderick Joseph Little, University of Michigan; Emma Boswell, Trinity Partners, Inc.

9:50 a.m. Modeling Log-Linear Restricted Conditional Probabilities for Prediction in Surveys—◆Yves Thibaudeau, U.S. Census Bureau; Eric Slud, U.S. Census Bureau; Alfred Gottschalck, U.S. Census Bureau

10:05 a.m. Bayesian Quantile Regression in Stratified Sampling—◆Nanhua Zhang, University of Michigan; Michael R. Elliott, University of Michigan

Invited Sessions
10:30 a.m.–12:20 p.m.

144 CC-13 (East)

■ Statistical Genomics in Cancer Research—Invited

International Indian Statistical Association, Biometrics Section, IMS, International Chinese Statistical Association

Organizer(s): Nilanjan Chatterjee, National Cancer Institute
Chair(s): Nilanjan Chatterjee, National Cancer Institute

10:35 a.m. Improve the Accuracy of Calling Short CNVs in Genomewide Association Studies—◆Jianxin Shi, National Cancer Institute

11:00 a.m. Statistical Methods for Detecting Rare Variants Associated with Disease Phenotypes Using Next-Generation Sequencing Data—◆Xihong Lin, Harvard School of Public Health

11:25 a.m. Statistical Analysis of Somatic Changes in Cancer Genomics—◆Giovanni Parmigiani, Harvard University

11:50 a.m. Novel Methodologies for Gene Network Interaction Analysis and Network Modeling with Applications to Cancer Research and Cardiovascular Disease—◆Bala Rajaratnam, Stanford University; Kshitij Khare, University of Florida; Julia Salzman, Stanford University

12:15 p.m. Floor Discussion

145 CC-110 (West)

■ ✪ Gene-Network Analysis for High-Dimensional Data—Invited

Section on Statistical Learning and Data Mining, IMS, International Chinese Statistical Association, Section on Statistical Computing

Organizer(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

10:35 a.m. Penalized Estimation of Sparse High-Dimensional–Directed Acyclic Graphs—◆George Michailidis, University of Michigan

11:00 a.m. Joint Inference of Sparse Network and Genetic Association in Genetical Genomics Studies—◆Hongzhe Li, University of Pennsylvania

11:25 a.m. Learning Regulatory Network from Multiple Genomics Array Data—◆Pei Wang, Fred Hutchinson Cancer Research Center; Jie Peng, University of California, Davis

11:50 a.m. Grouping and Selection Over a Network Specified by a Directed Graph—◆Xiaotong Shen, University of Minnesota; Hsin-Cheng Huang, Academia Sinica

12:15 p.m. Floor Discussion

146 CC-109 (West)

■ ✪ Medallion Lecture I—Invited

IMS, International Chinese Statistical Association

Organizer(s): Regina Liu, Rutgers University
Chair(s): Regina Liu, Rutgers University

10:35 a.m. What Can We Do When EM Is Not Applicable? Self Consistency: A General Recipe for Semiparametric and Nonparametric Estimation with Incomplete and Irregularly Spaced Data—◆Xiao-Li Meng, Harvard University

12:15 p.m. Floor Discussion

147 CC-111/112 (West)

Bayesian Analysis Invited Session—Invited

Section on Bayesian Statistical Science, ENAR

Organizer(s): Alyson Wilson, Iowa State University
Chair(s): Bradley P. Carlin, University of Minnesota

10:35 a.m. Bayesian Generalized Method of Moments—◆Guosheng Yin, The University of Hong Kong

11:05 a.m. Hierarchical Model Building, Fitting, and Checking: A Behind-the-Scenes Look at a Bayesian Analysis of Arsenic Exposure Pathways—◆Peter F. Craigmile, The Ohio State University; Catherine Calder, The Ohio State University; Hongfei Li, IBM T.J. Watson Research Center; Rajib Paul, Western Michigan University; Noel A. Cressie, The Ohio State University

11:35 a.m. A Stochastic Partitioning Method to Associate High-Dimensional Data Sets—◆Mahlet G. Tadesse, Georgetown University; Stefano Monni, Weill Cornell Medical College

12:05 p.m. Floor Discussion

148 CC-202 (West)

■ ✪ Statistical Methods Using High-Dimensional Data in Survival Analysis and Their Application—Invited

ENAR, IMS

Organizer(s): Qi Long, Emory University
Chair(s): Menggang Yu, Indiana University School of Medicine

10:35 a.m. Relaxed Estimating Equations for Sparse Mark Variable Regression—◆Brent Johnson, Emory University

11:05 a.m. Sufficient Dimension Reduction and Variable Selection for Censored Regression—◆Wenbin Lu, North Carolina State University; Lexin Li, North Carolina State University

11:35 a.m. Feature Selection for Censored Outcomes with Simultaneous Adjustment for Nonlinear Covariate Effect and Improved Risk Scores of Prostate Cancer Recurrence—◆Qi Long, Emory University; Brent Johnson, Emory University; Carlos S. Moreno, Emory University

12:05 p.m. Floor Discussion

149 CC-211 (West)

The I. J. Good Memorial Session: Remembering a Genius—Invited

Memorial, Section on Bayesian Statistical Science
Organizer(s): Scotland Leman, Virginia Tech
Chair(s): Golde Holtzman, Virginia Tech

10:35 a.m. Good Bayesian and Other Thinking—◆Stephen E. Fienberg, Carnegie Mellon University

11:00 a.m. Statistical Foundations and the Philosophy of I. J. Good—◆James Berger, Duke University

11:25 a.m. Dynamic Model Averaging for Online Prediction of Continuous and Discrete Processes—◆Adrian E. Raftery, University of Washington

11:50 a.m. Disc: David Banks, Duke University

12:10 p.m. Floor Discussion

150 CC-220 (West)

■ ✪ Statistical Evaluation of Markers Used to Select Treatment—Invited

Biometrics Section
Organizer(s): Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center
Chair(s): Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center

10:35 a.m. A Case Study of Using a Genomic Assay to Predict the Benefit of Chemotherapy in Treating Breast Cancer: Testing, Prediction, and Study Planning—◆William E. Barlow, Cancer Research and Biostatistics (CRAB); Carl Yoshizawa, Genomic Health, Inc.

11:00 a.m. Measuring the Performance of Markers Used to Select Patient Treatment—◆Holly Janes, Fred Hutchinson Cancer Research Center

11:25 a.m. Evaluating Markers for Treatment Selection—◆Xiao Song, The University of Georgia; Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center; Xiao-Hua Zhou, University of Washington

11:50 a.m. Clinical Trial Designs for Predictive Biomarker Validation: Theoretical Considerations and Practical Challenges—◆Daniel Sargent, Mayo Clinic; Sumithra Mandrekar, Mayo Clinic

12:15 p.m. Floor Discussion

151 CC-210 (West)

■ ✪ Evaluation, Modeling, and Management of Costs and Risks During Changes in Survey Procedures—Invited

Section on Survey Research Methods, Section on Government Statistics, Health Policy Statistics Section
Organizer(s): John L. Eltinge, Bureau of Labor Statistics
Chair(s): Cheryl Eavey, National Science Foundation

10:35 a.m. The Use of Paradata to Monitor and Manage Survey Data Collection—Mick Couper, University of Michigan; ◆Frauke Kreuter, University of Maryland; Lars Lyberg, Statistics Sweden

11:00 a.m. Design and Operational Changes for REACH US—◆Rachel Harter, NORC

11:25 a.m. The Influence of Prior Experiences in Managing Current and Future Risks During Survey Transition Points on the NSDUH—◆Joe Gfroerer, Substance Abuse and Mental Health Services Administration; Jonaki Bose, Substance Abuse and Mental Health Services Administration

11:50 a.m. Disc: John L. Eltinge, Bureau of Labor Statistics

12:10 p.m. Floor Discussion

152 CC-Ballroom C (West)

JASA - Theory and Methods Invited Session—Invited

JASA, Theory and Methods
Organizer(s): Leonard A. Stefanski, North Carolina State University
Chair(s): Leonard A. Stefanski, North Carolina State University

10:35 a.m. Correlated z-Values and the Accuracy of Large-Scale Statistical Estimates—◆Bradley Efron, Stanford University

11:15 a.m. Disc: Armin Schwartzman, Harvard School of Public Health

11:30 a.m. Disc: Tony Cai, University of Pennsylvania

11:45 a.m. Disc: Peter H. Westfall, Texas Tech University

12:15 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Invited Panels 10:30 a.m.–12:20 p.m.

153 CC-301 (West)

■ ✪ How Government Statistics Make a Difference—Invited

Section on Government Statistics, Health Policy Statistics Section, Social Statistics Section
Organizer(s): Robert Lussier, Statistics Canada
Chair(s): Sally Morton, RTI International

Panelists:
◆Keith Hall, Bureau of Labor Statistics
◆Munir Sheikh, Statistics Canada
◆Jil Matheson, UK Statistics Authority
◆Brian Pink, Australian Bureau of Statistics
◆Cynthia Clark, National Agricultural Statistics Service

12:15 p.m. Floor Discussion

154 CC-118 (West)

■ ✪ Teaching to Diversity—Invited

Section on Teaching of Statistics in the Health Sciences, Section on Statistics and the Environment
Organizer(s): Mary W. Gray, American University
Chair(s): Mary W. Gray, American University

Panelists:
◆Patrick Arbogast, Vanderbilt University
◆Nora Donaldson, Kings College London Dental Institute
◆Jodi Lapidus, Oregon Health & Science University
◆Gary Shapiro, Statistics Without Borders
◆Violeta Alicia Nolberto Sifuentes, Universidad Nacional Mayor de San Marcos

12:15 p.m. Floor Discussion

155 CC-306 (West)

■ Doing Better Than Average: Tailored Therapeutics in Drug Development—Invited

Biopharmaceutical Section
Organizer(s): Stephen J. Ruberg, Eli Lilly and Company
Chair(s): Susan Ellenberg, University of Pennsylvania School of Medicine

Panelists:
◆Stan Young, National Institute for Statistical Science
◆Stephen J. Ruberg, Eli Lilly and Company
◆Frank Rockhold, GlaxoSmithKline
◆Sue-Jane Wang, FDA
◆Stephen Senn, University of Glasgow

12:15 p.m. Floor Discussion

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

156 CC-212 (West)

■ ✪ New Ideas for Matched Analysis in Observational Studies—Topic-Contributed

Health Policy Statistics Section, Biometrics Section, International Chinese Statistical Association
Organizer(s): Bo Lu, The Ohio State University
Chair(s): Thomas E. Love, Case Western Reserve University

10:35 a.m. Diagnostics and Practical Use of Prognostic Scores—◆Carrie Hosman, University of Michigan; Ben B. Hansen, University of Michigan

10:55 a.m. Using Multiple Control Groups as Evidence About Unobserved Biases in an Observational Study of Mental Health Care Parity—◆Frank Yoon, Harvard Medical School

11:15 a.m. Unmeasured Covariates in Repeated Observational Studies—◆Bo Lu, The Ohio State University; Chih-Lin Li, The Ohio State University

11:35 a.m. Joint Matching on Propensity Scores and Disease Risk Scores in Observational Studies of Drug Effects—◆Robert Glynn, Brigham and Women's Hospital

11:55 a.m. Disc: Jason Roy, University of Pennsylvania

12:15 p.m. Floor Discussion

157 CC-218/219 (West)

■ ✪ Statistical Methods for Next-Generation Sequencing Data—Topic-Contributed

Biometrics Section, ENAR
Organizer(s): Peng Liu, Iowa State University
Chair(s): Dan Nettleton, Iowa State University

10:35 a.m. A Weighted Average Likelihood Ratio Test with Application to RNAseq Data—◆Peng Liu, Iowa State University; Yaqing Si, Iowa State University

10:55 a.m. Isoform Detection from RNA-seq with Restriction Enzyme Fragmentation—◆Naomi S. Altman, Penn State; Qingyu Wang, Penn State; Aleksandra B. Slavkovic, Penn State; Vishesh Karwa, Penn State

11:15 a.m. Bias Correction and Bayesian Analysis of Digital Gene Expression Libraries—◆Russell L. Zaretzki, University of Tennessee; Michael A. Gilchrest, University of Tennessee

11:35 a.m. A Statistical Framework for the Analysis of ChIP-Seq Data—◆Pei Fen Kuan, The University of North Carolina at Chapel Hill

11:55 a.m. Nucleosome Dynamics Defines Transcriptional Enhancers—◆Xiaole Shirley Liu, Dana-Farber Cancer Institute/Harvard School of Public Health

12:15 p.m. Floor Discussion

158 CC-209 (West)

■ Confidentiality and Data Access Issues—Topic-Contributed

Section on Survey Research Methods, Committee on Professional Ethics
Organizer(s): Chris Chapman, Bureau of Labor Statistics
Chair(s): Chris Chapman, Bureau of Labor Statistics

10:35 a.m. A New Approach to Protect Confidentiality for Census Microdata with Missing Values—◆Yajuan Si, Duke University; Jerome P. Reiter, Duke University

10:55 a.m. Procedures to Reduce the Risk of Disclosure in Health Surveys—◆Meena Khare, National Center for Health Statistics; Joe Fred Gonzalez Jr., National Center for Health Statistics; Peter Meyer, National Center for Health Statistics

11:15 a.m. Disclosure Avoidance for Census 2010 and American Community Survey Five-Year Tabular Data Products—◆Laura Zayatz, U.S. Census Bureau; Paul Massell, U.S. Census Bureau; Jason Lucero, U.S. Census Bureau; Asoka Ramanayake, U.S. Census Bureau

11:35 a.m. (In)Effectiveness of Independent Rounding of Discrete Tabular Data as Statistical Disclosure Control Strategy—◆Ramesh A. Dandekar, Energy Information Administration

11:55 a.m. Data Access and Confidentiality Policies of the National Children's Study—◆Jennifer Park, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Paymon Hashemi, Eunice Kennedy Shriver National Institute of Child Health and Human Development

12:15 p.m. Floor Discussion

159 CC-222 (West)

✪ Approaches for Creating Weights for Merged Cell Phone Sample Frames with Traditional Landline Frames for Telephone Surveys—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics
Organizer(s): Michael Davern, NORC
Chair(s): Michael Davern, NORC

10:35 a.m. Comparison of Characteristics of Cell-Only, Cell-Mostly, and Landline Households—◆Wei Zeng, NORC; Benjamin Skalland, NORC; Karen Wooten, National Center for Immunization and Respiratory Diseases; Meena Khare, National Center for Health Statistics

10:55 a.m. Dual-Frame Sample Sizes (RDD and Cell) for Future Minnesota Health Access Surveys—◆Steven Pedlow, NORC; Kanru Xia, NORC; Michael Davern, NORC

11:15 a.m. Dual-Frame Weights (RDD and Cell) for the 2009 Minnesota Health Access Survey—◆Kanru Xia, NORC; Steven Pedlow, NORC; Michael Davern, NORC

11:35 a.m. Modeling Multi-Time-Period State-Level Estimates for Wireless-Only, Wireless-Mostly, Landline-Mostly, and Landline-Only Households—◆Nadarajasundaram Ganesh, NORC; Michael Davern, NORC; Stephen Blumberg, National Center for Health Statistics; Julian Luke, National Center for Health Statistics; Michel Boudreaux, University of Minnesota, SHADAC

11:55 a.m. Floor Discussion

160 CC-10 (East)

■ Section on Statisticians in Defense and National Security: Disease Surveillance—Topic-Contributed

Section on Statistics in Defense and National Security
Organizer(s): Howard Burkom, The Johns Hopkins University
Chair(s): Beth Goodman, Glenelg Country School

10:35 a.m. Using Disease Surveillance Data to Forecast Disease Risk—◆Al Ozonoff, Boston University School of Public Health; Yorghos Tripodis, Boston University; John Brownstein, Children's Hospital Boston

10:55 a.m. A Novel Approach for Evaluating Alerting Methods in Biosurveillance—Jian Xing, CDC; Soyoun Park, SRA International; ◆Howard Burkom, The Johns Hopkins University

11:15 a.m. Using Bayesian Predictive Distributions to Identify Outbreaks of Influenza-Like Illness—◆Owen Devine, CDC; Howard Burkom, The Johns Hopkins University

11:35 a.m. Application of Change Point Analysis on Time Series Data: The BioSense Experience—◆Taha Kass-Hout, CDC; Soyoun Park, SRA International; Roy Xu, SRA International Inc.; Paul McMurray, CDC; Howard Burkom, The Johns Hopkins University

11:55 a.m. Floor Discussion

161 CC-121 (West)

■ Statistical Complexities Arising from Ecological Simplifications: Possible Solutions or Further Complications?—Topic-Contributed

Section on Statistics and the Environment
Organizer(s): Megan Higgs, Montana State University
Chair(s): Mark Delorey, CDC

10:35 a.m. Statistical Challenges in Modeling Wildlife Diseases—◆Jennifer A. Hoeting, Colorado State University; Andrew A. Merton, Colorado State University; Colleen T. Webb, Colorado State University

10:55 a.m. The Complexities of a Multivariate Power Analysis: Possible Finite Solutions to an Infinite Problem—◆Kathryn Mary Irvine, Montana State University; Daniel Sarr, Klamath Network - National Park Service; Eric Dinger, Klamath Network - National Park Service

11:15 a.m. Spatial Multinomial Regression Models for the Analysis of Land Cover Data—◆Jun Zhu, Colorado State University; Chongyang Jin, University of Wisconsin-Madison; Stephan Sain, National Center for Atmospheric Research; Michelle M. Steen-Adams, University of New England

11:35 a.m. Data Augmentation Strategies for the Bayesian Spatial Probit Regression Model—◆Candace Berrett, The Ohio State University; Catherine Calder, The Ohio State University

11:55 a.m. Modeling Categorized and Aggregated Dive Depth Data from Marine Mammals—◆Megan Higgs, Montana State University; Jay Ver Hoef, NOAA

12:15 p.m. Floor Discussion

162 CC-214 (West)

Informing Education Policy Through Statistical Measurement—Topic-Contributed

Social Statistics Section, Section on Government Statistics

Organizer(s): Joseph J. Salvo, New York City Department of City Planning
Chair(s): Robert Parker, Statistical Consultant

10:35 a.m. Do Comparison Group Methods Replicate Experimental Impact Estimates in an Education Setting? A Charter School Evaluation Example—Kenneth Fortson, Mathematica Policy Research, Inc.; ◆Natalya Verbitsky-Savitz, Mathematica Policy Research, Inc.; Philip Gleason, Mathematica Policy Research, Inc.; Emma Ernst, Mathematica Policy Research, Inc.

10:55 a.m. The Occasionally High Type I Error Rate of the Mantel-Haenszel Statistic Used in Detecting Differential Item Functioning and an Empirical Bayes Solution—◆Sandip Sinharay, Educational Testing Service; Neil J. Dorans, Educational Testing Service

11:15 a.m. Identifying Classes and Predictors of Growth Trajectories for Mathematics Achievement—◆Laura A. Hildreth, Iowa State University

11:35 a.m. Multilevel Tobit Analysis of Test-Score Ceiling Effects—◆Yan Yang, Arizona State University

11:55 a.m. In Pursuit of Highly Qualified School Boards: Evidence from a National Survey—◆Mack Shelley, Iowa State University; Dai-Trang Le, Iowa State University

12:15 p.m. Floor Discussion

163 CC-120 (West)

Student Paper Competition: Bayesian Modeling for Longitudinal Data, Propensity Scores, and Predictive Information Criteria—Topic-Contributed

Section on Bayesian Statistical Science

Organizer(s): Alyson Wilson, Iowa State University
Chair(s): Ram C. Tiwari, FDA

10:35 a.m. A New Predictive Information Criterion for Bayesian Models—◆Shouhao Zhou, Columbia University

10:55 a.m. Multilevel Bayesian Models of Zero-Inflated Longitudinal Outcomes and Survival Times in Mesothelioma—◆Laura A. Hatfield, University of Minnesota; Mark E. Boye, Eli Lilly and Company; Michelle Denise Hackshaw, Eli Lilly and Company; Bradley P. Carlin, University of Minnesota

11:15 a.m. A Bayesian Model for Misclassified Binary Outcomes and Correlated Survival Data, with Applications to Breast Cancer—◆Min Yi, The University of Texas Health Science Center at Houston; Sheng Luo, The University of Texas School of Public Health; Xuelin Huang, MD Anderson Cancer Center; Kelly K. Hunt, MD Anderson Cancer Center

11:35 a.m. A Bayesian Shrinkage Model for Incomplete Longitudinal Binary Data with Application to the Breast Cancer Prevention Trial—◆Chenguang Wang, FDA; Michael J. Daniels, University of Florida; Daniel O. Scharfstein, Johns Hopkins Bloomberg School of Public Health; Stephanie R. Land, University of Pittsburgh

11:55 a.m. Bayesian Propensity Score Estimators: Incorporating Uncertainties in Propensity Score into Causal Inference—◆Weihua An, Harvard University

12:15 p.m. Floor Discussion

164 CC-213 (West)

■ ✪ Leaps Tall Buildings with a Single Bound: Are Administrative Records Going to Add Muscle to the Federal Statistical System?—Topic-Contributed

Section on Government Statistics, Social Statistics Section

Organizer(s): Rochelle (Shelly) Wilkie Martinez, Office of Management and Budget
Chair(s): John L. Eltinge, Bureau of Labor Statistics

10:35 a.m. Integrating Administrative Records into the Federal Statistical System 2.0: A Vision Paper—◆Rochelle (Shelly) Wilkie Martinez, Office of Management and Budget

10:55 a.m. Making It Happen on the Ground: Practical Challenges with Administrative Records in the Health Policy Arena—◆Christine S. Cox, National Center for Health Statistics

11:15 a.m. You Want It When?: Addressing Policy and Legal Issues—◆Kathleen M. Styles, U.S. Census Bureau

11:35 a.m. Do Survey and Program Participants Get a Say? Informed Consent Requirements and Practices for Integrating Data—◆Cindy Nickerson, U.S. Department of Agriculture

11:55 a.m. Floor Discussion

165 CC-18 (East)

■ From the Parameter Estimation to Reliability Specification in Some Nonstandard Situations Related to Time-to-Event Modeling—Topic-Contributed

Section on Quality and Productivity, Section on Risk Analysis
Organizer(s): Samiran Ghosh, Indiana University Purdue University
Chair(s): Ranjan Paul, Boeing

10:35 a.m. Comparison of Cure Rate Models in Competing Risks Framework—◆Sanjib Basu, Northern Illinois University; Suchitrita Sarkar, Northern Illinois University

10:55 a.m. Inference for Variable-Stress Experiments—◆Nandini Kannan, The University of Texas at San Antonio

11:15 a.m. Computational Issues in Bayesian Design of Life Tests—◆Refik Soyer, The George Washington University

11:35 a.m. Reliability Models for Single Repairable Systems and Some Nonstandard Inference—◆Ananda Sen, University of Michigan

11:55 a.m. An Imputation-Based Approach for Parameter Estimation in the Presence of Ambiguous Censoring with Application in Industrial Supply Chain—◆Samiran Ghosh, Indiana University Purdue University

12:15 p.m. Floor Discussion

166 CC-207 (West)

✪ Fifty Years of Data and Policy Challenges: The 50th Anniversary of the National Health and Nutrition Examination Survey—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): Lester R. Curtain, CDC
Chair(s): Jennifer Madans, National Center for Health Statistics

10:35 a.m. The Evolution of NHANES Content and Data Collection Methods—◆Vicki L. Burt, CDC/NCHS; Clifford Leroy Johnson, National Center for Health Statistics

10:55 a.m. Policy Impact of NHANES—◆Clifford Leroy Johnson, National Center for Health Statistics; Vicki L. Burt, CDC/NCHS

11:15 a.m. Contributions to Survey Methods—◆Margaret Devers Carroll, National Center for Health Statistics; Lester Randolph Curtin, CDC

11:35 a.m. Beyond a National Study: Moving the NHANES Experience to New Applications—◆Lester Randolph Curtin, CDC

11:55 a.m. Disc: Jeanine Bustros, Statistics Canada

12:15 p.m. Floor Discussion

Topic-Contributed Panels 10:30 a.m.–12:20 p.m.

167 CC-221 (West)

Program Assessment and Accreditation, with Particular Reference to Business Schools—Topic-Contributed

Business and Economic Statistics Section
Organizer(s): J. Keith Ord, Georgetown University
Chair(s): Hyokyoung (Grace) Hong, Baruch College, CUNY

Panelists: ◆J. Keith Ord, Georgetown University
◆Robert Carver, Stonehill College
◆Amy Phelps, Duquesne University

12:05 p.m. Floor Discussion

168 CC-215 (West)

Challenges in Large Sections: GAISE-ing Toward Solutions—Topic-Contributed

Section on Statistical Education
Organizer(s): Kim Gilbert, The University of Georgia
Chair(s): Christine Franklin, The University of Georgia

Panelists: ◆Kim Gilbert, The University of Georgia
◆Patti B. Collings, Brigham Young University
◆Rob Gould, University of California, Los Angeles
◆Jennifer Kaplan, Michigan State University
◆W. Robert Stephenson, Iowa State University

12:15 p.m. Floor Discussion

169 CC-224 (West)

■ ✪ What the Federal Statistical System Can Tell Us About the Well-Being of Children—Topic-Contributed

Social Statistics Section, Section on Government Statistics
Organizer(s): William O'Hare, Annie E. Casey Foundation
Chair(s): William O'Hare, Annie E. Casey Foundation

Panelists: ◆Robert Kominski, U.S. Census Bureau
◆Matt Stagner, The University of Chicago
◆Micheal Kogan, Maternal and Child Health Bureau
◆Laura Lippman, Child Trends
◆Donald Hernandez, Hunter College

12:15 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Contributed Sessions 10:30 a.m.–12:20 p.m.

170 CC-203 (West)

■ Random Effects Models for Repeated Measures Data—Contributed

Biometrics Section
Chair(s): Elizabeth Hill, Hollings Cancer Center

10:35 a.m. Regularized REML for Estimation and Selection of Fixed and Random Effects in Linear Mixed-Effects Models—◆Sijian Wang, University of Wisconsin-Madison; Peter Song, University of Michigan; Ji Zhu, University of Michigan

10:50 a.m. Mixed Model of Cross-Sectional and Longitudinal Data with Application to Modeling Cognitive Aging in a Cohort of APOE e4 Carriers and Noncarriers—◆Amylou C. Dueck, Mayo Clinic; Joseph G. Hentz, Mayo Clinic; Brie N. Noble, Mayo Clinic; Eric M. Reiman, Banner Alzheimer's Institute; Richard J. Caselli, Mayo Clinic

11:05 a.m. Modeling Variability in Blood Glucose Data Collected in Continuous Monitoring Using ARIMA and Hierarchical Bayesian MCMC GLMM Models—◆Alex Zolot, StatVis Consulting

11:20 a.m. Marginal Analysis of Longitudinal Count Data from a Teenage Driving Study—◆Zhiwei Zhang, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Paul S. Albert, Eunice Kennedy Shriver National Institute of Child Health and Human Development

11:35 a.m. Testing the Product of Slopes in Related Regressions—◆Christopher H. Morrell, Loyola University Maryland; Veena Shetty, MedStar Research Institute; Terry Phillips, National Institute on Aging; Thiruma Arumugam, National Institute on Aging; Mark Mattson, National Institute on Aging; Ruiqian Wan, National Institute on Aging

11:50 a.m. Longitudinal Models with Penalized Splines and Time-Dependent Covariates—◆Jesse D. Raffa, University of Waterloo; Joel A. Dubin, University of Waterloo

12:05 p.m. Goodness-of-Fit Tests in Generalized Linear Mixed Models—◆Min Tang, University of Maryland; Eric V. Slud, University of Maryland; Ruth Pfeiffer, National Cancer Institute

171 CC-204 (West)

■ Innovative Analysis Strategies in Clinical Trials—Contributed

Biopharmaceutical Section, ENAR
Chair(s): Tammy Massie, FDA/CBER

10:35 a.m. A Practical Way to Standardize Test Scores in Some Clinical Measures—◆Liansheng Zhu, Hoffmann-La Roche

10:50 a.m. Exploratory Longitudinal Graphical Summaries of Concomitant Medication Data—◆Chris Barker, Consultant

11:05 a.m. Balanced and Partially Balanced Incomplete Block Designs with Autocorrelation Errors—◆Xiaohua (Holly) Shu, Temple University; Damaraju Raghavarao, Temple University

11:20 a.m. A Robust-Likelihood Cummulative Sum Chart—◆Youlan Rao, Millennium Pharmaceuticals, Inc.; Steven MacEachern, The Ohio State University; Chunjie Wu, Shanghai University of Finance and Economics

11:35 a.m. Functional Clustering and Outlier Detection for Longitudinal Clinical Trial Data—◆Xiwu Lin, GlaxoSmithKline; Daniel Parks, GlaxoSmithKline; Lei Zhu, GlaxoSmithKline; Jie Cheng, GlaxoSmithKline; Kwan Lee, GlaxoSmithKline

11:50 a.m. Covariate-Adjusted Confidence Intervals for the Mann-Whitney Effect—◆George Luta, Georgetown University; Ionut Bebu, Georgetown University Medical Center

12:05 p.m. Floor Discussion

172 CC-205 (West)

■ Applications of Nonlinear Models and Nonlinear Curve Fitting—Contributed

Biopharmaceutical Section, ENAR
Chair(s): Venkat Sethuraman, Novartis Oncology

10:35 a.m. Identifying Random-Effect Parameters in Nonlinear Mixed-Effect Models by Stepwise Forward Selection—◆Yaming Hang, Merck & Co., Inc.

10:50 a.m. Development and Application of Statistical Analysis for Epitope Mapping—◆Cheng Su, Amgen Inc.; Ning Weng, Amgen Inc.

11:05 a.m. A Switching Markov Chain Monte Carlo (MCMC) Method for Numerical Identifiability of Nonlinear Pharmacokinetics Models—◆Seongho Kim, University of Louisville; Lang Li, Indiana University School of Medicine

11:20 a.m. Predictive Modeling of Weight Loss Curves—◆Shailaja Suryawanshi, Merck & Co., Inc.; Kaifeng Lu, Merck & Co., Inc.

Longtime Member Reception

BY INVITATION ONLY

Monday, August 2
6:30 p.m. – 7:30 p.m.
Fairmont Waterfront
Ballroom A

If you joined the ASA 35 or more years ago, the American Statistical Association would like to thank you for your longtime support.

Please join us for a reception in your honor.

Sponsored by the ASA Membership Retention and Recruitment Committee

Special thanks to RTI International for its support of this event.

RTI INTERNATIONAL

11:35 a.m. Improving Monte Carlo Analyses in Nonlinear Least Squares Regression—◆Leonid Khinkis, Canisius College; Milburn Crotzer, Canisius College

11:50 a.m. Floor Discussion

173 CC-208 (West)

✪ Model Selection—Contributed

Business and Economic Statistics Section
Chair(s): Gray Calhoun, Iowa State University

10:35 a.m. Empirical Model Selection: Friedman and Schwartz Revisited—◆Neil R. Ericsson, Federal Reserve Board

10:50 a.m. Automatic Diagnostic Checking for Vector Autoregressions—◆Ignacio Lobato, ITAM; Juan Carlos Escanciano, Indiana University; Lin Zhu, Indiana University

11:05 a.m. Doubly Constrained Factor Models: Estimation and Applications—◆Henghsiu Tsai, Academia Sinica; Ruey S. Tsay, The University of Chicago

11:20 a.m. More on Arc Length Tests for Equivalent Autocovariances—◆Oscar Ferebee Tunno, Arkansas State University; Colin Gallagher, Clemson University; Robert Lund, Clemson University

11:35 a.m. Mixed Proportional Hazard Models with Continuous Finite Mixture Unobserved Heterogeneity—◆Marcel Cristian Voia, Carleton University; Kim P. Huynh, Indiana University

11:50 a.m. A Large Sample Procedure for Selecting a Subset Containing the Best of Several Multinomial Populations—◆Saad T. Bakir, Alabama State University

12:05 p.m. Interaction Detection for Business Forecasting—◆Dan Steinberg, Salford Systems

174 CC-302/303 (West)

✪ Finance-Empirical—Contributed

Business and Economic Statistics Section
Chair(s): Hedibert Freitas Lopes, The University of Chicago Booth School of Business

10:35 a.m. Modeling Bond-Trading Behavior Using a Zero-Inflated Multivariate Poisson—◆Bonnie Kathryn Ray, IBM T.J. Watson Research Center; Sarah Thomas, Rice University; Katherine Bennett Ensor, Rice University

10:50 a.m. Dependence Evolution in International Equity Markets—◆Tatsuyoshi Okimoto, Hitotsubashi University

11:05 a.m. A New Estimation Method of GO-GARCH Models—◆Lingyu Zheng, Temple University; William Wei, Temple University

11:20 a.m. Dynamic Correlation Structures in Factor Multivariate Stochastic Volatility Models—◆Yu-Cheng Ku, North Carolina State University; Peter Bloomfield, North Carolina State University

11:35 a.m. Determination of Cointegration Rank in High-Dimensional Systems: Evidence from the World's Major Stock Markets—◆Alireza Tahai, Mississippi State University

11:50 a.m. First Significant Digit Distributions in the Credit Crisis—◆Paul Hofmarcher, WU Wien; Florian Löcker, Institute for Statistics and Mathematics

12:05 p.m. Credit Rating Dynamics in the Presence of Structural Breaks—Haipeng Xing, State University of New York at Stony Brook; ◆Ning Sun, State University of New York at Stony Brook; Ying Chen, MEAG New York

175 CC-217 (West)

■ ✪ Data Analysis with Longitudinal or Repeated Measurements—Contributed

ENAR

Chair(s): Yong Zhang, University of Michigan

10:35 a.m. Analysis of Discrete Longitudinal Data Using Weighted Pseudo-Likelihood Method—◆Abdus Sattar Sattar, Case Western Reserve University

10:50 a.m. Extension of Max-Id Copula to Longitudinal Couple-Based Binary Data—◆Seunghee Baek, University of Pennsylvania

11:05 a.m. ML Approach for Analysis of the Longitudinal Binary Data—◆Matthew Guerra, University of Pennsylvania; Justine Shults, University of Pennsylvania; Thomas R. Ten Have, University of Pennsylvania School of Medicine

11:20 a.m. Analysis of Bivariate Recurrent Event Data with Incomplete Observation Gaps—Yang-Jin Kim, Sookmyung Women's University; ◆EunHee Choi, Yonsei University College of Medicine; Jinheum Kim, Suwon University; Chung Mo Nam, Yonsei University

11:35 a.m. Selection of a Working Correlation Structure in a Pediatric Study of Renal Disease—◆Matthew White, University of Pennsylvania; Justine Shults, University of Pennsylvania; Meena Thayu, The Children's Hospital of Philadelphia; Michelle Denburg, The Children's Hospital of Philadelphia; Mary Leonard, The Children's Hospital of Philadelphia

11:50 a.m. Confidence Interval Based on Central Limit Theorem for Correlated Binary Observations—◆Jongphil Kim, Moffitt Cancer Center & Research Institute; Ji-Hyun Lee, Moffitt Cancer Center & Research Institute

12:05 p.m. Floor Discussion

176 CC-15 (East)

Time Series and Functional Data Analysis—Contributed

IMS

Chair(s): Kimihiro Noguchi, University of California, Davis

10:35 a.m. Second-Order Inference for Nonstationary Time Series—◆Han Xiao, The University of Chicago; Weibiao Wu, The University of Chicago

10:50 a.m. Statistical Inference for the Probabilistic Spectral Density—◆Junbum Lee, Texas A&M University

11:05 a.m. Invariance Principles for Some FARIMA and Nonstationary Linear Processes in the Domain of a Stable Distribution—◆William Peter McCormick, The University of Georgia

11:20 a.m. Analysis of Multiple Random Functions via Dynamic Constraints—◆Jeng-Min Chiou, Academia Sinica; Hans-Georg Mueller, University of California, Davis

11:35 a.m. On Estimating the Parameters in Conditional Heteroskedasticity Models by Empirical Likelihood Estimation—◆Tsung-Lin Cheng, National Changhua University of Education

11:50 a.m. Sample Surface Properties and Equivalence of Space-Time Gaussian Random Fields—◆Yun Xue, Michigan State University

12:05 p.m. Floor Discussion

177 CC-14 (East)

■ ✪ Statistical Inference—Contributed

IMS

Chair(s): Mike Baiocchi, University of Pennsylvania

10:35 a.m. Generalized Fiducial Inference for Mixed Linear Models—◆Jessi Cisewski, The University of North Carolina at Chapel Hill; Jan Hannig, The University of North Carolina at Chapel Hill

10:50 a.m. Performing Hypothesis Tests with Multiply Imputed Data—◆Xianchao Xie, Harvard University; Xiao-Li Meng, Harvard University

11:05 a.m. Statistical Theory Using Computer-Aided Reasoning—◆Leif Johnson, University of Minnesota

11:20 a.m. Estimation and Hypothesis Testing in Submodels Using Fisher Estimating Functions—◆Ryan Janicki, U.S. Census Bureau

11:35 a.m. Preliminary Test Estimation Procedures in Nonlinear Regression Models with Toxicological Application—◆Changwon Lim, National Institute of Environmental Health Sciences; Pranab Kumar Sen, The University of North Carolina at Chapel Hill; Shyamal D. Peddada, National Institute of Environmental Health Sciences

11:50 a.m. Composite Likelihood-Based Inferences on Genetic Data from Dependent Loci—◆Arindam RoyChoudhury, Columbia University

12:05 p.m. A Comparison of Confidence Interval Method and Hypothesis Testing for Testing Two-Sample Proportions—◆Yi Ma, Quintiles

178 CC-9 (East)

Analysis and Design of Biostatistical and Clinical Studies—Contributed

International Chinese Statistical Association

Chair(s): Yue Selena Niu, The University of Arizona

10:35 a.m. Assessment of Treatment Effect When Data Are Skewed and with Many Zeros—◆Yue Wang, Astellas Pharma US

10:50 a.m. Unsupervised MR Brain Images Segmentation Using Fuzzy C-Means Based on Fuzzy Sufficient Dimension Reduction—◆Han-Ming Wu, Tamkang University

11:05 a.m. Exact D-Optimal Designs for Linear Log Contrast Models—◆Mong-Na Lo Huang, National Sun Yat-sen University; Miao-Kuan Huang, National Formosa University; Baisuo Jin, University of Science and Technology of China

11:20 a.m. Prediction Intervals for Discrete Random Variables—◆Hsiuying Wang, National Chiao Tung University

11:35 a.m. Floor Discussion

179 CC-122 (West)

■ Gaussian Process Models, Computer Experiments, Differential Equation Models, and Subsurface Inversion—Contributed

Section on Bayesian Statistical Science
Chair(s): Zhigen Zhao, Temple University

10:35 a.m. Adaptive Bayesian Calibration of Computer Models Using Sequential Monte Carlo—◆Gardar Johannesson, Lawrence Livermore National Laboratory

10:50 a.m. Multivariate Spatial Factor Analysis Using Gaussian Predictive Processes—◆Qian Ren, University of Minnesota; Sudipto Banerjee, University of Minnesota

11:05 a.m. Adaptive Gaussian Predictive Process Model for Large Spatial Data Sets—◆Rajarshi Guhaniyogi, University of Minnesota; Andrew Finley, Michigan State University; Sudipto Banerjee, University of Minnesota; Alan E. Gelfand, Duke University

11:20 a.m. Estimation of Faraday Rotation Measures of the Near Galactic Sky Using a Nonstationary Gaussian Process Model—◆Margaret Short, University of Alaska, Fairbanks; Philipp P. Kronberg, Los Alamos National Laboratory; Dave Higdon, Los Alamos National Laboratory

11:35 a.m. Nonstationary Gaussian Process Models via Treed Process-Convolutions—◆Waley Liang, University of California, Santa Cruz

11:50 a.m. Bayesian Hierarchical Modeling for Subsurface Inversion Using Discrete Cosine Parameterization and Two-Stage Reversible Jump Markov Chain Monte Carlo Algorithm—◆Anirban Mondal, Texas A&M University; Jiang Xie, Texas A&M University; Bani K. Mallick, Texas A&M University

12:05 p.m. Parameter Estimation for Differential Equation Models: A Bayesian Approach—◆Kashyap Gupta, Texas A&M University; Bani K. Mallick, Texas A&M University

180 CC-114/115 (West)

■ ✪ Finalists of Section on Nonparametrics Student Paper Competition—Contributed

Section on Nonparametric Statistics
Chair(s): Yolanda Munoz-Maldonado, Michigan Technological University

10:35 a.m. Nonparametric Weighted Log-Rank Tests for Comparing Multivariate Distributions—◆Xiaoru Wu, Columbia University; Zhiliang Ying, Columbia University; Tian Zheng, Columbia University

10:50 a.m. Censored Empirical Likelihood with Overdetermined Hazard-Type Constraints—◆Yanling Hu, University of Kentucky; Mai Zhou, University of Kentucky

11:05 a.m. A Two-Stage Hybrid Procedure for Estimating an Inverse Regression Function—◆Runlong Tang, University of Michigan; Moulinath Banerjee, University of Michigan; George Michailidis, University of Michigan

11:20 a.m. Penalized Likelihood-Tuned Density Estimator—◆Yeojin Chung, Penn State; Bruce G. Lindsay, Penn State

11:35 a.m. A Penalized Empirical Likelihood Method in High Dimensions—◆Subhadeep Mukhopadhyay, Texas A&M University; Soumendra Nath Lahiri, Texas A&M University

11:50 a.m. On the Local and Stratified Likelihood Approaches in Single-Index Hazards Model—◆Kai Ding, The University of North Carolina at Chapel Hill; Michael Kosorok, The University of North Carolina at Chapel Hill; Donglin Zeng, The University of North Carolina at Chapel Hill

12:05 p.m. Floor Discussion

181 CC-17 (East)

■ ✪ Statistical Process Control I—Contributed

Section on Quality and Productivity
Chair(s): Sharad Prabhu, SAS Institute

10:35 a.m. Monitoring Profile Based on a Linear Regression Model with Correlated Errors—◆Tsung-Chi Cheng, National Chengchi University; Su-Fen Yang, National Chengchi University

10:50 a.m. A Study of SPC Under Run-to-Run Feedback Control—◆Shui-Pin Lee, Ching Yun University

11:05 a.m. Stability Analysis of Double Multivariate EWMA Controller Under Dynamic Models—◆Chien-Hua Lin, Providence University; Sheng-Tsaing Tseng, National Tsing-Hua University

11:20 a.m. A Nonparametric EWMA Control Chart for Location Based on the Sign Statistic—◆Marien Alet Graham, University of Pretoria; Schalk William Human, University of Pretoria; Subhabrata Chakraborti, The University of Alabama

11:35 a.m. G-EWMAG Control Chart for High-Quality Processes—◆Chang Wook Kang, Hanyang University; Jae-Won Baik, Hanyang University; Hae-Woon Kang, Hanyang University; Min Song, Hanyang University

11:50 a.m. Bayesian Control Charts for Attributes—◆Natalia Rojas-Perilla, Universidad Nacional de Colombia; Piedad Castro-Torres, Universidad Nacional de Colombia; Jose Alberto Vargas, Universidad Nacional de Colombia

12:05 p.m. Q Charts for the Exponential Distribution—◆Schalk William Human, University of Pretoria; Subhabrata Chakraborti, The University of Alabama

182 CC-16 (East)

Model Selection and Shrinkage—Contributed

Section on Statistical Learning and Data Mining

Chair(s): Giovanni Motta, Maastricht University

10:35 a.m. Logistic Model Selection via Association Rules Analysis—◆Pannapa Changpetch, Penn State; Dennis Lin, Penn State

10:50 a.m. Blockwise Sparse Cox Regression—◆Insuk Sohn, Samsung Medical Center; Jinseog Kim, Dongguk University; Sin-Ho Jung, Duke University; Changyi Park, University of Seoul

11:05 a.m. Variable Selection and Shrinkage via a Conditional Likelihood-Based Penalty—◆Arpita Ghosh, National Cancer Institute; Fred Wright, The University of North Carolina at Chapel Hill; Andrew Nobel, The University of North Carolina at Chapel Hill; Fei Zou, The University of North Carolina at Chapel Hill

11:20 a.m. The MNet Estimator—◆Patrick Breheny, University of Kentucky; Jian Huang, The University of Iowa; Shuangge Ma, Yale University; Cun-Hui Zhang, Rutgers University

11:35 a.m. Estimating the Number of Null Hypotheses in Multiple Testing—◆Vasyl Pihur, ASA

11:50 a.m. Quantile Regression at Optimal Location and Its Applications—◆Yuan Liu, Emory University; Matteo Bottai, University of South Carolina

12:05 p.m. Floor Discussion

183 CC-119 (West)

Sampling and Modeling Environmental Spatial Data—Contributed

Section on Statistics and the Environment

Chair(s): Brian Reich, North Carolina State University

10:35 a.m. Spatial Statistical Data Fusion for Remote-Sensing Applications—◆Hai M. Nguyen, Jet Propulsion Lab; Amy Braverman, Jet Propulsion Lab; Noel A. Cressie, The Ohio State University

10:50 a.m. Geostatistical Model Averaging—◆Chun-Shu Chen, National Changhua University of Education; Hsin-Cheng Huang, Academia Sinica

11:05 a.m. Scaling Local Tree Mortality Models to a Regional Scale Using Combined Estimators and a Meta-Regression Approach—◆Suborna Ahmed, The University of British Columbia; Valerie LeMay, The University of British Columbia

11:20 a.m. Spatial Multivariate Design in the Plane—◆Jie Li, Eli Lilly and Company; Dale Zimmerman, The University of Iowa

11:35 a.m. Simplifying Objective Functions and Avoiding Stochastic Search Algorithms in Spatial Sampling Design—◆Gunter Spöck, University Klagenfurt; Jürgen Pilz, University Klagenfurt; Zhengyuan Zhu, Iowa State University

11:50 a.m. Spatial Model Selection—◆Ciro Velasco-Cruz, Virginia Tech

12:05 p.m. Floor Discussion

184 CC-206 (West)

Survival Analysis—Contributed

Section on Statistics in Epidemiology

Chair(s): Stefan Boehringer, Leiden University Medical Center

10:35 a.m. Landmark Prediction of Survival—◆Layla Parast, Harvard University; Tianxi Cai, Harvard School of Public Health

10:50 a.m. Nonparametric Method of Mixture Model with Prevalent Sampling—◆Yu-Jen Cheng, National Tsing-Hua University; Mei-Cheng Wang, The Johns Hopkins University

11:05 a.m. Comparing the Cumulative False-Positive Risk of Screening Mammography Programs Using a Discrete Time Survival Model Allowing for Nonignorable Drop-Out—◆Rebecca Hubbard, Group Health Research Institute; Diana Miglioretti, Group Health Research Institute

11:20 a.m. Semiparametric Regression Inference for Tumor Progression in Cancer Studies—◆Chen Hu, University of Michigan; Alexander Tsodikov, University of Michigan

11:35 a.m. Misclassification of Current Status Data—◆Karen McKeown, University of California, Berkeley; Nicholas Jewell, University of California, Berkeley

11:50 a.m. Survival Analysis with Error-Prone Time-Varying Covariates: A Risk Set Calibration Approach—◆Xiaomei Liao, Harvard University; David M. Zucker, Hebrew University; Yi Li, Harvard University/Dana-Farber Cancer Institute; Donna Spiegelman, Harvard University

12:05 p.m. Improved Survival Modeling Using a Reduced Piecewise Exponential Approach—◆Gang Han, Moffitt Cancer Center & Research Institute; Michael J. Schell, Moffitt Cancer Center; Jongphil Kim, Moffitt Cancer Center & Research Institute

185 CC-223 (West)

■ Issues in Data Collection and Processing: Listing, Interviewing, and Interviewer Training—Contributed

Section on Survey Research Methods, Section on Government Statistics
Chair(s): Jeri Mulrow, National Science Foundation

10:35 a.m. Evaluation of the Innovations Implemented in the 2009 Canadian Census Test—◆Jean-Francois Rodrigue, Statistics Canada; Danielle Lebrasseur, Statistics Canada; Jennifer Taylor, Statistics Canada; Jean-Pierre Morin, Statistics Canada

10:50 a.m. GIS for Automated Case and Segment Assignment for In-Person Studies—◆Michael Latterner, NORC; Ned English, NORC

11:05 a.m. What Can 179 Million Phone Calls Indicate About the Possibilities for the Future of Telephone Data Collection?—◆Daniel Evan Williams, Western Wats; Edward Paul Johnson, Opinion Outpost

11:20 a.m. Characteristics of Falsified Interviews—Chrishelle Lawrence, U.S. Census Bureau; ◆Elizabeth Love, U.S. Census Bureau

11:35 a.m. Minimizing Survey Error Through Interviewer Training: New Procedures Applied to the National Health Interview Survey—◆James M. Dahlhamer, National Center for Health Statistics; Marcie L.. Cynamon, National Center for Health Statistics; Jane F. Gentleman, National Center for Health Statistics; Andrea Piani, U.S. Census Bureau; Michael J. Weiler, U.S. Census Bureau

11:50 a.m. Floor Discussion

186 CC-216 (West)

Latent Variable Modeling Using Survey Data: Methods and Application—Contributed

Section on Survey Research Methods, Section on Bayesian Statistical Science
Chair(s): Qixuan Chen, Columbia University

10:35 a.m. Methodological Issues Related to Markov Latent Class Analysis with Complex Survey Data—◆Marcus E. Berzofsky, RTI International; Paul Biemer, RTI International; William D. Kalsbeek, The University of North Carolina at Chapel Hill

10:50 a.m. Incorporating Sampling Designs into a Grade of Membership (GoM) Model—◆Marnie Bertolet, University of Pittsburgh

11:05 a.m. Generalized Structured Component Analysis with Latent Interactions—◆Heungsun Hwang, McGill University; Moon-Ho Ringo Ho, Nanyang Technological University; Jonathan Lee, California State University, Long Beach

11:20 a.m. A Method for Improving List Building: Cluster Profiling—◆William Cecere, National Agricultural Statistics Service; Denise Alexandra Abreu, National Agricultural Statistics Service

11:50 a.m. Floor Discussion

187 CC-201 (West)

■ ✪ Study Design and Analysis of Experiments—Contributed

ENAR
Chair(s): Jessica Amelia Myers, Johns Hopkins Bloomberg School of Public Health

10:35 a.m. Achieving the Benefits of Both an Internal Pilot and Interim Analysis in Small Samples—◆John A. Kairalla, University of Florida; Keith E. Muller, University of Florida; Christopher S. Coffey, The University of Iowa

10:50 a.m. Pitfalls of Simplistic Normalization in Basic Science Experiments—◆Tatsuki Koyama, Vanderbilt University School of Medicine; Zhiguo Zhao, Vanderbilt University School of Medicine; Jeffrey Blume, Vanderbilt University School of Medicine

11:05 a.m. Constrained Randomization Within Group-Randomized Trials: Implications for Comparative Effectiveness Research—◆Paul J. Nietert, Medical University of South Carolina; Ruth G. Jenkins, Medical University of South Carolina; Lynne S. Nemeth, Medical University of South Carolina; Andrea M. Wessell, Medical University of South Carolina; Peter M. Miller, Medical University of South Carolina; Steven M. Ornstein, Medical University of South Carolina

11:20 a.m. Sample Size Requirement in Clustered Matched-Pair Design for Noninferiority Test—◆Jun-mo Nam, National Cancer Institute

11:35 a.m. Designing Noninferiority Study: A New Perspective—◆George Y.H. Chi, Johnson & Johnson; Gang Li, Johnson & Johnson; Qing Liu, Johnson & Johnson

11:50 a.m. Trait Well-Being Predicts Placebo Response in Healthy Controls—◆Hamdan Azhar, University of Michigan; Christian Stohler, University of Maryland; Jon-Kar Zubieta, University of Michigan

12:05 p.m. A Decision-Theoretic Approach for the Covariate-Adjusted Adaptive Randomization in Phase IIB Trials—◆Simon Lunagomez, MD Anderson Cancer Center; J. Jack Lee, MD Anderson Cancer Center

188 CC-116 (West)

Robustness, Two-Sample Problems, and Life Distribution Classes—Contributed

Section on Nonparametric Statistics
Chair(s): Bo Henry Lindqvist, Norwegian University of Science and Technology

10:35 a.m. Probabilistic Index Models: Semiparametric Regression Models for P(Y < Y*)—◆Jan De Neve, Ghent University; Olivier Thas, Ghent University; Lieven Clement, Ghent University; Jean-Pierre Ottoy, Ghent University

10:50 a.m. Order-Restricted Estimation of the New Better Than Used in Expectation and Decreasing Mean Residual Life Functions Under Censoring—◆Ganesh Bahadur Malla, Xavier University; Hari Mukerjee, Wichita State University

11:05 a.m. On mMean Residual Life of the k Out of n System—◆Mohammad Ahsanullah, Rider University

11:20 a.m. Negative Moment Inequalities of Life Distributions with Hypothesis-Testing Applications: DRHR, DRHRS, IMIT, and IMITS Classes—◆Mohammad B. Sepehrifar, The University of Mississippi

11:35 a.m. Robustness of Estimators of Location to Distortion—◆Demetris Athientis, University of Florida; Ronald Randles, University of Florida

11:50 a.m. An Extension of the Wilcoxon Rank-Sum Test for Complex Sample Survey Data—◆Sundareshwaran Natarajan, U.S. Department of Veterans Affairs; Stuart R. Lipsitz, Brigham and Women's Hospital; Debajyoti Sinha, Florida State University; Garrett Fitzmaurice, Harvard Medical School

12:05 p.m. Floor Discussion

Invited Poster Presentations 10:30 a.m.–12:20 p.m.

189 CC-Exhibit Hall A (West)

Invited Poster Oral Presentations—Invited

Biometrics Section, Business and Economic Statistics Section, ENAR, IMS, Section on Bayesian Statistical Science, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences, Section on Statistical Learning and Data Mining, Section on Statistics in Epidemiology, Section on Survey Research Methods, WNAR

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

Biometrics Section

01 Joint Modeling of Epigenetic Data, Transcription Factor Binding Data, and Expression Data—◆Guanghua Xiao, UT Southwestern Medical Center

02 Incorporating Chromosomal Spatial Correlation Through 3D Structures into Microarray Data Analysis—◆Xinlei Wang, Southern Methodist University; Guanghua Xiao, UT Southwestern Medical Center; Arkady Khodursky, University of Minnesota

03 Cancer Marker Identification via Penalized Integrative Analysis—◆Shuangge Ma, Yale University

ENAR

04 Bayesian, Frequentist, or Both? Model-Robust Regression and the 'Sandwich' Estimator—◆Adam A. Szpiro, University of Washington; Kenneth Rice, University of Washington; Thomas Lumley, University of Washington

IMS

05 Analyzing Methods of Imputation—◆Scott Daniel Crawford, Texas A&M University

Section on Bayesian Statistical Science

06 Município-Level Estimates of Child Mortality for Brazil: A New Approach Using Bayesian Statistics—◆Sarah McKinnon, Population Research Center; Joseph E. Potter, Population Research Center

Section on Physical and Engineering Sciences

07 Parallel Statistical Computing: Are We Embracing the Scalable Concurrency Revolution?—◆George Ostrouchov, Oak Ridge National Laboratory

08 Generic Framework for Parallel Statistical Computing—◆Hana Sevcikova, University of Washington

09 Sequential Application of a Third-Order Test Design in Six Dimensions Incorporating an Orthogonality Constraint—◆William Line, DOES Institute; Mike Morton, DOES Institute; Norman Draper, University of Wisconsin-Madison

10 Parallel Implementation of Response Surface Regression on R—◆Hao Yu, The University of Western Ontario

Section on Statistical Learning and Data Mining

11 Mode-Based Clustering with Applications to Information Visualization—◆Jia Li, Penn State; Xiaolong Zhang, Penn State

12 A Comparative Study of Variable Screening Methods: Univariate vs. Multivariate Screening—◆Cong Liu, The Ohio State University; Tao Shi, The Ohio State University; Yoonkyung Lee, The Ohio State University

13 Efficient Classification for Longitudinal Data—◆Xianlong Wang, Fred Hutchinson Cancer Research Center; Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

14 Adaptive Confidence Intervals for the Test Error in Classification—◆Eric B. Laber, University of Michigan

15 Energy Functions for Dimension Reduction and Graph Visualization—◆Lisha Chen, Yale University

16 Grouping Pursuit and Feature Selection Over a Graph—◆Yunzhang Zhu, University of Minnesota; Xiaotong Shen, University of Minnesota

17 Classfication Using Matrix Predictors with Application in Toxicant Identification—◆Wenxuan Zhong, University of Illinois

Section on Statistics in Epidemiology

18 ROC Regression Using Percentile Values for Event Time Outcomes—◆Yuying Jin, University of Washington; Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center; Yingye Zheng, Fred Hutchinson Cancer Research Center

19 Hill's Matrix Augments the Barell Matrix for Identifying Knee Injuries in Active Duty U.S. Army—◆Craig James McKinnon, United States Army Research Institute of Environmental Medicine; Owen Hill, United States Army Research Institute of Environmental Medicine; Ashley Kay, United States Army Research Institute of Environmental Medicine; Monika Wahi, United States Army Research Institute of Environmental Medicine

Section on Survey Research Methods

20 Estimating Network Structure Using Latent Space Models for Aggregated Relational Data—◆Tyler McCormick, Columbia University; Tian Zheng, Columbia University

WNAR

21 Development of Imaging Biomarkers for Clinical Trials: Applications in Glioblastoma Multiforme—◆Hyun (Grace) Kim, University of California, Los Angeles; Jing Huo, University of California, Los Angeles; Matt Brown, University of California, Los Angeles; Jonathan Goldin, University of California, Los Angeles

22 Development of Imaging Biomarkers for Clinical Trials: Applications in Rheumatoid Arthritis—◆Grace S. Park, Amgen Inc.

23 Improving Clinical Utility of Physiologic MRI—◆John Kornak, University of California, San Francisco; Karl Young, University of California, San Francisco; Ying Lu, Stanford University; Norbert Schuff, University of California, San Francisco; Jeff Kasten, University of California, San Francisco; Mike Weiner, University of California, San Francisco

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

190 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Government Statistics—Contributed

Section on Government Statistics

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

24 Confidence Intervals for Percentiles Based on Complex Survey Data: Empirical Comparison of Alternative Estimates—◆Henry Haifeng Xia, National Center for Health Statistics; Deborah D. Ingram, National Center for Health Statistics; Lester Randolph Curtin, CDC

25 Using Establishment Characteristics to Predict Respondent Mode Preferences in the Occupational Employment Statistics Survey—◆Carrie K. Jones, Bureau of Labor Statistics

26 Decision-Tree Models for Survey Nonresponse—◆Amanda K. McCracken, The University of Alabama

27 Comparison of Two Methods of Population Projection for Small Areas—◆Ronald Herrera, Universidad Nacional de Colombia

28 Estimating Average Annual Percent Change in Trend Analysis—◆Lin Clegg, Department of Veterans Affairs; Ram C. Tiwari, FDA; Rocky Feuer, National Cancer Institute; Brenda Edwards, National Cancer Institute

29 Modernizing a Survey: A Case Study with the Census of Finance Companies—◆Lisa Chen, Federal Reserve Board

191 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Survey Research Methods—Contributed

Section on Survey Research Methods

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

30 Using an Action-Research Model to Move from Conversational to Hybrid Standardized Interviewing: A Case Study—◆William Mockovak, Bureau of Labor Statistics

31 Using the RDC to Analyze Genetic Data—◆Karen Davis, National Center for Health Statistics; Peter Meyer, National Center for Health Statistics

32 Reliability of Relative Standard Errors Computed from NHDS Public Use Data Files—◆Bill Cai, National Center for Health Statistics; Iris Shimizu, National Center for Health Statistics

33 Erosion Prediction with USLE and RUSLE2—◆Yang Li, Iowa State University

34 Methodology Used for Measuring Use of Electronic Medical Records in Physician Practices in 2008 and 2009 NAMCS—◆Iris Shimizu, National Center for Health Statistics

35 Equivalence of Conditional Logistic Regression and Ordinary Logistic Regression via Infinite Replication of Observations—◆Zhulin He, University of Florida; Babette Brumback, University of Florida

36 Time Series Analyses of Price Indices—◆MoonJung Cho, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics; Patrick A. Bobbitt, Bureau of Labor Statistics; Eungchun Cho, Kentucky State University

37 Application of a Fay-Modified Balanced Repeated Replication Method to the National Health Interview Survey (NHIS)—◆Van Parsons, National Center for Health Statistics

38 The Impact of Small Cluster Size on Multilevel Models: A Monte Carlo Examination of Two-Level Models with Binary and Continuous Predictors—◆Bethany A. Bell, University of South Carolina; Grant B. Morgan, University of South Carolina; Jeffrey D. Kromrey, University of South Florida; John M. Ferron, University of South Florida

39 A Simulation to Evaluate the Impact of Design on Model-Based Methods for National Health and Nutrition Examination Survey (NHANES) Data Linked with Environmental Exposures—◆Jennifer Parker, National Center for Health Statistics; Lester Randolph Curtin, CDC; Van Parsons, National Center for Health Statistics

40 Spline Models for the Population Total from PPS Samples: The Precision Gain from Knowing the Sizes of Nonsampled Units—◆Sahar Z. Zangeneh, University of Michigan; Roderick Joseph Little, University of Michigan

41 How Does Unusual Local Weather Affect Public Opinion About Climate Change?—◆Bin Liu, Iowa State University

42 Effective Sampling Methodology for Program Evaluation in Developing Countries—◆Dhuly Chowdhury, RTI International; Karol Krotki, RTI International; Lauren Courtney, RTI International

43 Quality of Primary Care and Subsequent Health Care Utilization Among Children with Special Health Care Needs:A Secondary Analysis of the Medical Expenditure Panel Survey—◆Minghua Mei, Baylor College of Medicine/Michael E. DeBakey VA Medical Center; Jean Raphael, Baylor College of Medicine; David Brousseau, Medical College of Wisconsin;Thomas Giordano, Baylor College of Medicine

44 Improving the Propensity Score Equal Frequency Adjustment Estimator Using an Alternative Weight—◆Daniel K.Yang, Oregon State University;Alix I. Gitelman, Oregon State University;Virginia M. Lesser, Oregon State University; David S. Birkes, Oregon State University

45 Characteristics of Sampling Plans for Food Inspection in Japan—◆Yoshiki Tsukakoshi, National Food Research Institute;Takahiro Wawtanabe, National Institute for Health Science

192 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Statistics in Defense and National Security—Contributed

Section on Statistics in Defense and National Security

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

46 A Prescription for Sustainability: Operational Availability—◆Dennis F.X. Mathaisel, Babson College

47 System of Statistical Indicators for the National Defense and Security Sector—◆Jhoner Perdomo, Universidad Central de Venezuela

48 Problems with Null Hypothesis Significance Testing—◆Zhigang Wang, Department of National Defence

193 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Social Statistics Section—Contributed

Social Statistics Section

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

49 A Measurement Error Approach to Assess the Association Between Diet Diversity, Nutrient Intake, and Mean Probability of Adequacy—◆Maria L. Joseph, Iowa State University;Alicia Carriquiry, Iowa State University

50 Measuring the Rectangularization of Survival Functions Using the Gompertz Distribution—◆Peter Oskar Pflaumer,Technical University of Dortmund

51 A Monte Carlo Comparison of Robust MANOVA Test Statistics—◆Holmes Finch, Ball State University; Brian French,Washington State University

52 Measuring Fractionalization in the United States—◆Jongmook Choe,The University of Texas at Austin

53 Interpreting Adjusted Means in an ANCOVA—Daniel Mundfrom, New Mexico State University; ◆Dennis Clason, New Mexico State University

54 Variable Selection for Propensity Score Models in Multilevel Data—◆Bing Yu, University of Toronto; Guanglei Hong,The University of Chicago

55 Using Imperfect Fidelity Measures to Improve Statistical Inferences About Educational Interventions—◆Xin Sun, Southern Methodist University

56 Validation of a Survey Tool for Assessment of School Health Program in Maine—◆Kelvin Ho, Colby College; Liam M. O'Brien, Colby College

194 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Statistical Society of Canada (SSC)—Contributed

SSC

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

57 Designing Experiments to Asses the Space-Time Dynamics of Plant Diseases—Rob Deardon, University of Guelph; ◆Daria Martchenko, University of Guelph; Paul McNicholas, University of Guelph

58 Estimating the Prediction Error in Microarray Classification: Modifications on the .632+ Bootstrap When n < p—◆Wenyu Jiang, Queen's University; Bingshu E. Chen, Queen's University

59 Sampling Ancestries at a Genomic Location Conditional on Data from Surrounding Genetic Markers—◆Kelly M. Burkett, Simon Fraser University; Brad McNeney, Simon Fraser University; Jinko Graham, Simon Fraser University

60 Robust Inference in Some Multiple Multifactor Dynamical Systems—◆Sévérien Nkurunziza, University of Windsor

61 Applications of the Truncated Robust Distance (TRD) Method on Large Aggregated Clinical Lab Data for Safety Monitoring and Assessment—◆Daniel Parks, GlaxoSmithKline; Xiwu Lin, GlaxoSmithKline; Lei Zhu, GlaxoSmithKline; Jie Cheng, GlaxoSmithKline; Kwan Lee, GlaxoSmithKline

195 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Statistics in Sports—Contributed

Section on Statistics in Sports

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

62 A Closer Look at the Relative Age Effect in the National Hockey League—◆Vittorio Addona, Macalester College; Philip Yates, California State Polytechnic University, Pomona

63 Money Can't Buy You Love (But It Can Buy You Playoff Spots and Championships in Major League Baseball)—◆Jay R. Schaffer, University of Northern Colorado

64 What Makes a Winning Baseball Team?—Daniel Mundfrom, New Mexico State University; ◆Javier Lopez, New Mexico State University; Jay R. Schaffer, University of Northern Colorado

65 Does an MLB Team's Disabled List Influence Their Performance in the Post Season?—I. Elaine Allen, Babson College; ◆Julia E. Seaman, Genentech

66 Analysis of NHL Shot Location Data—◆Michael Schuckers, St. Lawrence University

196 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Statistical Education—Contributed

Section on Statistical Education

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

67 Assessing a Hybrid Introductory Statistics Class—◆Kathy Gray, California State University, Chico

68 A Review of Existing Audience Response Systems (Clicker) Technology for Formative Assessment in Introductory Statistics—Josh Bernhard, Iowa State University; ◆Amy Froelich, Iowa State University; Ulrike Genschel, Iowa State University

69 Bayesian Item Response Model When Performance Is Affected by Test Anxiety—◆Cibele Queiroz Da-Silva, Universidade de Brasilia; Antonio Eduardo Gomes, Universidade de Brasilia

70 Fractal Analysis of Time Series and Distribution Properties of Hurst Exponent—◆Ferry Butar Butar, Sam Houston State University; Malhar Kale, Kaiser Permanente

71 Factorial Invariance of Statistics Anxiety Across Gender and Student Classification—◆Eric Teman, University of Northern Colorado; Susan Hutchinson, University of Northern Colorado

72 Meta-Analyses of Multiple Baseline Time Series Design Intervention Models for Dependent and Independent Series—◆Oluwagbohunmi Adetunji Awosoga, University of Lethbridge; Joseph W. McKean, Western Michigan University; Bradley E. Huitema, Western Michigan University

73 How to Hold a High-School Statistics Competition—◆Rodney Jee, FICO

74 Interchangeability Among Confidence, Prediction, and Tolerance Intervals—◆Harry Yang, MedImmune

75 Classroom Activities for Investigating the Occurrence of Two Unusual Events—Kate Thomas, California State University, Chico; ◆Neil C. Schwertman, California State University, Chico

76 A Continued Effort to Recruit Future Biostatisticians in Arkansas High Schools—◆Page Moore, University of Arkansas for Medical Sciences; Songthip Ounpraseuth, University of Arkansas for Medical Sciences

77 Online Sampling Course Offered at Penn State—◆Mosuk Chow, Penn State

78 GNU PSPP: A Free Clone of SPSS—◆Jason H. Stover, Georgia College & State University

79 Investigative Learning in Elementary Statistics at a Liberal Arts Institution—◆Mary Majerus, Westminster College; Erin Haller Martin, Westminster College

80 Preparing Students for Elementary Statistics—◆Mary Parker, Austin Community College

81 Experts' Perceptions in Linking GAISE Guidelines to the Self-Efficacy to Teach Statistics Instrument—◆Leigh M. Harrell, Virginia Tech; Rebecca L. Pierce, Ball State University; M. Alejandra Sorto, Texas State University; Teri J. Murphy, Northern Kentucky University; Felicity Enders, Mayo Clinic; Lawrence M. Lesser, The University of Texas at El Paso

82 Classroom Derivation and Simulation: An Asymptotic Two-Sample Test for Comparing Population Medians—◆Vadim Y. Bichutskiy, California State University, East Bay; Joshua D. Kerr, California State University, East Bay; Eric A. Suess, California State University, East Bay

83 Computation Plots for Basic Statistics in R—◆Frank J. Matejcik, South Dakota School of Mines & Technology

84 New Professional Science Masters, CSU East Bay MS in Biostatistics—◆Eric A. Suess, California State University, East Bay

85 A Motivating Example for ANOVA Using Candies—◆Todd A. Schwartz, The University of North Carolina at Chapel Hill

86 An Active Approach to Statistical Inference Using Randomiztion Methods—◆Todd Swanson, Hope College; Nathan Tintle, Hope College; Jill VanderStoep, Hope College; Vicki-Lynn Holmes, Hope College; Brooke Quisenberry, Hope College

87 Pedagogical Uses of Camtasia in Statistical Education—◆Carl Walasek, University of the Sciences in Philadelphia; Laura Pontiggia, University of the Sciences in Philadelphia

88 What Do We Know About Why Young Children Are Missed in the Decennial Census?—◆William O'Hare, Annie E. Casey Foundation

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Speaker with Lunch
12:30 p.m.–1:50 p.m.

197 CC-19/20 (East)

Section on Statistics in Sports Speaker with Lunch (fee event)

Section on Statistics in Sports

Organizer(s): Mark Glickman, Boston University/CHQOER

ML10 Bridging Eras in Sports, Revisited—◆C. Shane Reese, Brigham Young University

P.M. Roundtable Discussions
12:30 p.m.–1:50 p.m.

198 CC-Ballroom D (West)

Biopharmaceutical Section (fee event)

Biopharmaceutical Section

Organizer(s): Jeffrey Maca, Novartis Pharmaceuticals Corporation

ML11 Globalization of Biostatistics: The Development Treatments and Preventative Products for Infectious Diseases—◆Tammy Massie, FDA/CBER

ML12 The Interface Between Biostatistics and IT—◆Charles David Kincaid, COMSYS Clinical

ML13 High-Throughput Screening and Data Analysis—◆Xiaohua Douglas Zhang, Merck Research Laboratories

ML14 CRO Statistician Consultant or Independent Statistical Consultant?—◆Nfii Ndikintum, Paragon Biomedical, Inc.

ML15 To Adjust or Not to Adjust?: Simple vs. Adaptive/Forced Randomization—◆Yuko Y. Palesch, Medical University of South Carolina

199 CC-Ballroom D (West)

Business and Economic Statistics Section (fee event)

Business and Economic Statistics Section

Organizer(s): Bonnie Kathryn Ray, IBM T.J. Watson Research Center

ML16 Statisticians in Business: Keys to Success—◆Mary Batcher, Ernst & Young

200 CC-Ballroom D (West)

Section on Bayesian Statistical Science (fee event)

Section on Bayesian Statistical Science, Section on Statistics in Defense and National Security

Organizer(s): Vanja Dukic, The University of Chicago

ML17 Bayesian Modeling for Space-Time Surveillance of Disease—◆Andrew Lawson, Medical University of South Carolina

ML18 Meta-Analysis: Current State, Recent Developments, and Unresolved Problems—◆Dalene Stangl, Duke University

201 CC-Ballroom D (West)

Section on Government Statistics (fee event)

Section on Government Statistics

Organizer(s): Iris Shimizu, National Center for Health Statistics

ML19 The Role of Statistics and the Statistician in Public Health Surveillance—◆Steve Thacker, CDC; Myron Katzoff, CDC

202 CC-Ballroom D (West)

Section on Health Policy Statistics (fee event)

Health Policy Statistics Section

Organizer(s): Recai Yucel, State University of New York at Albany

ML20 Issues of Data Capacity and Statistical Quality to Support Health Care Modeling and Microsimulation Efforts—◆Steven Cohen, AHRQ

203 CC-Ballroom D (West)

Section on Quality and Productivity (fee event)

Section on Quality and Productivity

Organizer(s): Theresa Utlaut, Intel Corporation

ML21 What You Always Wanted to Know About Computer Experiments but Were Afraid to Ask—◆William Notz, The Ohio State University

204 CC-Ballroom D (West)

Section on Risk Analysis (fee event)

Section on Risk Analysis

Organizer(s): Michael E. Tarter, University of California, Berkeley

ML22 The Promise and Challenge of Benefit: Risk Analysis for Medical Products—◆Richard Forshee, FDA

205 CC-Ballroom D (West)
Section on Statistical Consulting (fee event)
Section on Statistical Consulting
Organizer(s): Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center
ML23 Preparation of Statisticians for the Needs of Industry Roundtable—◆Guowen (Gordon) Sun, sanofi-aventis

206 CC-Ballroom D (West)
Section on Statistical Education (fee event)
Section on Statistical Education
Organizer(s): Daniel Theodore Kaplan, Macalester College
ML24 Effective Use of Online Homework/Grading Assessment Systems—◆Michael Posner, Villanova University
ML25 What Is the 'Right' First Course in Statistics for Our Math Majors?—◆Eric Nordmoe, Kalamazoo College
ML26 Writing a Proposal for the National Science Foundation Division of Undergraduate Education—Ginger Holmes Rowell, Middle Tennessee State University; ◆Lee Zia, National Science Foundation

207 CC-Ballroom D (West)
Section on Statistics and the Environment (fee event)
Section on Statistics and the Environment
Organizer(s): Devin Johnson, NOAA
ML27 Comparing Climate Models to Weather Data—◆Peter Guttorp, University of Washington/Norwegian Computing Center

208 CC-Ballroom D (West)
Section on Survey Research Methods (fee event)
Section on Survey Research Methods
Organizer(s): Paul Beatty, National Center for Health Statistics
ML28 Incorporating and Managing Paradata into Survey Operations for Quality Control and Cost Containment—◆Cheryl Landman, U.S. Census Bureau; Andrea Piani, U.S. Census Bureau

209 CC-Ballroom D (West)
Social Statistics Section (fee event)
Social Statistics Section
Organizer(s): Nancy Clusen, Mathematica Policy Research, Inc.
ML29 Measurement Issues and the Gay/Lesbian/Bisexual/Transgender Population—◆Nancy Clusen, Mathematica Policy Research, Inc.

Invited Sessions 2:00 p.m.–3:50 p.m.

210 CC-18 (East)
■ ✪ Model Diagnostics—Invited
Section on Nonparametric Statistics, IMS, WNAR
Organizer(s): Hira L. Koul, Michigan State University
Chair(s): Hira L. Koul, Michigan State University

2:05 p.m. Diversity in a Sample and Large Number of Small Probabilities: The Case of Questionnaires—◆Estate V. Khmaladze, Victoria University of Wellington
2:30 p.m. Model Diagnosis of Mixed Linear Models—◆Winfried Stute, University of Giessen
2:55 p.m. Testing Conditional Monotonicity in the Absence of Smoothness—◆Miguel A. Delgado, Universidad Carlos III de Madrid; Juan Carlos Escanciano, Indiana University
3:20 p.m. Disc: Jeffrey Hart, Texas A&M University
3:40 p.m. Floor Discussion

211 CC-110 (West)
■ ✪ Collaborative Filtering and the Netflix Prize—Invited
Section on Statistical Computing, International Chinese Statistical Association, IMS, Section on Statistical Graphics, Section on Statistics in Defense and National Security, Section for Statistical Programmers and Analysts
Organizer(s): Chris Volinsky, AT&T Labs - Research
Chair(s): Robert Bell, AT&T Labs - Research

2:05 p.m. Spectral Regularization Algorithms for Learning Large Incomplete Matrices—◆Rahul Mazumder, Stanford University; Trevor Hastie, Stanford University; Rob Tibshirani, Stanford University
2:30 p.m. Collaborative Filtering for Web Applications—◆Deepak Agarwal, Yahoo!
2:55 p.m. The Netflix Prize Story: Methods and Madness—◆Chris Volinsky, AT&T Labs - Research; Robert Bell, AT&T Labs - Research
3:20 p.m. Statisticians: 3, Computer Scientists: 35—◆David Purdy, University of California, Berkeley
3:45 p.m. Floor Discussion

212 CC-207 (West)

■ ✪ Advances and Applications in Dynamic Treatment Regimes—Invited

WNAR, Biometrics Section, ENAR
Organizer(s): Erica E.M. Moodie, McGill University
Chair(s): Erica E.M. Moodie, McGill University

2:05 p.m. Estimating Optimal Dynamic Treatment Regimes with Shared Decision Rules Across Stages: An Extension of Q-learning—◆Bibhas Chakraborty, Columbia University; Erica E.M. Moodie, McGill University

2:30 p.m. Survival Analysis in Two-Stage Randomization Designs—◆Xiang Guo, sanofi-aventis (China); Anastasios Tsiatis, North Carolina State University

2:55 p.m. Causal Inference for the Comparison of Dynamic Treatment Regimens—◆Cecilia Cotton, University of Waterloo; Patrick Heagerty, University of Washington

3:20 p.m. Disc: Mark J. Van der Laan, University of California, Berkeley

3:40 p.m. Floor Discussion

213 CC-Ballroom C (West)

■ ✪ Statistical Challenges in Life and Natural Sciences—Invited

IMS, Biometrics Section, International Chinese Statistical Association, Section on Physical and Engineering Sciences
Organizer(s): Samuel Kou, Harvard University
Chair(s): Samuel Kou, Harvard University

2:05 p.m. Multiple Comparisons in Searching for Local Signals—◆David Siegmund, Stanford University

2:35 p.m. The Use of Reconfigurable Logic for Statistical Inference in Biology—◆Wing Hung Wong, Stanford University

3:05 p.m. Statistical Work in Nano-Material Research—◆C.F. Jeff Wu, Georgia Institute of Technology

3:35 p.m. Floor Discussion

214 CC-212 (West)

Bayesian Methods in Time-Series Econometrics—Invited

Business and Economic Statistics Section, Section on Bayesian Statistical Science
Organizer(s): Scott Holan, University of Missouri
Chair(s): Scott Holan, University of Missouri

2:05 p.m. Optimal Filtering of Jump Diffusions: Extracting Latent States from Asset Prices—◆Jonathan Stroud, The George Washington University; Michael Johannes, Columbia University; Nicholas Polson, The University of Chicago

2:30 p.m. Dynamic Stock Selection Strategies: A Structured Factor Model Framework—◆Hedibert Freitas Lopes, The University of Chicago Booth School of Business; Carlos Marinho Carvalho, The University of Chicago Booth School of Business; Omar Aguilar, Financial Engines

2:55 p.m. Complete and Incomplete Bayesian Models for Financial Time Series—◆John Geweke, University of Technology, Sydney

3:20 p.m. Estimation of the Term Structure from a DSGE Model—◆Siddhartha Chib, Washington University in St. Louis

3:45 p.m. Floor Discussion

215 CC-206 (West)

■ ✪ Machine-Learning Methods in Biomedical Research—Invited

ENAR, Biometrics Section, IMS, International Chinese Statistical Association, WNAR
Organizer(s): Ghosh Debashis, Penn State
Chair(s): Ghosh Debashis, Penn State

2:05 p.m. Kernel-Machine Methods for Gene Mapping of Complex Traits—◆Michael Epstein, Emory University

2:35 p.m. Prediction via Sparse Kernel PCA—◆Tianxi Cai, Harvard School of Public Health

3:05 p.m. Understanding Diffusion of Innovative Treatments for Kidney Cancer Using Trees—◆Mousumi Banerjee, University of Michigan

3:35 p.m. Floor Discussion

216 CC-211 (West)

■ ✪ Statistical Methods for Assessing Generalizability—Invited

Health Policy Statistics Section, Biometrics Section, IMS
Organizer(s): Elizabeth Stuart, Johns Hopkins Bloomberg School of Public Health
Chair(s): Eloise Kaizar, The Ohio State University

2:05 p.m. Generalizing Evidence from Randomized Clinical Trials to Target Populations: The ACTG-320 Trial—◆Elizabeth Stuart, Johns Hopkins Bloomberg School of Public Health; Stephen R. Cole, The University of North Carolina at Chapel Hill

2:30 p.m. Conditional Independence Proofs for Generalizability—◆Sue Marcus, Columbia University

2:55 p.m. Is Generalizability a Misnomer? Not Just Semantics—Herbert Weisberg, Correlation Research, Inc.; ◆Victor P. Pontes, Inatec, Inc.; Stacey A. Missmer, Brigham and Women's Hospital/Harvard Medical School

3:20 p.m. Disc: Naihua Duan, Columbia University

3:40 p.m. Floor Discussion

217 CC-301 (West)

■ ✪ *Statistics in Biopharmaceutical Research*: Application of Biomarkers in Drug Development—Invited

Statistics in Biopharmaceutical Research Journal
Organizer(s): Joseph Heyse, Merck Research Laboratories
Chair(s): Mani Lakshminarajan, Merck Research Laboratories

2:05 p.m. *Statistics in Biopharmaceutical Research*: Application of Biomarkers in Drug Development—◆Aloka Chakravarty, FDA; Mark Rothmann, FDA; Rajeshwari Sridhara, FDA

2:30 p.m. Evaluating Medical Imaging Reader Performance in Clinical Trials—◆David L. Raunig, Pfizer Inc.; Patricia English, Pfizer Inc.

2:55 p.m. Review of Integrative Analysis Challenges in Systems Biology—◆Lei Zhu, GlaxoSmithKline; Kwan Lee, GlaxoSmithKline; Amit Bhattacharyya, GlaxoSmithKline; Edit Kurali, GlaxoSmithKline; Amber Anderson, GlaxoSmithKline

3:20 p.m. Overcoming the Winner's Curse to Identify Biomarkers with Clinical Relevance in Drug Development—◆Lei Shen, Eli Lilly and Company; Haoda Fu, Eli Lilly and Company

3:45 p.m. Floor Discussion

218 CC-201 (West)

Statistical Methods for Tomorrow's Genomic Data—Invited

International Chinese Statistical Association, Biometrics Section, IMS
Organizer(s): Peter Hall, The University of Melbourne
Chair(s): Peter Hall, The University of Melbourne

2:05 p.m. Some Statistical Issues in the Analysis of High-Throughput Sequencing Data—◆Margaret Taub, The Johns Hopkins University

2:35 p.m. Integration of Genomic Data to Infer the Genetic Architecture of Complex Phenotypes—◆Sayan Mukherjee, Duke University; Qing Xiong, Duke University; Terrence Furey, Duke University

3:05 p.m. Whole-Genome Sequence of a Multiplex Lung Cancer Family by Using Next-Generation Sequencer—◆Hsuan-Yu Chen, Academia Sinica; Ker-Chau Li, Academia Sinica; Sung-Liang Yu, National Taiwan University; Jeremy J.W. Chen, National Chung Hsing University; Pan-Chyr Yang, National Taiwan University

3:35 p.m. Floor Discussion

219 CC-205 (West)

■ Modeling Behavioral Data from Smoking Research?—Invited

Society for Research on Nicotine and Tobacco, *CHANCE*
Organizer(s): E. Paul Wileyto, University of Pennsylvania
Chair(s): E. Paul Wileyto, University of Pennsylvania

2:05 p.m. Modeling Mood Variation Associated with Smoking Using a Mixed-Effects Location Scale Model for Analysis of Ecological Momentary Assessment (EMA) Data—◆Donald Hedeker, University of Illinois at Chicago; Robin Mermelstein, University of Illinois at Chicago

2:30 p.m. Prediction of Individual Long-Term Outcomes from a Multivariate Cure-Mixture Frailty Model—Yimei Li, University of Pennsylvania; ◆Daniel F. Heitjan, University of Pennsylvania; E. Paul Wileyto, University of Pennsylvania

2:55 p.m. Modeling Heaping in Self-Reported Longitudinal Cigarette Count Data—◆Hao Wang, The Johns Hopkins University; Daniel F. Heitjan, University of Pennsylvania

3:20 p.m. Selection Biases in Repeated Measures Analysis of Treatment Effects for Recurrent Episodic Conditions—◆Richard J. Cook, University of Waterloo

3:45 p.m. Floor Discussion

Invited Panel 2:00 p.m.–3:50 p.m.

220 CC-118 (West)

■ ✪ Rethinking Our Statistics Courses: What to Let Go of in Order to Grow?—Invited

Section on Statistical Education
Organizer(s): Deborah J. Rumsey, The Ohio State University
Chair(s): Jennifer Kaplan, Michigan State University

Panelists: ◆Deborah J. Rumsey, The Ohio State University
◆Allan Rossman, Cal Poly
◆Beth Chance, Cal Poly
◆Jessica Utts, University of California, Irvine

3:45 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

221 CC-306 (West)

■ ✪ Adaptive Designs in Phase II and Phase III Trials: Current State of the Science—Topic-Contributed

Biopharmaceutical Section, Section for Statistical Programmers and Analysts
Organizer(s): Pilar Lim, Johnson & Johnson
Chair(s): Allan Sampson, University of Pittsburgh

2:05 p.m. Applications of 'Learn' Phase Adaptive Designs—◆Jose Carlos Pinheiro, Johnson & Johnson; Chyi-Hung Hsu, Novartis Pharmaceuticals Corporation

2:25 p.m. Adaptive Sample Size Re-estimation When Interim Results Are Promising—◆Cyrus R. Mehta, Cytel Inc.

2:45 p.m. An Adaptive Noninferiority Study—◆Pilar Lim, Johnson & Johnson; Qing Liu, Johnson & Johnson; Rosanne Lane, Johnson & Johnson; Barry Schwab, Johnson & Johnson; Allan Sampson, University of Pittsburgh

3:05 p.m. Evaluation of Design Parameters for an Adaptive Seamless Phase 2b/3 Trial—◆Susan Y. Zhou, CDER/FDA; Greg Soon, CDER/FDA; Xiao Ding, CDER/FDA; JungYeon Park, CDER/FDA; EunYoung Kim, CDER/FDA; Sue-Jane Wang, FDA

3:25 p.m. Adaptations That Should Not Raise Objections, but Probably Will—◆Michael Proschan, National Institute of Allergy and Infectious Diseases

3:45 p.m. Floor Discussion

222 CC-114/115 (West)

■ ✪ Bayesian Inference in Massive Data Problems—Topic-Contributed

Section on Bayesian Statistical Science, IMS, International Chinese Statistical Association
Organizer(s): Alexandra Schmidt, Universidade Federal do Rio de Janeiro
Chair(s): Marco Ferreira, University of Missouri

2:05 p.m. Bayesian Model Comparison in Cosmology with Population Monte Carlo—◆Christian Plessis Robert, Universite Paris-Dauphine

2:25 p.m. Bayesian Inference for Stereotype Regression—◆Bhramar Mukherjee, University of Michigan

2:45 p.m. Bayesian Models for Genetic Pathways—◆Yuan Ji, MD Anderson Cancer Center

3:05 p.m. Graphically Dependent and Spatially Varying Dirichlet Process Mixtures—◆Long Nguyen, University of Michigan

3:25 p.m. Floor Discussion

223 CC-112 (West)

■ ✪ Joint Modeling of Multiprocess Data—Topic-Contributed

Biometrics Section, IMS
Organizer(s): Lei Liu, University of Virginia
Chair(s): Geert Molenberghs, I-BioStat

2:05 p.m. Predicting Renal Graft Failure Using Multivariate Longitudinal Profiles—◆Geert Verbeke, I-Biostat; Steffen Fieuws, I-BioStat

2:25 p.m. A Joint Longitudinal and Illness-Death Model—◆Elizabeth Renata Brown, University of Washington

2:45 p.m. Fitting High-Dimensional Joint Models for Longitudinal and Time-to-Event Data Using Laplace Approximations—◆Dimitris Rizopoulos, Erasmus University Medical Center

3:05 p.m. Bayesian Joint Model of Multivariate Ordinal Data with Competing Risks Survival Time—◆Pulak Ghosh, Indian Institute of Management, Bangalore

3:25 p.m. Joint Modeling of Survival and Functional Data Association—◆Jimin Ding, Washington University in St. Louis

3:45 p.m. Floor Discussion

224 CC-208 (West)

■ ✪ Statistical Methods in Reproductive and Perinatal Epidemiology—Topic-Contributed

Biometrics Section
Organizer(s): Rajeshwari Sundaram, Eunice Kennedy Shriver National Institute of Child Health and Human Development
Chair(s): Paul S. Albert, Eunice Kennedy Shriver National Institute of Child Health and Human Development

2:05 p.m. A Bayesian Latent Variable Model for Identifying Slow Early Fetal Growth—◆James C. Slaughter, Vanderbilt University; Amy H. Herring, The University of North Carolina at Chapel Hill

2:25 p.m. Bayesian Clustering and Sparse Modeling of Interactions in Epidemiology—◆Amy H. Herring, The University of North Carolina at Chapel Hill; David Dunson, Duke University

2:45 p.m. Design and Analysis of Discrete-Time Survival Studies with Pooled Biomarker Assessment—◆Paramita Saha, National Institute of Environmental Health Sciences; Clarice R. Weinberg, National Institute of Environmental Health Sciences

3:05 p.m. A Joint Model for the Analysis of Multiscale Time to Events and Longitudinal Binary Data—◆Rajeshwari Sundaram, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Alexander Mclain, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Paul S. Albert, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Germaine M. Buck Louis, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Kirsten J. Lum, The Johns Hopkins University

3:25 p.m. Grouped Time-Transformation Model with Sterile Fraction: An Application to Time to Pregnancy—◆Alexander McLain, National Institutes of Health; Rajeshwari Sundaram, Eunice Kennedy Shriver National Institute of Child Health and Human Development

3:45 p.m. Floor Discussion

225 CC-220 (West)

■ Design and Analysis of Bioassay Experiments—Topic-Contributed

Biopharmaceutical Section, WNAR
Organizer(s): Alexander Donev, University of Manchester
Chair(s): Alan Y. Chiang, Eli Lilly and Company

2:05 p.m. Optimal Serial Dilutions Designs for Drug Discovery Experiments—◆Alexander Donev, University of Manchester; Randy Tobias, SAS Institute

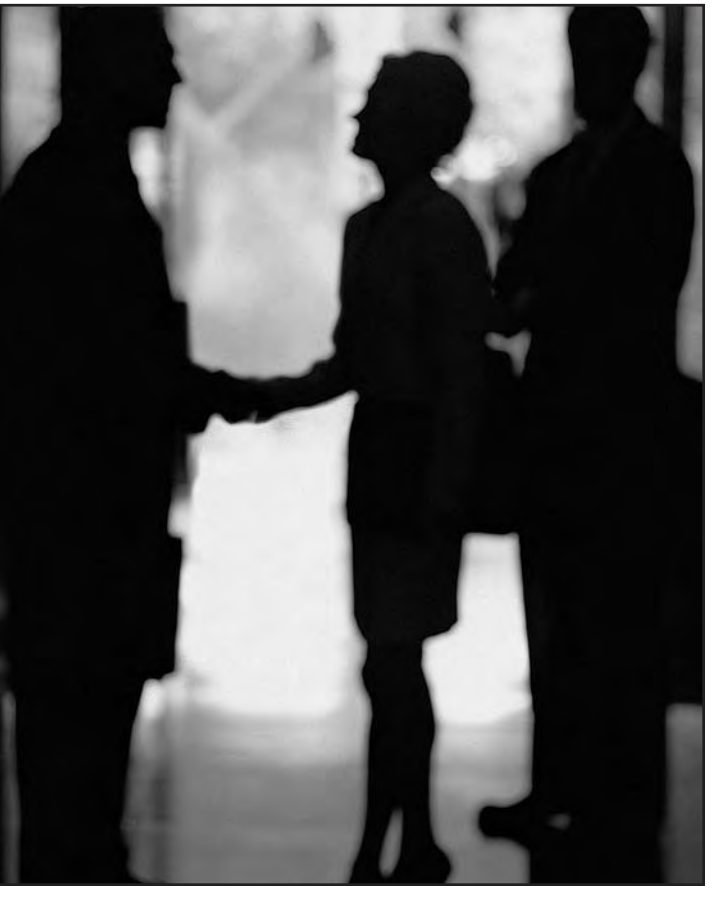
2:25 p.m. Statistical Design for a Small Serial Dilution Series—◆Daniel Zelterman, Yale University

2:45 p.m. Analysis Considerations Related to Parallelism of Bioassay Data—◆Kristi L. Griffiths, Eli Lilly and Company; Bhavin S. Parekh, Eli Lilly and Company

3:05 p.m. Optimal Designs for Low-Dose Linear Extrapolation in Carcinogenesis Experiments—◆Melvin Slaighter Munsaka, Takeda Global Research & Development Center, Inc.

3:25 p.m. Design and Analysis of Bioassay Experiments, Risk Issues—◆Michael E. Tarter, University of California, Berkeley

3:45 p.m. Floor Discussion



226 CC-223 (West)

■ Use of Multiple Testing Procedures in Clinical Trials in Regulatory Applications—Topic-Contributed

Biopharmaceutical Section, IMS
Organizer(s): Steven Bai, FDA
Chair(s): Steven Bai, FDA

2:05 p.m. Method of Balanced Adjustment in Testing Coprimary Endpoints—◆George Kordzakhia, FDA

2:25 p.m. Testing a Primary and a Secondary Endpoint in a Group Sequential Design—◆Ajit C. Tamhane, Northwestern University; Cyrus R. Mehta, Cytel Inc.; Lingyun Liu, Cytel Inc.

2:45 p.m. Partition Testing for Efficacy with Multiple Endpoints, with Software—◆Jason C. Hsu, The Ohio State University; Yi Liu, Millennium Pharmaceuticals, Inc.

3:05 p.m. Choice of Multiple Comparison Procedure in Two Pivotal Clinical Trials for Approval of a New Pharmaceutical Product: Power and Aesthetics—◆Brian L. Wiens, Alcon Laboratories, Inc.; Alex Dmitrienko, Eli Lilly and Company

3:25 p.m. Disc: John Lawrence, FDA

3:45 p.m. Floor Discussion

227 CC-218/219 (West)

■ Statistical Considerations in the Design and Conduct of Medical Device Studies—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Yunling Xu, FDA/CDRH; Joe William Bero, Boston Scientific Corporation
Chair(s): Jianxiong Chu, FDA

2:05 p.m. Adaptive Design for Sample Size Re-estimation in a Medical Device Trial of Spinal Cord Stimulation—◆Nitzan Mekel-Bobrov, Boston Scientific Corporation

2:25 p.m. Sample Size Estimates for Correlated Data in a Device Trial—◆Xiaolong Shih, Boston Scientific Corporation

2:45 p.m. Assessing the Impact of Partial Monitoring on Power Within Clinical Trials—◆Joe William Bero, Boston Scientific Corporation

3:05 p.m. Performance Characteristic of Sequential Probability Ratio Test (SPRT) for Data Monitoring Committee (DMC) Review in Drug-Eluting Stent Clinical Trials—◆Yun Lu, Boston Scientific Corporation; Huyuan Yang, Boston Scientific Corporation

3:25 p.m. Noninferiority Metrics and Labeling Claim: Statistical Considerations for Medical Device Trials from a Regulatory Perspective—◆Yunling Xu, FDA/CDRH; Chul Ahn, FDA/CDRH

3:45 p.m. Floor Discussion

228 CC-215 (West)

✪ Examining Bias in Landline Telephone Surveys—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Michael Davern, NORC
Chair(s): Steven Pedlow, NORC

2:05 p.m. Can Post-Stratification Adjustments Do Enough to Reduce Bias in Telephone Surveys That Do Not Sample Cell Phones? It Depends—◆Kathleen Thiede Call, University of Minnesota, SHADAC; Michael Davern, NORC; Michel Boudreaux, University of Minnesota, SHADAC; Pamela Jo Johnson, Allina Health Systems; Justine Nelson, Minnesota Department of Health

2:25 p.m. Change in Nontelephone Household Measurement by the U.S. Census Bureau and Its Impact on Telephone Surveys Using a Nontelephone Household Post-Stratification Adjustment—◆Michael Davern, NORC; Peter Graven, University of Minnesota; Michel Boudreaux, University of Minnesota, SHADAC; Kathleen Thiede Call, University of Minnesota, SHADAC

2:45 p.m. Comparing Vaccination Estimates from Four Survey Designs: Vaccination Estimates from RDD, RDD+Cell, ABS, and Area Probability Sampling—◆Martin Barron, NORC; Karen Wooten, National Center for Immunization and Respiratory Diseases; Beth Taylor, National Center for Health Statistics

3:05 p.m. Comparison of Influenza Vaccination Rates in Cell-Only, Cell-Mostly, and Landline Households in the National 2009 H1N1 Flu Survey—◆Nicholas Davis, NORC; Kennon R. Copeland, NORC; Margrethe Montgomery, NORC; James A. Singleton, National Center for Immunization and Respiratory Diseases

3:25 p.m. Disc: Peter Miller, Northwestern University

3:45 p.m. Floor Discussion

229 CC-214 (West)

■ Multivariate Imputation for Agricultural Resource Management Survey Data—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Sujit Kumar Ghosh, North Carolina State University
Chair(s): Sujit Kumar Ghosh, North Carolina State University

2:05 p.m. State-of-the-Art Techniques for Missing Data Analysis as Applied to the Agricultural Resource Management Survey—◆Michael Robbins, National Institute of Statistical Sciences

2:25 p.m. An Application and Comparison of Imputation Methods to the Area Resource Management Survey Data—Sujit Kumar Ghosh, North Carolina State University; Barry Goodwin, North Carolina State University; ◆Joshua D. Habiger, National Agricultural Statistics Service/National Institute of Statistical Sciences; Timothy Paul Keller, National Agricultural Statistics Service; Darcy Miller, National Agricultural Statistics Service; Michael Robbins, National Institute of Statistical Sciences; Kirk White, National Agricultural Statistics Service

2:45 p.m. Using Copula Methods to Create Synthetic Data Sets for Agricultural Applications—◆Timothy Paul Keller, National Agricultural Statistics Service; Darcy Miller, National Agricultural Statistics Service

3:05 p.m. Examining the Challenges of Missing Data Analysis in Phase 3 of the Agricultural Resource Management Survey—◆Darcy Miller, National Agricultural Statistics Service

3:25 p.m. Disc: Dale Atkinson, National Agricultural Statistics Service

3:45 p.m. Floor Discussion

230 CC-213 (West)

■ ✪ Innovative Methods for Cost and Cost-Effectiveness Analysis—Topic-Contributed

Health Policy Statistics Section, Biometrics Section
Organizer(s): Douglas E. Schaubel, University of Michigan
Chair(s): Joseph C. Cappelleri, Pfizer Inc.

2:05 p.m. Median-Based Incremental Cost-Effectiveness Ratio (ICER)—◆Heejung Bang, Weill Cornell Medical College; Hongwei Zhao, Texas A&M Health Science Center

2:25 p.m. Confidence Intervals for Median Cost Estimation with Censored Data—◆Hongwei Zhao, Texas A&M Health Science Center; Chen Zuo, Renmin University of China; Heejung Bang, Weill Cornell Medical College

2:45 p.m. Statistical Analyses of Correlated Medical Cost Data—◆Lei Liu, University of Virginia

3:05 p.m. Estimating Lifetime or Episode-of-Illness Costs Under Censoring—◆Anirban Basu, The University of Chicago; Willard G. Manning, The University of Chicago

3:25 p.m. Floor Discussion

231 CC-13 (East)

■ ✪ New Developments in Semiparametric Methods, Functional Data Analysis, and Their Applications—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Yuanjia Wang, Columbia University
Chair(s): Jingchen Liu, Columbia University

2:05 p.m. Cox Regression Model with Time-Varying Coefficients in Nested Case-Control Studies—◆Mengling Liu, New York University School of Medicine; Wenbin Lu, North Carolina State University; Anne Zeleniuch-Jacquotte, New York University School of Medicine; Roy E. Shore, Radiation Effects Research Foundation

2:25 p.m. Functional Latent Feature Models—◆Naisyin Wang, University of Michigan

2:45 p.m. Multilevel Analysis of fMRI Data—◆Vadim Zipunnikov, Johns Hopkins Bloomberg School of Public Health; Brian Scott Caffo, Johns Hopkins Bloomberg School of Public Health; Ciprian Crainiceanu, The Johns Hopkins University

3:05 p.m. Semiparametric Regression Approaches for Longitudinal Genetic Studies—◆Yuanjia Wang, Columbia University

3:25 p.m. Use of Multiple Singular Value Decompositions to Analyze Complex Calcium Ion Signals—◆Josue Guillermo Martinez, Texas A&M University

3:45 p.m. Floor Discussion

232 CC-10 (East)

■ ✪ Non-Normal Repeated Measures and Multivariate Data—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Arne Bathke, University of Kentucky
Chair(s): Denis Larocque, HEC Montreal

2:05 p.m. Nonparametric Multiple Comparison Procedures for Unbalanced Designs—◆Xin Gao, York University

2:25 p.m. The Several Sample Nonparametric Behrens-Fisher Problem—◆Frank Konietschke, Department of Medical Statistics

2:45 p.m. High-Dimensional Repeated Measures Under Non-Normality—◆Edgar Brunner, University of Goettingen; Hans-Joachim Helms, University of Goettingen

3:05 p.m. The Effect of Non-Normality in the Analysis of Repeated Measures Data—◆Solomon W. Harrar, The University of Montana; John Z. Hossler, The University of Montana

3:25 p.m. Disc: Arne Bathke, University of Kentucky

3:45 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Topic-Contributed Panels
2:00 p.m.–3:50 p.m.

233 CC-221 (West)
✪ Recruitment for the Federal Sector—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): Kevin Cecco, Statiscs of Income Division
Chair(s): Nancy M. Gordon, U.S. Census Bureau

Panelists:
◆Kevin Cecco, Statiscs of Income Division
◆Eric Falk, Defense Manpower Data Center
◆Patrick Hayward, U.S. Census Bureau
◆Carrie Hughes-Cromwick, Energy Information Administration
◆Audra Zakzeski, National Agricultural Statistics Service

3:45 p.m. Floor Discussion

234 CC-224 (West)
✪ Federal Statistical Community Collaboration with Academic and Industry Experts—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): Andrew A. White, National Center for Education Statistics
Chair(s): Nell Sedransk, National Institute of Statistical Sciences

Panelists:
◆Mark Harris, National Agricultural Statistics Service
◆Stephen B. Cohen, National Science Foundation
◆Andrew A. White, National Center for Education Statistics
◆Lynda T. Carlson, National Science Foundation

3:45 p.m. Floor Discussion

Contributed Sessions
2:00 p.m.–3:50 p.m.

235 CC-121 (West)
■ ✪ Genetic Association Studies and Family-Based Studies—Contributed

Biometrics Section
Chair(s): Jeanine Houwing-Duistermaat, Leiden University Medical Center

2:05 p.m. Bayesian Meta-Analysis of Genetic Association Studies: Effective Combining Evidence and Efficent Handling Missing Data—◆Xiaoquan Wen, The University of Chicago; Matthew Stephens, The University of Chicago

2:20 p.m. Incorporating Secondary Phenotypes in Case-Control Genetic Association Studies: A Gaussian Copula Approach—◆Jing He, University of Pennsylvania; Muredach Reilly; Daniel Rader, Department of Medicine; Hongzhe Li, University of Pennsylvania; Mingyao Li, University of Pennsylvania

2:35 p.m. Comparison of Methods for g X g Interaction for Quantitative Traits in Case-Control Association Studies—◆Raymond George Hoffmann, Medical College of Wisconsin; Thomas J. Hoffmann, University of California, San Francisco; Pippa Simpson, Medical College of Wisconsin; Soumitra Ghosh, Medical College of Wisconsin

2:50 p.m. Case-Parent Triad Studies of Genetic Association and Gene-Gene Interaction in the Presence of Missing Data—◆Tracy L. Bergemann, University of Minnesota; Matthew Deyo-Svendsen, University of Minnesota

3:05 p.m. Analysis of Gene-Environment Interaction with Family Data: Using Unascertained Samples with Binary Outcome—◆Gourab De, Harvard University; Nan Laird, Harvard University

3:20 p.m. A Review of Statistical Methods for Testing Genetic Anticipation: Looking for an Answer in Lynch Syndrome—◆Philip Boonstra, University of Michigan; Bhramar Mukherjee, University of Michigan; Stephen Gruber, University of Michigan

3:35 p.m. Exact Test of Hardy-Weinberg Equilibrium in Multi-Allelic Case via Markov Base—◆Marepalli B. Rao, University of Cincinnati; Subramaniam Venkatesan, University of Cincinnati; Subramanyam Kasala, University of North Carolina Wilmington

236 CC-216 (West)
■ ✪ Longitudinal Data: Joint Models, Markov Models, Trajectory Modeling—Contributed

Biometrics Section
Chair(s): Eva R. Miller, ICON Clinical Research

2:05 p.m. A Joint Model of Longitudinal Data and Time-to-Event Data with Cure Fraction—◆Ashok Panneerselvam, Case Western Reserve University; Mark Schluchter, Case Western Reserve University

2:20 p.m. Joint Modeling of Primary Outcome and Longitudinal Data Measured at Informative Observation Times—◆Song Yan, North Carolina State University; Daowen Zhang, North Carolina State University; Wenbin Lu, North Carolina State University

2:35 p.m. Estimating a Continuously Observed Semi-Markov Process—◆Amy Laird, University of Washington; Lurdes Inoue, University of Washington

2:50 p.m. Reproducibility of Blood Pressure Profiles—◆Lyndia C. Brumback, University of Washington

3:05 p.m. Multivariate Modeling of a Monotonic Disease Process in Presence of Misclassification—◆Maria Jose Garcia-Zattera, Pontificia Universidad Católica de Chile; Alejandro Jara, Pontificia Universidad Católica de Chile; Emmanuel Lesaffre, Katholieke Universiteit Leuven; Guillermo Marshall, Pontificia Universidad Católica de Chile

3:20 p.m. Joint Modeling of Longitudinal Outcomes and Time-to-Event Data—◆Jia Cao, Columbia University

3:35 p.m. Response-Adaptive Regression for Longitudinal Data—◆Shuang Wu, University of California, Davis

237 CC-120 (West)

■ ✪ Prediction in High-Dimensional Data and Dimension Reduction—Contributed

Biometrics Section
Chair(s): Radoslav Nickolov, Fayetteville State University

2:05 p.m. Modeling with Pairwise Comparisons—◆Jeffrey Leek, Johns Hopkins Bloomberg School of Public Health; Leslie Cope, The Johns Hopkins University; Donald Geman, The Johns Hopkins University; Giovanni Parmigiani, Harvard University

2:20 p.m. PCA Consistency for High-Dimension, Low Sample Size Context—◆Sungkyu Jung, The University of North Carolina at Chapel Hill; J. S. Marron, The University of North Carolina at Chapel Hill

2:35 p.m. Properties of Empirical Bayes Estimators for Evaluating Questionnaire Data in Epidemiology Studies—◆Jaya M. Satagopan, Memorial Sloan-Kettering Cancer Center; Qin Zhou, Memorial Sloan-Kettering Cancer Center; Susan Oliveria, Memorial Sloan-Kettering Cancer Center; Stephen Dusza, Memorial Sloan-Kettering Cancer Center; Martin Weinstock, Brown University; Marianne Berwick, University of New Mexico; Allan Halpern, Memorial Sloan-Kettering Cancer Center

2:50 p.m. Sample Size Consideration on Search for Correlative Models from High-Throughput Screening Data—◆Xian-Jin Xie, The University of Texas Southwestern Medical Center at Dallas; Yijie Liao, Southern Methodist University; Jason Yan, The University of Texas Southwestern Medical Center at Dallas

3:05 p.m. Variable Importance Estimation in a Kaiser Permanente Database—◆Sherri Rose, University of California, Berkeley; Bruce Fireman, Kaiser Permanente; Mark J. Van der Laan, University of California, Berkeley

3:20 p.m. A Covariance Regression Model—◆Xiaoyue Niu, University of Washington; Peter Hoff, University of Washington

3:35 p.m. Floor Discussion

238 CC-302/303 (West)

Biomarkers—Contributed

Biopharmaceutical Section
Chair(s): Neal Thomas, Pfizer Inc.

2:05 p.m. Evaluating Correlation and Some Misuses for Biomarker Qualification Within a Causal Correlation Framework—◆Yue Wang, Merck & Co., Inc.; Robin Mogg, Merck & Co., Inc.; Peter H. Hu, Merck & Co., Inc.; Jared Lunceford, Merck & Co., Inc.; Peggy Wong, Merck Research Laboratories

2:20 p.m. Detecting a Cutoff Point for Predictive Biomarkers in Clinical Trials Using Contrast Tests—◆Jianliang Zhang, MedImmune

2:35 p.m. Using Logistic Model with Measurement Errors in Covariates to Assess Baseline Biomarkers Association with Treatment Response—◆Dion Chen, Centocor R&D, Inc.; Jiandong Lu, Johnson & Johnson

2:50 p.m. An Orthogonal Transformed Aggregation Statistic to Test Gene Regulation with Prespecified Gene Sets or Pathways—◆Shuyan (Sabrina) Wan, Merck Research Laboratories; Nanshi Sha, Columbia University; Peggy Wong, Merck Research Laboratories

3:05 p.m. Use of Receiver Operating Characteristic (ROC) Curves to Evaluate High-Throughput Screening (HTS) Methodologies—◆Satya R. Siddani, Merck & Co., Inc.

3:20 p.m. Issues on Threshold Selection in Predictive Biomarker Analysis—◆Li-an Xu, Bristol-Myers Squibb

3:35 p.m. Dimension Reduction Through Variable Selection: A Fibrosis Case Study—◆Katja Sabine Remlinger, GlaxoSmithKline

239 CC-217 (West)

Meta-Analysis and Analysis of Adverse Events—Contributed

Biopharmaceutical Section, ENAR
Chair(s): Paul Schuette, FDA

2:05 p.m. Bayesian Meta-Analysis of Rare Events Incorporating Historical Controls—◆Yan Zheng, sanofi-aventis; Xin Zhi, sanofi-aventis

2:20 p.m. An Individual-Patient Meta-Analytic Mixed Model with Repeated Measures and Time-Dependent Covariates: An Application to Adverse Event Data—◆Sofia Paul, Novartis Pharmaceuticals Corporation; Stephanie Ann Kovalchik, University of California, Los Angeles; Jing Hu, Novartis Pharmaceuticals Corporation; Glen Laird, Novartis Pharmaceuticals Corporation

2:35 p.m. Method and Application of Meta-Analysis in Cancer Trials—◆Xiaoling Wu, Bristol-Myers Squibb; Joseph Pultz, Bristol-Myers Squibb; Andrew Damokosh, Bristol-Myers Squibb; Thomas Kelleher, Bristol-Myers Squibb

2:50 p.m. Potential Problems with Tian, Cai, Pfeffer, Piankov, Cremieux, and Wei's Exact Stratified Analysis of Rosiglitazone Cardiovascular Deaths—◆Fraser Smith, FDA/CDER

3:05 p.m. Some Design Considerations for Meeting the FDA CV Requirement for New Diabetes Drugs—◆Kaifeng Lu, Merck & Co., Inc.; Danielle Sheng, Merck & Co., Inc.; Bret Musser, Merck Research Laboratories

3:20 p.m. Floor Discussion

240 CC-210 (West)

Trends, Seasonality, and Time Series—Contributed

Business and Economic Statistics Section

Chair(s): Andrew F. Siegel, University of Washington

2:05 p.m. Using X-12-ARIMA to Seasonally Adjust Business Employment Dynamics Data—◆Eric Simants, Bureau of Labor Statistics; David Talan, Bureau of Labor Statistics

2:20 p.m. The Hodrick-Prescott Filter: A Special Case of Penalized Spline Smoothing—◆A. Alexandre Trindade, Texas Tech University; Robert Paige, Missouri University of Science and Technology

2:35 p.m. Extracting U.S. Credit Cycle Using Dynamic Linear Model—◆Jie Chen, Bank of America; Agus Sudjianto, Bank of America

2:50 p.m. Estimation in ARCH Models with Missing Data: Applications to Latin-American Capital Markets—◆Natalia Bahamonde, Pontificia Universidad CatÛlica de Valparaiso

3:05 p.m. Efficient Modeling of the Noise Term in Additive Nonparametric Transfer Function Models—◆Jun Liu, Georgia Southern University

3:20 p.m. GMM and OLS Estimation and Inference for New Keynesian Phillips Curve—◆Hrishikesh (Rick) D. Vinod, Fordham University

3:35 p.m. Constructing Observation Weight Functions for Model-Based Signal Extraction with Regression Effects—◆Siem Jan Koopman, Vrije Universiteit Amsterdam; Marius Ooms, Vrije Universiteit Amsterdam

241 CC-209 (West)

✪ Macroeconomics—Contributed

Business and Economic Statistics Section

Chair(s): Simon Van Norden, HEC Montreal

2:05 p.m. Forecasting Long-Term Trends in Consumer Expenditures—◆David Swanson, Bureau of Labor Statistics

2:20 p.m. Computation of the Stationary Wealth Distribution in a Heterogeneous Agent Based Economy with Employment Uncertainty—◆Muffasir Badshah, Florida State University; Anuj Srivastava, Florida State University; Paul Beaumont, Florida State University

2:35 p.m. Managerial Practices, R&D Activities, and Internationalization Mode in Italian Firms: A Panel Approach—Matilde Bini, European University of Rome; ◆Margherita Velucchi, Università di Firenze; Alessandro Zeli, ISTAT; Leopoldo Nascia, ISTAT

2:50 p.m. GDP, Well-Being, and Quality of Life: A Comparison Between Objective and Subjective Measures in Italy—◆Tiziana Laureti, University of Naples Federico II; Luigi Biggeri, University of Florence

3:05 p.m. Quantitative Methods Used for the Informal Economy Analysis for Countries in Transition—Tudorel Andrei, The Bucharest Academy of Economic Studies; ◆Andreea Iluzia Iacob, The Bucharest Academy of Economic Studies; Bogdan Oancea, "Nicolae Titulescu" University, Bucharest; Marius Profiroiu, The Bucharest Academy of Economic Studies

3:20 p.m. Estimating Armington Elasticity in a CGE Model Framework: A Generalized Maximum Entropy Approach—Guido Ferrari, University of Florence; ◆Luca Secondi, University of Florence

3:35 p.m. Sociosystemics and Its Statistical Aspects—◆Igor Mandel, Telmar Inc.

242 CC-9 (East)

■ ✪ Bayesian Analysis of Genetic and Metabolomic Data—Contributed

Section on Bayesian Statistical Science, Biometrics Section, ENAR
Chair(s): Mark Litaker, The University of Alabama at Birmingham

2:05 p.m. Application of Bayesian Analysis in the Identification of Quantitative Trait Loci (QTL) in Dogs—◆Lan Zhu, Oklahoma State University

2:20 p.m. Bayesian LASSO for Genomewide Association Analysis—◆Jiahan Li, Penn State; Rongling Wu, Penn State

2:35 p.m. Semiparametric Bayesian Analysis of High-Throughput Array CGH Data—◆Subharup Guha, University of Missouri

2:50 p.m. QTL Analysis Using Bayesian Method—◆Reka Howard, Iowa State University; Alicia Carriquiry, Iowa State University; William Beavis, Iowa State University

3:05 p.m. An Empirical Bayes Model for Metabolite Identifications Using Two-Dimensional Gas Chromatography Mass Spectrometry—◆Jaesik Jeong, Indiana University Purdue University Indianapolis; Changyu Shen, Indiana University Purdue University Indianapolis; Xiang Zhang, University of Louisville

3:20 p.m. Floor Discussion

243 CC-222 (West)

■ ✪ Small-Area Estimation and Alternative Sampling Approaches for Survey Research—Contributed

Section on Government Statistics, Social Statistics Section
Chair(s): Rita Petroni, U.S. Census Bureau

2:05 p.m. Bayesian Benchmarking with Applications to Small-Area Estimation—◆Rebecca Carter Steorts, University of Florida; Ghosh Malay, University of Florida; Gauri Datta, The University of Georgia

2:20 p.m. Extended Structure-Preserving Estimation Method for Updating Small-Area Estimates of Poverty—◆Marissa Cinco Isidro, Massey University; Stephen John Haslett, Massey University; Geoffrey Jones, Massey University

2:35 p.m. Stratification of a Sampling Frame with Auxiliary Data into Piecewise Linear Segments by Means of a Genetic Algorithm—◆Joseph James Barth, U.S. Census Bureau; Yang Cheng, U.S. Census Bureau

2:50 p.m. Variance Estimation for the Decision-Based Estimators and Its Application in the Annual Survey of Public Employment and Payroll—◆Yang Cheng, U.S. Census Bureau; Slud Eric, University of Maryland; Carma Hogue, U.S. Census Bureau

3:05 p.m. Alternative Sample Approach for the Annual Survey of Public Employment and Payroll—◆Casey Corcoran, U.S. Census Bureau; Yang Cheng, U.S. Census Bureau

3:20 p.m. Alternatives to Cut-Off Sampling for a Family of Surveys—◆Paula Ellen Mason, Energy Information Administration; Benita Jean O'Colmain, ICF Macro; Pedro Saavedra, ICF Macro; Amerine Woodyard, Energy Information Administration; Bin Zhang, Energy Information Administration

3:35 p.m. Estimating a Misclassification Probability in a Binomial Setting—◆Patrick Lennon Kendall Zimmerman, University of Minnesota, Twin Cities; Greg C. Liknes, U.S. Forest Service

244 CC-14 (East)

Nonparametric Density Estimation—Contributed

Section on Nonparametric Statistics
Chair(s): Wenguang Sun, North Carolina State University

2:05 p.m. High-Dimensional Adaptive Basis Density Estimation—◆Susan Buchman, Carnegie Mellon University; Ann Lee, Carnegie Mellon University; Chad Schafer, Carnegie Mellon University

2:20 p.m. K-Nearest Neighbor Estimator of Inverse-Multivariate-Density-Weighted Expectations for Dependent Data—◆Ba Manh Chu, Carleton University; Kim P. Huynh, Indiana University; David T. Jacho-Chavez, Indiana University

2:35 p.m. A New Likelihood-Based Density Estimation Method—◆Ilya Shvartsman, Penn State Harrisburg

2:50 p.m. Iteratively Reweighted Smoothing Splines—◆Heeyoung Kim, Georgia Institute of Technology; Xiaoming Huo, Georgia Institute of Technology

3:05 p.m. Measures of Goodness of Fit for the Multidimensional Semiparametric Density Ratio Model—◆Anastasia Voulgaraki, University of Maryland; Benjamin Kedem, University of Maryland

3:20 p.m. Boundary Problem in the Kernel Estimation of Probability Distribution Function—◆Shunpu Zhang, National Cancer Institute

3:35 p.m. Floor Discussion

245 CC-15 (East)

Nonparametric Inference for Dispersion—Contributed

Section on Nonparametric Statistics

Chair(s): Jane L. Harvill, Baylor University

2:05 p.m. A New Class of Semiparametric Semvariogram and Nugget Estimators—◆Patrick Carmack, University of Central Arkansas; Jeffrey Spence, The University of Texas Southwestern Medical Center at Dallas; William R. Schucany, Southern Methodist University; Richard Gusnt, Southern Methodist University; Qihua Lin, The University of Texas Southwestern Medical Center at Dallas; Robert Haley, The University of Texas Southwestern Medical Center at Dallas

2:20 p.m. Variance Function Estimator in the Multiple Regression Model—◆Kee-Hoon Kang, Hankuk University of Foreign Studies; Seokoh Jeong, Hankuk University of Foreign Studies

2:35 p.m. Nonparametric Estimation of Innovation Variance: A Case Study on the Wolfer's Sunspot Numbers—◆Priya Kohli, Texas A&M University; Mohsen Pourahmadi, Texas A&M University

2:50 p.m. Varying Coefficient Models with Unknown Link Functions—◆Chinthaka Nilanga Kuruwita, Clemson University; Karunarathna Kulasekera, Clemson University; Colin Gallagher, Clemson University

3:05 p.m. Applications of Assignment Algorithms to Nonparametric Tests for Homogeneity—◆David Michael Ruth, United States Navy; Robert Koyak, Naval Postgraduate School

3:20 p.m. Depth-Based Statistically Equivalent Blocks for Multivariate Two-Sample Problem—◆Reza Modarres, The George Washington University; Zhenyu Liu, The George Washington University

3:35 p.m. Floor Discussion

246 CC-204 (West)

■ ✪ Topics in Statistical Consulting—Contributed

Section on Statistical Consulting

Chair(s): Page Moore, University of Arkansas for Medical Sciences

2:05 p.m. Implementation of a Cost Quotation Tool for Statistical Consulting in an Academic Medical Setting: Preliminary Results—◆Rhonda J. Rosychuk, University of Alberta

2:20 p.m. The History of Statistical Consulting; The Future of Statistical Collaboration—◆Eric Vance, Virginia Tech

2:35 p.m. Guiding Clinicans Through the EffTox Model—◆Meagan E. Spychala, Rho, Inc.

2:50 p.m. Direct Inference Requiring Only a Touch of Bayes—◆Ralph G. O'Brien, Case Western Reserve University

3:05 p.m. A Time-Saving SAS Macro to Facilitate Data Import from Excel—◆Alan C. Elliott, UT Southwestern Medical Center; Linda S. Hynan, UT Southwestern Medical Center

3:20 p.m. The Conduct of Statistical Consulting Sessions Between Statisticians and the Researchers with Whom They Interact—◆H. Dean Johnson, Washington State University

3:35 p.m. Floor Discussion

247 CC-203 (West)

Regression and Modeling: Data Sets, Assumptions, and Applications—Contributed

Section on Statistical Education

Chair(s): Robert Adam Molnar, Bellarmine University

2:05 p.m. Using U.S. Energy Data to Enhance the Teaching of Introductory Statistics—◆Carol Joyce Blumberg, U.S. Energy Information Administration

2:20 p.m. R-Squared and the Law of Diminishing Returns—◆J. B. Orris, Butler University

2:35 p.m. How Effective Are Normality Tests at Detecting Violations of the Least Squares Regression Assumptions?—◆John H. Walker, Cal Poly; Jimmy A. Doi, Cal Poly; Hongyan Wang, Cal Poly

2:50 p.m. Some Determinants of Student Performance in Introductory Statistics—◆Jenting Wang, State University of New York at Oneonta; Shuyi Tu, University of Michigan, Flint

3:05 p.m. Floor Discussion

248 CC-202 (West)

Real-World Data Mining—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Rachel Schutt, Google

2:05 p.m. Falling into the Data Mine: Avoiding the Pitfalls—◆Sam Koslowsky, Harte Hanks, Inc.

2:20 p.m. Prediction of Advertiser Churn for Google AdWords—◆Sangho Yoon, Google; Jim Koehler, Google; Adam Ghobarah, Google

2:35 p.m. LNRE Methods in Estimating Impressions in Search Engine Results—Carrie Grimes, Google; ◆Meeyoung Park, Google

2:50 p.m. Extract Communities from Networks—◆Yunpeng Zhao, University of Michigan; Elizaveta Levina, University of Michigan; Ji Zhu, University of Michigan

3:05 p.m. Credit-Scoring Model for Government Education Loans—◆Nurhamiza Zakaria, Management Science University; Rasimah Aripin, Universiti Teknologi MARA

3:20 p.m. Data Mining Challenges in the Services Industry—◆Krishna Kumaraswamy, PricewaterhouseCoopers LLP; Jafar Adibi, PricewaterhouseCoopers LLP; Rajesh Munavalli, PricewaterhouseCoopers LLP; Jefferson L. DeLisio, PricewaterhouseCoopers LLP; Kamaljeet Kaur, PricewaterhouseCoopers LLP; Mave Houston, PricewaterhouseCoopers LLP; Yen Doan, PricewaterhouseCoopers LLP; Simo Arajarvi, PricewaterhouseCoopers LLP

3:35 p.m. Floor Discussion

249 CC-16 (East)

Computational Issues for Spatial Models—Contributed

Section on Statistics and the Environment, ENAR
Chair(s): Kathryn Mary Irvine, Montana State University

2:05 p.m. Autologistic Models for Binary Data on a Lattice—◆John Hughes, Penn State; Murali Haran, Penn State; Petrutza Caragea, Iowa State University

2:20 p.m. Approximate Bayesian Computing for Spatial Extremes—◆Robert Erhardt, The University of North Carolina at Chapel Hill

2:35 p.m. Generalized Linear Spatial Random Effects Model—◆Aritra Sengupta, The Ohio State University; Noel A. Cressie, The Ohio State University

2:50 p.m. Some Asymptotics for Geostatistical Model Selection—◆Hsin-Cheng Huang, Academia Sinica

3:05 p.m. Generalized Additive Models for Zero-Inflated Data with Partial Constraints—◆Hai Liu, Indiana University School of Medicine; Kung-Sik Chan, The University of Iowa

3:20 p.m. A Geostatistical Approach to Disease Mapping for Aggregated Count Data Using GLMMs—◆Lauren Hund, Harvard University; Brent A. Coull, Harvard School of Public Health

3:35 p.m. Floor Discussion

250 CC-17 (East)

■ Models for Spatial Point Data with Environmental Applications—Contributed

Section on Statistics and the Environment
Chair(s): Lisa Bramer, Iowa State University

2:05 p.m. A Closer Look at Models Developed for Landscape Genetics—◆Kezia Manlove, Montana State University; Megan Higgs, Montana State University

2:20 p.m. Properties and Applications of a Graphical Self-Similarity Test—◆Rakhee Patel, University of California, Los Angeles

2:35 p.m. Methods for Spatially Varying Measurement Error in Air Pollution Epidemiology—◆Stacey E. Alexeeff, Harvard School of Public Health; Alexandros Gryparis, Harvard School of Public Health; Joel Schwartz, Harvard School of Public Health; Brent A. Coull, Harvard School of Public Health

2:50 p.m. Forecasting and Summarizing Wildfire Hazard in California—◆Kevin Edward Nichols, University of California, Los Angeles

3:05 p.m. Evaluation of Space-Time Point Process Models by Combining Thinning and Superposition—◆Alejandro Veen, IBM T.J. Watson Research Center

3:20 p.m. Comparing Space-Time *ETAS* Models with Previous Methods for Characterizing Spread of Infectious Disease and Invasive Species—◆Earvin Balderama, University of California, Los Angeles; Rick Paik Schoenberg, University of California, Los Angeles

3:35 p.m. Floor Discussion

251 CC-119 (West)

Topics in Missing Data—Contributed

Section on Statistics in Epidemiology, Biometrics Section
Chair(s): Hector Lemus, San Diego State University

2:05 p.m. Nested Multiple Imputation in the Active Bacterial Core Surveillance System—◆Tracy Pondo, CDC; Elizabeth R. Zell, CDC; Chris A. Van Beneden, CDC; Benjamin J. Silk, CDC

2:20 p.m. Analysis of Recurrent Event Data in the Presence of Terminal Events and Missing Covariates—◆Shankar Viswanathan, The University of North Carolina at Chapel Hill; Jianwen Cai, The University of North Carolina at Chapel Hill

2:35 p.m. Marginal Method for Multilevel Incomplete Binary Data That Are Missing at Random—◆Baojiang Chen, University of Washington; Xiao-Hua Zhou, University of Washington

2:50 p.m. The Variance Calculation Following Multiple Imputation: Illustration with Cholera Mortality Data Collected by John Snow—◆James A. Hanley, McGill University; Juli Atherton, McGill University

3:05 p.m. Evaluation of Methods for Dealing with Outcome Missing Data in Random Controlled Trials—◆Breda Munoz, RTI International; Virginia M. Lesser, Oregon State University; James Hersey, RTI International

3:20 p.m. Hot-Deck Multiple Imputation via Predictive Moment Matching—◆Chia-Ning Wang, University of Michigan; Roderick Joseph Little, University of Michigan

3:35 p.m. Improving the Performance of the Generalized Score Tests in Longitudinal Studies with Missing Data—◆Kumar B. Rajan, Rush Institute for Healthy Aging; Carlos F. Mendes de Leon, Rush Institute for Healthy Aging

252 CC-117 (West)

Errors in Variables and Misclassification—Contributed

Section on Statistics in Epidemiology

Chair(s): Sonya L. Heltshe, Cystic Fibrosis Therapeutics Development Network Coordinating Center

2:05 p.m. Regression Analysis for Differentially Misclassified Correlated Binary Outcomes—◆Li Tang, Emory University; Robert H. Lyles, Emory University; Caroline C. King, CDC; David Celantano, The Johns Hopkins University; Yungtai Lo, Montefiore Medical Center/Albert Einstein College of Medicine; Jack Sobel, Wayne State University School of Medicine

2:20 p.m. Validation Data-Based Adjustments for Outcome Misclassification in Logistic Regression—◆Robert H. Lyles, Emory University; Li Tang, Emory University; Hillary M. Superak, Emory University; Caroline C. King, CDC; David Celentano, The Johns Hopkins University; Yungtai Lo, Montefiore Medical Center; Jack Sobel, Wayne State University

2:35 p.m. On the Effect of Diagnostic Misclassification Bias on the Observed Spatial Pattern in Regional Count Data: A Simulation Study—◆Olaf Berke, University of Guelph

2:50 p.m. Regression Calibration for Nonlinear Functions of Mismeasured Predictors—◆David Yanez, University of Washington; Quenna Wong, Collaborative Health Studies Coordinating Center; Jeffrey R. Wilson, The University of Utah

3:05 p.m. Impact of Measurement Error on Practical Abdominal Obesity Measures: A Simulation Study—◆Marike Vuga, University of Pittsburgh

3:20 p.m. How to Estimate Measurement Error Variance Associated with Ancestry Proportion Estimates—◆Jasmin Divers, Wake Forest University Health Sciences; David T. Redden, The University of Alabama at Birmingham; Raymond J. Carrol, Texas A&M University; David B. Allison, The University of Alabama at Birmingham

3:35 p.m. Floor Discussion

253 CC-116 (West)

■ Diagnostic Testing and ROC Analysis—Contributed

Section on Statistics in Epidemiology

Chair(s): Neal Jeffries, National Heart, Lung, and Blood Institute

2:05 p.m. Optimal Weight in Estimating the Receiver Operating Characteristic Curve Area Using Longitudinal Data—◆Yougui Wu, University of South Florida

2:20 p.m. Evaluating Screening Tests for Chlamydia trachomatis in the Absence of a Gold Standard Test—◆Alula Hadgu, CDC; Liangliang Wang, The University of British Columbia; Nandini Dendukuri, McGill University

2:35 p.m. Optimal Stratification of a Continuous Variable Using Overall C-Index and ROC—◆Sunita Ghosh, Alberta Health Services

2:50 p.m. Correcting for Misclassification in Testing Differences in Group Means Using Validation Data—◆Chengxing Lu, Merck Research Laboratories; Robert H. Lyles, Emory University; Hung-Mo Lin, Mount Sinai School of Medicine

3:05 p.m. Meta-Analysis of Diagnostic Test Characteristics in the Absence of a Gold Standard Reference Test—◆Nandini Dendukuri, McGill University; Ian Schiller, McGill University; Lawrence Joseph, McGill University; Madhukar Pai, McGill University

3:20 p.m. A Way to Improve the Efficiency of Determining the Optimal Cut-Point—◆Qin Liu, University of Massachusetts Medical School

3:35 p.m. Estimating Incremental Value in Marker Combinations Using a Two-Stage Study Design—◆Aasthaa Bansal, University of Washington; Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center

254 CC-111/112 (West)

Epidemiology Designs Based on Complex Survey Data—Contributed

Section on Statistics in Epidemiology
Chair(s): Yan Li, The University of Texas at Arlington

2:05 p.m. Efficient Weighting Approaches for Analysis of Population-Based Case-Control Studies with Complex Sampling Designs—◆Victoria Landsman, National Cancer Institute; Barry I. Graubard, National Cancer Institute

2:20 p.m. Conditional Logistic Regression with Survey Data—◆Barry I. Graubard, National Cancer Institute; Edward L. Korn, National Cancer Institute

2:35 p.m. Estimating Model-Adjusted Prevalence Ratio with Predicted Marginal Ratio in Complex Survey—◆Zhen Zhao, CDC

2:50 p.m. Self-Weighting Treatment Group Subsamples Using Rejection Sampling in Observational Studies—◆Jason Colin Legg, Amgen Inc.

3:05 p.m. Proportional Likelihood Ratio Model—◆Xiaodong Luo, Mount Sinai School of Medicine; Wei Yann Tsai, Columbia University

3:20 p.m. Analysis and Design Issues in a Case-Control Study from Controls Selection Perspective—◆Binod P. Neupane, McMaster University; Mark Loeb, McMaster University; Stephen D. Walter, McMaster University; Paul Krueger, McMaster University

3:35 p.m. Floor Discussion

255 CC-109 (West)

■ ✪ Assessing and Adjusting for Nonresponse Via Imputation, Matching, or Modeling—Contributed

Section on Survey Research Methods
Chair(s): Rachel Harter, NORC

2:05 p.m. Potential Impacts of Measurement Error and Nonresponse on Estimates of Habitual Physical Activity for a Population—◆Nicholas Koenen Beyler, Iowa State University; Sarah Nusser, Iowa State University; Wayne A. Fuller, Iowa State University; Alicia Carriquiry, Iowa State University; Gregory Welk, Iowa State University

2:20 p.m. Estimating Technology Adoption and Aggregate Volumes from U.S. Payments Surveys in the Presence of Complex Item Nonresponse—◆May X. Liu, Federal Reserve Board; Geoffrey R. Gerdes, Federal Reserve Board

2:35 p.m. Assessing Nonresponse Bias and Measurement Error Using Statistical Matching—◆John Dixon, Bureau of Labor Statistics

2:50 p.m. A Semiparametric Approach to Inference with Nonignorable Missing Data Using Surrogate Information—◆Sixia Chen, Iowa State University; Jae-Kwang Kim, Iowa State University

3:05 p.m. Analyzing Nonresponse Bias Among Kindergarten Teachers in the Head Start Family and Child Experiences Survey (FACES)—◆Barbara Lepidus Carlson, Mathematica Policy Research, Inc.; Jerry West, Mathematica Policy Research, Inc.

3:20 p.m. Incorporating Nonresponse Follow-Up into a Main Survey Data Set—◆Shin-Jung Lee, University of Michigan; James Lepkowski, University of Michigan; Kristen Olson, University of Nebraska-Lincoln; Dandan Zhang, Westat

3:35 p.m. On Modeling and Estimation of Response Probabilities When Missing Data Are Not Missing at Random—◆Michail Sverchkov, Bureau of Labor Statistics

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

256 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Biopharmaceutical Section—Contributed

Biopharmaceutical Section
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

01 Validation of a Monte-Carlo Markov Model for Schizophrenia—◆Alice Dragomir, Université de Montréal; Jean-Francois Angers, Université de Montréal; Jean-Eric Tarride, McMaster University; Syvie Perreault, Université de Montréal

02 Functional Mixed-Effects Modeling of Electroencephalographic (EEG) Data—◆Shubhankar Ray, Merck & Co., Inc.

03 Statistical Evaluation of Nonprofile Analyses for In Vitro Bioequivalence—◆Jen-pei Liu, National Taiwan University

04 Comparisons of Failure Time Distribution for Interval-Censored Data—◆Ying Wan, Johnson & Johnson; Kuo-Mei Chen, Rutgers University

05 Power and Robustness of Nonparametric Covariate Adjustment Methods for Ordinal Data—◆Wei Tian, Inspire Pharmaceuticals; Muhtarjan Osman, North Carolina State University

06 A Multiple Imputation Approach for Estimating Rank Correlation with Left-Censored Data—John M. Williamson, CDC; Sara B. Crawford, Valparaiso University; ◆Hung-Mo Lin, Mount Sinai School of Medicine

07 Establishing Sample Size in Clinical Trials Having Multiple Hypotheses—◆Alan Barry Davis, Pharmanet Development Group, Inc.; Mary M. Poole, Pharmanet Development Group, Inc.; Young Kim, Pharmanet Development Group, Inc.

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

08 Correcting an Incorrect Statistical Practice in Pharmacokinetics and Related Fields—◆Jingyuan Wang, Millennium Pharmaceuticals, Inc.

09 Statistics in Bioprocess Development—◆Priya Kulkarni, Genentech; Dan Coleman, Genentech

10 Longitudinal Methods for Analysis of Tumor Burden Data—◆Ritwik Sinha, Bristol-Myers Squibb;Aparna B. Anderson, Bristol-Myers Squibb

11 Statistical Considerations on Validating Microarray Platform in Clinical Development—◆Guang (Gary) Chen, Merck & Co., Inc.; Christopher Ramsborg, Merck & Co., Inc.;Yue Wang, Merck & Co., Inc.; Miho Kibukawa, Merck & Co., Inc.; Joel A. Klappenbach, Merck & Co., Inc.

12 Harmonic Regression Analysis of Periodic Time Series Data from Clinical Trials—◆Michael T. Gaffney, Pfizer Inc.; Martin O. Carlsson, Pfizer Inc.; Kelly H. Zou, Pfizer Inc.

13 Adjusted Cumulative Distribution Function and Effect Size Methods for Stratified Two-Sample Comparisons—Kelly H. Zou, Pfizer Inc.; ◆Martin O. Carlsson, Pfizer Inc.; Ching-Ray Yu, Pfizer Inc.

14 Characterizing the Mutation Pathway for Integrase Inhibitor—◆Jing Zhao, Merck Research Laboratories

15 Calculating an Exact *p*-Value for a Noninferiority Test on Matched Pair Data—◆Jennifer E. Hamer-Maansson, AstraZeneca

16 The Analysis of Overall Survival When Length of Treatment and Treatment Switching Are Time-Dependent Outcomes of Oncology Trials—◆Jinwei Yuan, ICON Clinical Research;Armando Garsd, ICON Clinical Research

17 Hierarchical Poisson Regression Model with Application to Efficacy Data of ZOSTAVAXTM for Evaluating Vaccine Waning Effect—◆Shu-Chih Su, Merck & Co., Inc.

18 Definition of a Responder in Clinical Trials for Alcohol Dependence—◆Yun-Fei Chen, Eli Lilly and Company; Xiwen Ma, University of Wisconsin-Madison

19 Bayesian Methods in Combination Drug Studies:A Performance Analysis—◆Peiqi Zhai, Southern Methodist University

20 Semiparametric AUC Model with Placement Values—◆Lin Zhang, Quintiles; Jack Tubbs, Baylor University

21 Transfer of Methods Supporting Biologics and Vaccines—◆Rong Liu, Merck & Co., Inc.;Timothy Schofield, GlaxoSmithKline; Jason Liao, Merck Research Laboratories

22 A Simulation Study to Evaluate Dose-Response in Dose-Titration Clinical Trials:A Dynamic Linear Mixed Effect (DLME) Modeling Approach—◆Xu Steven Xu, Johnson & Johnson; Min Yuan, Fudan University, China; Julia Wang, Johnson & Johnson; Partha Nandy, Johnson & Johnson

23 Comparison of Imputation Methods for the Delayed Start Design in Studies of Alzheimer's Disease—◆Kathryn Dawson, PPD, Inc.

24 Survival Methods for Modeling the Time to Drop-Out in Pain Studies—◆Tilda Chuang,Abbott Laboratories; Wei Liu,Abbott Laboratories; Sandeep Dutta,Abbott Laboratories

25 In Vitro Drug Combination Analysis in Excel:A Case Study in HIV—◆Karen Chiswell, GlaxoSmithKline; Katja Sabine Remlinger, GlaxoSmithKline; Mark Underwood, GlaxoSmithKline

26 Evaluating Endpoint Determination and Approaches for Handling Missing Data in Pain Trials—Lindsey Lian, PPD, Inc.; ◆Benjamin Luke Peterson, PPD, Inc.

27 Analysis of Statistical Tests to Compare Cumulative Proportion of Responders for Pain Data in Clinical Trials—◆Song Wang, PPD, Inc.

28 Comparison of Longitudinal Analyses of Binary Outcome Data: Marginal Models vs. Generalized Linear Mixed Models—◆Qian Dong, Merck Sharp & Dohme Corp.

29 Recent Development in Exact Inference for Categorical Data—Dar Shong Hwang, B.R.S.I.; ◆James Lee, Daiichi Sankyo Pharma Development

30 The Use of Contrast-Enhancing Lesions to Predict Imminent Relapse:Validating Cutter's Rule—◆Charity Johanna Morgan,The University of Alabama at Birmingham;Ashutosh Ranjan,The University of Alabama at Birmingham; Gary Cutter, University of Alabama at Birmingham

31 Competing Risks Methods in Safety Analysis of Oncology Clinical Trials—Sofia Paul, Novartis Pharmaceuticals Corporation; ◆Bingqing Zhou,The University of North Carolina at Chapel Hill; Samit Hirawat, Novartis Pharma; Glen Laird, Novartis Pharmaceuticals Corporation

32 Identifying Treatment Responsive Trajectory Classes in a Depression Trial:An Alternative Statistical Approach—◆Maggie Kuchibhatla, Duke University Medical Center; Gerda Fillenbaum, DUMC

33 A Bootstrap Approach to Estimating Antibody Levels in Case of Non-Normal Data—◆Roger Maansson, Merck & Co., Inc.

34 Implementation of EWOC (Escalation With Overdose Controls) Adaptive Dose-Finding Design in a Phase IIA Clinical Trial—◆Catherine Bresee, Oschin Comprehensive Cancer Institute;Amir Steinberg, Oschin Comprehensive Cancer Institute; Jeremy Rudnick, Oschin Comprehensive Cancer Institute;Andre Rogatko, Oschin Comprehensive Cancer Institute

35 Analyzing Correlated Binary Data: Examples from Animal Drug Studies—Kyunghee Kim Song, FDA/CDRH; ◆Todd Blessinger, HHS/FDA/CVM

36 Comparison of Power for ANCOVA Models Based on Central Tendency versus Nonparametric Analysis of Cumulative Responders for Clinical Trials with Continuous Response Endpoints—◆Kevin L. Lawson, PPD, Inc.

37 Comparisons of Methods in Phase I Dose-Escalation Clinical Trial Designs—◆Liping Huang, Bayer HealthCare Pharmaceuticals

38 A General Framework of Adaptive Designs for Early-Phase Oncology Clinical Trials—◆Lixin Lang, Bristol-Myers Squibb; Ralph Raymond, Bristol-Myers Squibb

39 A Model for Multilevel Clustered Data with Informative Cluster Size Using Poisson Distribution—◆Ana-Maria Iosif, University of California, Davis; Allan Sampson, University of Pittsburgh

40 Using Pilot Study for Clinical Study Planning—◆Hongbin Gu, The University of North Carolina at Chapel Hill; Xiaofei Wang, Duke University

257 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Statistics in Epidemiology—Contributed

Section on Statistics in Epidemiology

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

41 Utilizing Multiple Imputation for Missing Race in the Active Bacterial Core Surveillance (ABCs) System—◆Melissa Lewis, CDC; Tracy Pondo, CDC; Elizabeth R. Zell, CDC

42 Interactive Effects of Alcohol and Tobacco on Head and Neck Cancer: A Visualization Using Bivariate Splines—◆Jennifer JinJin Clark, The University of North Carolina at Chapel Hill; Andrew Olshan, The University of North Carolina at Chapel Hill; Amy H. Herring, The University of North Carolina at Chapel Hill

43 Bivariate Time Series Analysis of Longitudinal Models—◆Paul Kolm, Christiana Care Health System; Claudine Jurkovitz, Christiana Care Health System

44 Does Food-Grouping Make a Difference When Deriving Dietary Patterns Using Latent Class Models? A Monte Carlo Simulation Study—◆Daniela Sotres-Alvarez, The University of North Carolina at Chapel Hill; Amy H. Herring, The University of North Carolina at Chapel Hill; Anna Maria Siega-Riz, The University of North Carolina at Chapel Hill

45 Doubly Truncated Negative Binomial Regression for Evaluating the Age Distribution of Pertussis Infant Deaths—◆Andrew Lewis Baughman, CDC; Tracy Pondo, CDC; Margaret Cortese, CDC; Barry Sirotkin, CDC; Charles E. Rose Jr., CDC; Tejpratap Tiwari, CDC

46 Prediction of Pneumococcal Nonvaccination Among Persons Aged >= 65 Years—◆Fan Zhang, CDC; Wei Yu, CDC; Tiebin Liu, CDC; Peng-Jun Lu, CDC; Faruque Ahmed, CDC

47 Modeling Menstrual Cycle Length at the Approach of Menopause Using Bayesian Changepoint Models—Xiaobi Huang, University of Michigan; ◆Michael R. Elliott, University of Michigan

48 Application of Fuzzy Clustering and Discriminant Analysis to Identify Neighborhood Population Characteristics and Health Needs—◆Ashely Pedigo, University of Tennessee; William Seaver, University of Tennessee; Agricola Odoi, University of Tennessee

49 Generalized Additive Models to Nomial Responses Using Bivariate Kernel: A Solution to Spatial Analysis—◆Ana Carolina Cintra Nunes Mafra, State University of Campinas - Unicamp; Luciana Bertoldi Nucci, State University of Campinas; Ricardo Carlos Cordeiro, State University of Campinas - Unicamp; Celso Stephan, State University of Campinas

50 Sickle Cell Disease–Related Mortality Trends in the United States Adolescent and Adult, 1986–2005—◆Qing C. Zhang, CDC; Althea M. Grant, CDC; Vanessa Byams, CDC

51 Informative Array Screening—◆Christopher Steven McMahan, University of South Carolina; Joshua Tebbs, University of South Carolina

52 Gastrointestinal Side Effects in Postmenopausal Women Using Osteoporosis Therapy: One-Year Findings in the POSSIBLE U.S. Study—◆Guozhi Gao, Amgen Inc.; Claudine Woo, Amgen Inc.; Sally Wade, Wade Outcomes Research and Consulting; Marc Hochberg, University of Maryland

53 New Developments in Variance Component Models for Disentangling Maternal Genetic and Environmental Effects in Pedigree Analysis—◆Jin Jin Zhou, University of California, Los Angeles; Kenneth Lange, University of California, Los Angeles; Christina Palmer, University of California, Los Angeles; Janet Suzanne Sinsheimer, University of California, Los Angeles

54 Computing the Standard Error of the Relative Risk of Dementia versus Death in a Multistate Nonstationary Markov Chain—Lei Yu, Rush Alzheimer's Disease Center; ◆Richard J. Kryscio, University of Kentucky

55 Effects of Social and Psychological Factors on Health—Man Hung, The University of Utah; ◆Melody Perez-Ollerton, The University of Utah

56 Interrelating of Longitudinal Processes: An Empirical Example—◆Tamika Y.N. Royal-Thomas, Florida State University; Daniel McGee, Florida State University; Debajyoti Sinha, Florida State University; Clive Osmond, Medical Research Council Epidemiology Resource Centre; Terrence Forrester, Tropical Medicine Research Institute

57 Bayesian Mixed Hidden Markov Models (BMHMM): A Multilevel Approach to Modeling Childhood Asthma—◆Yue Zhang, University of Southern California; Kiros Berhane, University of Southern California

58 A Structural Equation Model for Estimating the Mediation Proportion of Radiation, Inflammation, and Cataract—◆Wan-Ling Hsu, Radiation Effects Research Foundation; Kazuo Neriishi, Radiation Effects Research Foundation; Eiji Nakashima, Radiation Effects Research Foundation; Tatsuyuki Kakuma, Kurume University

59 The Prediction of Ovarian Response in Women Undergoing IVF—◆Dixi Xue, Merck & Co., Inc.

60 Using Bayesian Logistic Regression to Estimate the Risk or Prevalence Ratio—◆Charles E. Rose Jr., CDC; Andrew Lewis Baughman, CDC

61 Controlling for Birth Cohort Effects in the Age-Based Cox Proportional Hazards Model—◆Misty Jena Hein, CDC/NIOSH; Mary Schubauer-Berigan, CDC/NIOSH; James Deddens, CDC/NIOSH/University of Cincinnati

62 Spatial Concentration of Mortality for the Five Leading Causes of Death in the United States, 2004–2006—◆Jay H. Kim, CDC/NCHS; Joe Fred Gonzalez Jr., National Center for Health Statistics

63 Improvements in Ability to Detect Undiagnosed Diabetes by Using Information on Family History Among Adults in the United States—◆Quanhe Yang, CDC; Tiebin Liu, CDC; Ramal Mooneshinghe, CDC; Rodolfo Valdez, CDC; Muin Khoury, CDC

64 Censoring Circumcision's Effect on HPV Clearance—◆Xiangrong Kong, Johns Hopkins Bloomberg School of Public Health

65 Spatial Risk for Multinomial Ordinal Responses: An Example of Overweight Distribution—◆Luciana Bertoldi Nucci, State University of Campinas; Ana Carolina Cintra Nunes Mafra, State University of Campinas - Unicamp; Celso Stephan, State University of Campinas; Lia Zangirolani, State University of Campinas; Ricardo Carlos Cordeiro, State University of Campinas - Unicamp

66 Overweight Distribution and Spatial Risk for Binomial Response—Lia Zangirolani, State University of Campinas; Luciana Bertoldi Nucci, State University of Campinas; Ana Carolina Cintra Nunes Mafra, State University of Campinas - Unicamp; Maria Angelica Tavares Medeiros, Pontificia Universidad Católica de Campinas; Liciana Vaz Arruda Silveira, Universidade Estadual Paulista Júlio de Mesquita Filho; ◆Ricardo Carlos Cordeiro, State University of Campinas - Unicamp

67 Analysis of Multidimensional Profiles with Small Sample Sizes Using Nonparametric Methods and U-Scores—◆Margo Sidell, Tulane University; Leann Myers, Tulane University

68 Intergenerational Relationships in Preterm: A Mixed Modeling Approach—◆Edwin Amalraj Raja, University of Aberdeen

69 Augmented Cross-Sectional Studies with Abbreviated Follow-Up for Estimating HIV Incidence—◆Brian Claggett, Harvard School of Public Health

70 Logistic Regression with Markov Chains as Covariates with Application in Identifying Lung Cancer Risk Factors—◆Chung-Han Ho, The University of Texas School of Public Health; Carol J. Etzel, MD Anderson Cancer Center; Wenyaw Chan, The University of Texas School of Public Health; Randa El-Zein, MD Anderson Cancer Center; Alanna C. Morrison, The University of Texas School of Public Health

71 A Mixed Model for Invasive MRSA Rates Analysis Among EIP Sites—◆Yi Mu, CDC; Jonathan R. Edwards, CDC; Scott Fridkin, CDC

72 Association Study of Health Outcomes Based on Combined Data from Primary and Ancillary Surveys—◆Tianle Hu, University of Michigan; Trivellore Raghunathan, University of Michigan; Ana Diez-Roux, University of Michigan

73 A Study of Relationships Between Family Members Using Familial Correlations—◆Corinne Wilson, Old Dominion University; Dayanand Naik, Old Dominion University

74 Handling Missing Data in a Longitudinal Community Epidemiological Study of Urban Children's Exposure to Violence—◆Lingqi Tang, University of California, Los Angeles; Thomas R. Belin, University of California, Los Angeles; Michele Cooley-Strickland, University of California, Los Angeles Center for Culture and Health

75 Methodological Considerations Affecting How to Treat the Baseline Measurement of an Outcome—◆Jennifer Faerber, University of Pennsylvania; Russell Localio, University of Pennsylvania

76 Statistical Methods to Check Agreement Between Two Coding Systems—◆Qingzhao Yu, Louisiana State University Health Sciences Center; Xiaocheng Wu, Louisiana State University Health Sciences Center; Patricial Andrews, Louisiana State University Health Sciences Center; Donald Mercante, Louisiana State University Health Sciences Center

77 A Spatial Analysis of Parish-Level Variation in Hospitalization Rates for *Staphylococcus aureus* Infections in Louisiana—◆Adriana Cristina Dornelles, Tulane University; Catrin Jones-Nazar, Louisiana Department of Health and Hospitals; John Lefante, Tulane University; Raoult C. Ratard, Louisiana Department of Health and Hospitals

258 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Teaching of Statistics in the Health Sciences—Contributed

Section on Teaching of Statistics in the Health Sciences

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

78 The Relationship Between Attitude and Knowledge of Health Care Statistics—◆Heibatollah Baghi, George Mason University; Ellen Swartwout, George Mason University

79 Respondent-Driven Sampling Implementation in Rural Arkansas: Lessons Learned—◆Songthip Ounpraseuth, University of Arkansas for Medical Sciences; Brenda Booth, University of Arkansas for Medical Sciences; Katharine Stewart, University of Arkansas for Medical Sciences

80 Development of a Noncredit Research Training Program for Clinical Researchers—◆Lori Lyn Price, Tufts Medical Center; John Griffith, Tufts Medical Center

81 Attitudes and Beliefs Toward Statistics of Health Sciences Students—◆Laura Pontiggia, University of the Sciences in Philadelphia; Carl Walasek, University of the Sciences in Philadelphia

259 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Health Policy Statistics—Contributed

Health Policy Statistics Section

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

82 Health, Disability, and Employment Status Effects of a Diabetes Management Life Coaching and Pharmacist Counseling Intervention—◆Tammy Tom, The University of Hawaii

83 Modeling Hierarchical Structure of Complex Data from a Network of Drug Treatment Programs—◆Carrie J. Tillotson, Oregon Health & Science University; Dongseok Choi, Oregon Health & Science University; Kim Hoffman, Oregon Health & Science University; Dennis McCarty, Oregon Health & Science University

84 Comparison of Quadratic Inference Functions and Generalized Estimating Equations: Longitudinal Case Study of Act 1220 of 2003 Health Policy in Arkansas—◆Zoran Bursac, University of Arkansas for Medical Sciences; D. Keith Williams, University of Arkansas for Medical Sciences; Clinton Heath Gauss, University of Arkansas for Medical Sciences; Page Moore, University of Arkansas for Medical Sciences; Melanie E. Goodell, University of Arkansas for Medical Sciences; Rebecca A. Krukowski, University of Arkansas for Medical Sciences; Delia Smith West, University of Arkansas for Medical Sciences; Martha M. Phillips, University of Arkansas for Medical Sciences; James M. Raczynski, University of Arkansas for Medical Sciences

85 New Approaches to Understanding Heterogeneity in Responses of Cells to Treatment Based on Microscope Images—◆Fangyi Liu, University of Michigan

86 Small-Area Estimation Using Geoadditive Models—◆Hongjian Yu, University of California, Los Angeles Center for Health Policy Research; Xianghang Shi, University of California, Los Angeles Center for Health Policy Research

87 Analysis of National Survey Data on Public Concerns About H1N1 Pandemic Influenza—◆William Pollard, CDC; Sharmily Roy, CDC/Oakridge Institute for Science and Education

88 Simulation of Kidney Paired Donation Programs—◆Yijiang (John) Li, University of Michigan; Yan Zhou, University of Michigan; John David Kalbfleisch, University of Michigan; Peter Song, University of Michigan

89 Statistical Reasons Why Preference-Scored Measures of HRQoL Disagree—◆Mari Palta, University of Wisconsin

90 A Quasi-Likelihood Analysis of Patient Satisfaction Following Orthognathic Surgery—Dorothy Leann Long, The University of North Carolina at Chapel Hill; John S. Preisser, The University of North Carolina at Chapel Hill; Ceib Phillips, The University of North Carolina at Chapel Hill; ◆Dustin Long, The University of North Carolina at Chapel Hill

91 Comparison of Two Interquartile Ranges Utilizing the Bootstrap Method—Barbara Napolitano, Feinstein Institute for Medical Research; ◆Martin L. Lesser, Feinstein Institute for Medical Research; Renee Pekmezaris, North Shore LIJ Health System; Dana Lustbader, North Shore University Hospital

Invited Session 4:00 p.m.–5:50 p.m.

260 CC-Ballroom AB (West)

ASA President's Invited Address—Invited

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association

Organizer(s): Sastry Pantula, North Carolina State University

4:05 p.m. The Forecast for Predictive Analytics: Hot and Getting Hotter—◆Jim Goodnight, SAS Institute

5:05 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

TUESDAY, AUGUST 3

Committee/Business Meetings & Other Activities

7:00 a.m.–8:30 a.m. FW-Burrard Suite
Committee on Professional Ethics Meeting
Chair(s): Shelley Hurwitz, Brigham and Women's Hospital

7:00 a.m.–8:30 a.m. CC-105 (West)
Development Committee Meeting
Chair(s): Scott Evans, Harvard University

7:00 a.m.–8:30 a.m. FW-Sechelt Room
Business and Economic Statistics Section Executive Committee Meeting
Chair(s): Richard Davis, Columbia University

7:00 a.m.–8:30 a.m. CC-7 (East)
Technometrics Editorial Board Meeting
Chair(s): Hugh A. Chipman, Acadia University

7:00 a.m.–8:30 a.m. CC-113 (West)
Section on Government Statistics Executive Board Meeting
Chair(s): John Dixon, Bureau of Labor Statistics

7:00 a.m.–8:30 a.m. CC-5 (East)
Committee on Privacy and Confidentiality Annual Meeting
Chair(s): Jerome P. Reiter, Duke University

7:00 a.m.–8:30 a.m. FW-Princess Louisa Suite
Section on Statistics in Defense and National Security Business Meeting
Chair(s): Lara Schmidt, ASA; Lara Schmidt, RAND Corporation

7:00 a.m.–8:30 a.m. CC-108 (West)
Survey Review Committee Annual Business Meeting
Chair(s): Jonaki Bose, Substance Abuse and Mental Health Services Administration

7:00 a.m.–10:00 a.m. FW-MacKenzie II
Council of Chapters Business Meeting and Breakfast
Chair(s): V.A. (Sam) Samaranayake, Missouri University of Science and Technology

7:00 a.m.–10:00 a.m. FW-Cheakamus Room
Section on Physical and Engineering Sciences Executive Committee Meeting
Chair(s): Russell Lenth, The University of Iowa

7:00 a.m.–6:00 p.m. CC-103/104 (West)
Speaker Management Room

7:00 a.m.–10:00 p.m. CC-West Registration
Cyber Center

7:30 a.m.–8:30 a.m. CC-107 (West)
Committee on ASA Archives and Historical Materials Annual Meeting
Chair(s): John Paul Deley, Energy Information Administration

7:30 a.m.–9:00 a.m. FW-Terrace Room
The Ohio State University Department of Statistics Alumni and Friends Breakfast
Organizer(s): Elizabeth Stasny, The Ohio State University

7:30 a.m.–4:30 p.m. CC-West Registration
ASA Membership/Special Assistance/Press Desk

7:30 a.m.–4:30 p.m. CC-West Registration
JSM Main Registration

8:00 a.m.–12:00 p.m. FW-Malaspina Room
Committee of Presidents of Statistical Societies Annual Business Meeting
Organizer(s): Xihong Lin, Harvard School of Public Health

8:00 a.m.–6:00 p.m. CC-Exhibit Hall B (West)
Career Placement Service

8:00 a.m.–6:00 p.m. CC-Exhibit Hall A (West)
Exhibitor Lounge

8:30 a.m.–10:00 a.m. CC-19/20 (East)
Section on Statistical Analysis and Data Mining Business Meeting
Chair(s): Joseph Stephen Verducci, The Ohio State University

8:30 a.m.–10:00 a.m. CC-106 (West)
JASA Business Meeting
Chair(s): Hal Stern, University of California, Irvine

9:00 a.m.–5:30 p.m. CC-West Registration
ASA Marketplace

9:00 a.m.–6:00 p.m. CC-Exhibit Hall A (West)
EXPO 2010

9:00 a.m.–6:00 p.m. CC-Exhibit Hall A (West)
American Statistical Association Booth #401

9:30 a.m.–10:30 a.m. CC-105 (West)
Transportation Statistics Group Annual Meeting
Organizer(s): Promod Chandhok, Bureau of Transportation Statistics

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

11:00 a.m. –12:30 p.m. CC-19/20 (East)
Cavell Brownie Scholars JSM Mentoring Program (closed)
Chair(s): Marcia Gumpertz, North Carolina State University

11:30 a.m.–12:30 p.m. FW-Douglas Boardroom
JASA/TAS Review Editors Meeting
Chair(s): Dalene Stangl, Duke University

12:30 p.m.–2:00 p.m. Off Property
Section on Bayesian Statistical Science Business Meeting - SBSS Officers (offsite)
Chair(s): Mike West, Duke University

12:30 p.m.–2:00 p.m. CC-113 (West)
ASA Committee on Membership Retention and Recruitment Meeting
Chair(s): Ming-Xiu Hu, Millennium Pharmaceuticals, Inc.

12:30 p.m.–2:00 p.m. CC-107 (West)
JCGS Management Committee Meeting
Chair(s): J. Lynn Palmer, MD Anderson Cancer Center

12:30 p.m.–2:00 p.m. FW-Cheakamus Room
JASA Editorial Board Meeting
Chair(s): Hal Stern, University of California, Irvine

12:30 p.m.–2:00 p.m. FW-Terrace Room
Deming Luncheon
Chair(s): A. Blanton Godfrey, North Carolina State University

12:30 p.m.–2:30 p.m. CC-108 (West)
The American Statistician Editor's Lunch
Chair(s): John Stufken, The University of Georgia

12:30 p.m.–4:30 p.m. CC-7 (East)
RAB/RECOM Luncheon Meeting
Organizer(s): Kathy Hoskins, ENAR; Sharon-Lise Normand, ENAR

2:00 p.m.–3:30 p.m. CC-19/20 (East)
Hawkes Learning Systems: All Statistics Software Is Not Created Equal: What's the Difference?
Organizer(s): Brittany Walker, Hawkes Learning Systems

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

2:00 p.m.–3:30 p.m. FW-Princess Louisa Suite
Council Chapters Traveling Course Committee Meeting
Chair(s): Glenn White, Ernst & Young

3:30 p.m.–5:00 p.m. FW-Douglas Boardroom
Current Index to Statistics Management Committee Meeting
Chair(s): James E. Gentle, George Mason University

4:00 p.m.–5:00 p.m. FW-Waterfront Ballroom A
REvolution Computing: Introduction to R
Organizer(s): David Smith, REvolution Computing

4:00 p.m.–6:00 p.m. FW-Princess Louisa Suite
Council of Chapters Workshop and Reception
Chair(s): Kathleen Morrissey, Strategy 2 Market, Inc.

5:00 p.m.–6:00 p.m. CC-5 (East)
Committee on Minorities in Statistics Networking Reception
Chair(s): Brian Millen, Eli Lilly and Company

5:00 p.m.–6:30 p.m. FW-Burrard Suite
Centers for AIDS Research Statisticians Annual Meeting
Organizer(s): Susan Ellenberg, University of Pennsylvania School of Medicine

5:00 p.m.–6:30 p.m. CC-4 (East)
Committee on Gay and Lesbian Concerns in Statistics Business Meeting
Chair(s): Barry Wayne Johnson, IRS

5:00 p.m.–6:30 p.m FW-Malaspina Room
Caucus for Women in Statistics Business Meeting and Social
Organizer(s): Jennifer Parker, National Center for Health Statistics

5:00 p.m.–7:00 p.m. FW-Waterfront Ballroom C
North Carolina State University Mixer
Organizer(s): Pam Arroway, North Carolina State University

5:30 p.m.–6:30 p.m. CC-106 (West)
JSM 2012 Program Committee Orientation Meeting

5:30 p.m.–6:30 p.m. FW-Terrace Room
Business and Economic Statistics Section Business Meeting
Chair(s): Richard Davis, Columbia University

5:30 p.m.–7:00 p.m. CC-111/112 (West)
Section on Statistical Consulting Business Meeting
Chair(s): Todd G. Nick, University of Arkansas for Medical Sciences

5:30 p.m.–7:00 p.m. CC-113 (West)
Section on Nonparametric Statistics Business Meeting
Chair(s): Jane-Ling Wang, University of California, Davis

5:30 p.m.–7:00 p.m. CC-209 (West)
Biopharmaceutical Section Annual Business Meeting and Mixer
Chair(s): Katherine Monti, Rho, Inc.

5:30 p.m.–7:30 p.m. CC-210 (West)
Section on Government Statistics Business Meeting
Chair(s): John Dixon, Bureau of Labor Statistics

5:30 p.m.–7:30 p.m. FW-MacKenzie II
Section on Bayesian Statistical Science Business Meeting and Reception/Mixer
Chair(s): Mike West, Duke University

5:30 p.m.–7:30 p.m. FW-Waterfront Ballroom B
Joint Q&P/SPES Business Meeting and Mixer
Chair(s): Russell Lenth, The University of Iowa

6:00 p.m.–7:30 p.m. CC-109 (West)
Section on Statistics in Epidemiology Reception and Presentation of the Nathan Mantel Lifetime Achievement Award
Chair(s): Ron Brookmeyer, University of California, Los Angeles

6:30 p.m.–8:00 p.m. FW-Terrace Room
Business and Economic Statistics Section Reception
Chair(s): Richard Davis, Columbia University

9:30 p.m.–12:00 a.m. CC-Ballroom D (West)
JSM Dance Party & Lounge
Sponsored by SPSS, an IBM Company

Continuing Education (Fee Events)

CE_17C
Analysis of Longitudinal Data Using Antedependence Models
8:00 a.m.–12:00 p.m. CC-8 (East)
Instructor(s): Dale Zimmerman, The University of Iowa

CE_18C
Joint Modeling Approaches in Longitudinal Studies Using Random Effects
8:30 a.m.–5:00 p.m. CC-2&3 (East)
Instructor(s): Dimitris Rizopoulos, Erasmus University Medical Center; Geert Verbeke, I-Biostat; Geert Molenberghs, I-BioStat

CE_19C
Bayesian Adaptive Methods for Clinical Trials
8:30 a.m.–5:00 p.m. CC-1 (East)
Instructor(s): Bradley P. Carlin, University of Minnesota; Donald Arthur Berry, MD Anderson Cancer Center; J. Jack Lee, MD Anderson Cancer Center; Scott Berry, Berry Consultants, LLC

CE_20C

Modeling and Data Analysis for Complex Surveys

8:30 a.m.–5:00 p.m. CC-11(East)

Instructor(s): Jay Breidt, Colorado State University; Jean Opsomer, Colorado State University

CE_21C

Statistical Methods for Genomewide Association Studies

8:30 a.m.–5:00 p.m. CC-12 (East)

Instructor(s): Adrian Dobra, University of Washington; Jennifer Clarke, University of Miami

CE_22C

Design and Analysis of Count and Zero-Inflated Data

1:00 p.m.–5:00 p.m. CC-8 (East)

Instructor(s): Mani Lakshminarayanan, Merck & Co., Inc.; Madhuja Mallick, Merck & Co., Inc.

A.M. Roundtable Discussions 7:00 a.m.–8:15 a.m.

261 CC-Ballroom D (West)

Section for Statistical Programmers and Analysts (fee event)

Section for Statistical Programmers and Analysts

Organizer(s): Chengying (Nancy) Wu, sanofi-aventis

TL01 Statistical Programmers in the Pharmaceutical Industry—◆Chengying (Nancy) Wu, sanofi-aventis

262 CC-Ballroom D (West)

Section on Government Statistics (fee event)

Section on Government Statistics

Organizer(s): Iris Shimizu, National Center for Health Statistics

TL02 The 2010 Census Coverage Measurement Survey—◆Vincent Thomas Mule Jr., U.S. Census Bureau

263 CC-Ballroom D (West)

Section on Health Policy Statistics (fee event)

Health Policy Statistics Section

Organizer(s): Recai Yucel, State University of New York at Albany

TL03 Development and Psychometric Evaluation of the PROMIS(R) Item Banks and Short-Form Instruments—◆Laura Lee Johnson, National Institutes of Health

264 CC-Ballroom D (West)

Section on Physical and Engineering Sciences (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Kary Myers, Los Alamos National Laboratory

TL04 Orientation Data Analysis in Physical Sciences—◆Dan Nordman, Iowa State University

265 CC-Ballroom D (West)

Section on Statistical Computing (fee event)

Section on Statistical Computing

Organizer(s): David J. Poole, AT&T Labs

TL05 Facilitating Communication About Analysis Data Needs Across Functional Areas—◆Steven Kirby, MDS Pharma Services

266 CC-Ballroom D (West)

Section on Statistical Consulting (fee event)

Section on Statistical Consulting

Organizer(s): Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center

TL06 How Do Statisticians Become Members of the Development Team from the Beginning of the Lifecycle?—◆Jeffrey Alan Davidson, Octagon Research Solutions, Inc.

267 CC-Ballroom D (West)

Section on Statistical Education (fee event)

Section on Statistical Education

Organizer(s): Daniel Theodore Kaplan, Macalester College

TL07 Using Technology to Bridge the Gap Between Theory and Application: A Linear Models Example Using SAS/IML—◆Jamis Perrett, Texas A&M University

TL08 Sharing the Curricular High Table with Mathematics—◆Christopher J. Wild, University of Auckland

268 CC-Ballroom D (West)

Section on Teaching of Statistics in the Health Sciences (fee event)

Section on Teaching of Statistics in the Health Sciences

Organizer(s): Nicole Carlson, University of Colorado, Denver

TL09 CTSpedia Education Initiatives: Statistics Teaching, the Clinical and Translational Science Award Sites, and the Web—◆Laurel Beckett, University of California, Davis; Mary Banach, University of California, Davis; Frank E. Harrell Jr., Vanderbilt University School of Medicine; Sally W. Thurston, University of Rochester

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Special Presentations 8:30 a.m.–10:20 a.m.

269 CC-Ballroom C (West)

Introductory Overview Lecture: Statistical Methods for RNA-seq—Other

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association, Biometrics Section
Organizer(s): Ping Ma, University of Illinois at Urbana-Champaign
Chair(s): Jun Liu, Harvard University

8:35 a.m. Statistical Methods for RNA-seq—Wing Hung Wong, Stanford University

10:00 a.m. Floor Discussion

270 CC-306 (West)

ASA College Stat Bowl I—Other

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association

Game 1—Patrick Crutcher, University of California, Los Angeles; Chinthaka Nilanga Kuruwita, Clemson University; Joseph Louis Usset, North Carolina State University; Xiaolei Xun, Texas A&M University

Game 2—Hamdan Azhar, University of Michigan; Nathan Langholz, University of California, Los Angeles; Michael Sanchez, The University of Texas at San Antonio; Sydeaka Patrice Watson, Baylor University

Game 3—Ryan May, The University of North Carolina at Chapel Hill; Allison Meisner, Boston University; John Ramey, Baylor University; Siddharth Roy, North Carolina State University

Game 4—Tan Li, University of South Carolina; Dustin Long, The University of North Carolina at Chapel Hill; Daniel Garrett Polhamus, The University of Texas at San Antonio; Ganggang Xu, Texas A&M University

Invited Sessions 8:30 a.m.–10:20 a.m.

271 CC-114/115 (West)

■ ✪ Statistics in Post-Genome Era: Methods, Theory, and Applications—Invited

ENAR, Biometrics Section, IMS, International Chinese Statistical Association
Organizer(s): Heping Zhang, Yale University
Chair(s): Heping Zhang, Yale University

8:35 a.m. Discovering Influential Variables: A Partition-Based Learning Method to Identify Susceptible Genetic Risk Factors in Common Human Disorders—◆Tian Zheng, Columbia University; Herman Chernoff, Harvard University; Shaw-Hwa Lo, Columbia University

9:00 a.m. An Efficient Method for Estimating Chromosome Copy Number of Variations and Its Theoretical Properties—◆Yue Selena Niu, The University of Arizona; Heping Zhang, Yale University

9:25 a.m. Dynamic Clustering of High-Dimensional Biological Data—◆Rebecka Jornsten, Chalmers/Gothenburg University; Jose Sanchez Lopez, Chalmers/Gothenburg University

9:50 a.m. Efficient Approaches for Identifying Genes Using Genomewide Association Studies—◆Sanjay S. Shete, MD Anderson Cancer Center

10:15 a.m. Floor Discussion

272 CC-211 (West)

✪ Advances in Functional Data Analysis—Invited

Section on Nonparametric Statistics
Organizer(s): Chongzhi Di, Fred Hutchinson Cancer Research Center
Chair(s): Chongzhi Di, Fred Hutchinson Cancer Research Center

8:35 a.m. Software Design for Functional Data with Multi-Index Arguments—◆James Owen Ramsay, McGill University

9:00 a.m. Generalized Functional Latent Feature Models with Single-Index Interactions—◆Raymond Carroll, Texas A&M University; Yehua Li, The University of Georgia; Naisyin Wang, University of Michigan

9:25 a.m. Longitudinal Functional Principal Component Analysis—◆Ciprian Crainiceanu, The Johns Hopkins University

9:50 a.m. Empirical Dynamics for Longitudinal Data—◆Hans-Georg Müller, University of California, Davis; Fang Yao, University of Toronto

10:15 a.m. Floor Discussion

273 CC-301 (West)

■ ✪ Future Directions in Biopharmaceutical Statistics—Invited

Biopharmaceutical Section, *CHANCE*, ENAR
Organizer(s): Robb Muirhead, Statistical Scientist; Byron Jones, Pfizer Inc.
Chair(s): Eve H. Pickering, Pfizer Inc.

8:35 a.m. Balancing Informativeness and Ethics in Clinical Trial Design—◆Valerii Fedorov, GlaxoSmithKline
9:00 a.m. How Statisticians Can Help Bring on Personalized Medicine—◆Terence (Terry) Paul Speed, Walter & Eliza Hall Institute of Medical Research
9:25 a.m. Reference and Prediction Regions in Medical and Pharmaceutical Research—◆Robb Muirhead, Statistical Scientist
9:50 a.m. There's a Bright Future for Quantitative Scientists in the Pharmaceutical Industry—◆L. J. Wei, Harvard University
10:15 a.m. Floor Discussion

274 CC-201 (West)

■ ✪ Adaptive Designs in Clinical Trials—Invited

General Methodology, ENAR, IMS, WNAR
Organizer(s): Anand Vidyashankar, George Mason University
Chair(s): Jeff Collamore, University of Copenhagen

8:35 a.m. Disparity-Aided Robust and Efficient Inference for Adaptive Designs with Covariates—◆Anand Vidyashankar, George Mason University
9:00 a.m. Personalized Medicine Trials in Non-Small Cell Lung Cancer—◆Michael Kosorok, The University of North Carolina at Chapel Hill; Yufan Zhao, Amgen Inc.; Donglin Zeng, The University of North Carolina at Chapel Hill; Mark Socinski, The University of North Carolina at Chapel Hill
9:25 a.m. A Graphical Approach to Multiple Test Procedures for Adaptive Phase II/III Clinical Trials—◆Martin Posch, Medical University of Vienna
9:50 a.m. Disc: William F. Rosenberger, George Mason University
10:10 a.m. Floor Discussion

275 CC-18 (East)

✪ Extreme Values and Sparse Nonparametric Inference—Invited

IMS, Section on Nonparametric Statistics, Section on Physical and Engineering Sciences
Organizer(s): Anirban DasGupta, Purdue University
Chair(s): Tony Cai, University of Pennsylvania

8:35 a.m. Modeling the Variability of Rankings—◆Peter Hall, The University of Melbourne
9:05 a.m. Extreme Eigenvalues and Sparse Eigenvectors for Large Covariance Matrices—◆Iain Johnstone, Stanford University
9:35 a.m. Superconcentration Leads to Chaos—◆Sourav Chatterjee, University of California, Berkeley
10:05 a.m. Floor Discussion

276 CC-120 (West)

■ Methodological Issues in the Meta-Analysis of Observational Studies—Invited

SSC, Biometrics Section, ENAR, IMS, Health Policy Statistics Section, Section on Survey Research Methods
Organizer(s): Karla M.P. Fox, Statistics Canada
Chair(s): David Dolson, Statistics Canada

8:35 a.m. Methodological Issues in the Meta-Analysis of Observational Studies—◆Lauren Griffith, McMaster University
9:00 a.m. Issues in the Meta-Analysis of Observational Data—◆George A. Wells, University of Ottawa Heart Institute
9:25 a.m. A Framework for the Meta-Analysis of Survey Data—◆Karla M.P. Fox, Statistics Canada
9:50 a.m. Disc: Dave Binder, Statistics Canada
10:10 a.m. Floor Discussion

277 CC-223 (West)

■ The Quantified Self: Personal Data Collection, Analysis, and Exploration—Invited

Section on Statistical Graphics, Section for Statistical Programmers and Analysts, Section on Statistical Computing
Organizer(s): Hadley Wickham, Rice University
Chair(s): Hadley Wickham, Rice University

8:35 a.m. The Macroscope—◆Gary Wolf, Aether
9:05 a.m. Discovering Causal Relationships with Self-Tracking—◆Seth Roberts, Tsinghua University
9:35 a.m. Personal Data for Nonprofessionals—◆Nathan Yau, University of California, Los Angeles
10:05 a.m. Floor Discussion

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278 CC-109 (West)

Double Protection When Adjusting for Nonresponse in Surveys—Invited

Section on Survey Research Methods, Health Policy Statistics Section, WNAR
Organizer(s): Phillip S. Kott, RTI International
Chair(s): Ralph E. Folsom, RTI International

8:35 a.m.	Doubly Robust Inference with Estimated Propensity Scores—◆Jae-Kwang Kim, Iowa State University; David Haziza, Université de Montréal
9:00 a.m.	Weights, Double Protection, and Multiple Imputation—Ralph E. Folsom, RTI International; ◆Phillip S. Kott, RTI International
9:25 a.m.	Providing Double Protection for Unit Nonresponse with a Nonlinear Calibration Routine—◆George Gordon Brown, RTI International
9:50 a.m.	Disc: Wayne A. Fuller, Iowa State University
10:10 a.m.	Floor Discussion

Invited Panels 8:30 a.m.–10:20 a.m.

279 CC-118 (West)

■ ✪ The U.S. Federal Statistical System 2.0: Future Directions—Invited

Section on Government Statistics, Business and Economic Statistics Section, Section on Survey Research Methods, Social Statistics Section
Organizer(s): Rochelle (Shelly) Wilkie Martinez, Office of Management and Budget
Chair(s): Katherine K. Wallman, Office of Management and Budget

Panelists:	◆Steve Landefeld, Bureau of Economic Analysis
	◆Robert M. Groves, U.S. Census Bureau
	◆Edward J. Sondik, National Center for Health Statistics
	◆Hermann Habermann, United Nations Statistics Division
	◆Connie Citro, The National Academies
10:15 a.m.	Floor Discussion

280 CC-224 (West)

Establishing a Career in Statistics Education—Invited

Section on Statistical Education, Section for Statistical Programmers and Analysts, Section on Teaching of Statistics in the Health Sciences
Organizer(s): Joan Garfield, University of Minnesota
Chair(s): Brian Jersky, Marquarie University

Panelists:	◆Dennis Pearl, The Ohio State University
	◆Robert DelMas, University of Minnesota
	◆Herle McGowan, North Carolina State University
	◆Hollylynne Stohl Lee, North Carolina State University
10:15 a.m.	Floor Discussion

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

281 CC-302/303 (West)

■ ✪ Statistical Issues for Proteomics and Biomarker Discovery—Topic-Contributed

Section on Statistical Learning and Data Mining
Organizer(s): Xia Wang, National Institute of Statistical Sciences
Chair(s): Pei Wang, Fred Hutchinson Cancer Research Center

8:35 a.m.	Statistical Analysis Strategies for Shotgun Proteomics Data—◆Ming Li, Vanderbilt University School of Medicine
8:55 a.m.	Developing Targeted Protein Measurement for Label-Free Multiple Reaction Monitoring—◆Dean Billheimer, The University of Arizona
9:15 a.m.	Change-Point Modeling for Concentration and CV in Multiple Reaction Monitoring: Mass Spectrometry Assays—◆Steven James Skates, Massachusetts General Hospital
9:35 a.m.	A Nested Mixture Model for Protein Identification Using Mass Spectrometry—◆Qunhua Li, University of California, Berkeley; Michael MacCoss, University of Washington; Matthew Stephens, The University of Chicago
9:55 a.m.	Inference of Biological Pathway from Gene Expression Profiles by Time Delay Boolean Networks—Tung-Hung Chueh, National Chiao Tung University; ◆Henry Horng-Shing Lu, National Chiao Tung University
10:15 a.m.	Floor Discussion

282 CC-214 (West)

■ ✪ Recent Advances in Group-Testing Methodology—Topic-Contributed

ENAR, IMS

Organizer(s): Joshua Tebbs, University of South Carolina
Chair(s): Joshua Tebbs, University of South Carolina

8:35 a.m. An Improved Test of Latent-Variable Model Misspecification in Structural Measurement Error Models for Group Testing Data—◆Xianzheng Huang, University of South Carolina

8:55 a.m. Analysis Strategies for Pooled Nucleic Acid Testing to Identify Antiretroviral Treatment Failure During HIV Infection—◆Susanne May, University of Washington; Tanya Granston, University of Washington; Davey Smith, University of California, San Diego

9:15 a.m. Group Testing in Heterogeneous Populations Using Halving Algorithms—◆Michael S. Black, University of Nebraska-Lincoln; Christopher R. Bilder, University of Nebraska-Lincoln; Joshua Tebbs, University of South Carolina

9:35 a.m. Group Testing with Correlated Responses—Samuel Lendle, The University of North Carolina at Chapel Hill; ◆Michael G. Hudgens, The University of North Carolina at Chapel Hill

9:55 a.m. Correcting for Bias in Estimating Proportions Using Group Testing—◆Graham Hepworth, The University of Melbourne; Ray Watson, The University of Melbourne

10:15 a.m. Floor Discussion

283 CC-207 (West)

■ ✪ Joint Modeling of Time-to-Event and PROs in Oncology Clinical Trials—Topic-Contributed

Biopharmaceutical Section

Organizer(s): Wei Shen, Eli Lilly and Company; Grace Y. Yi, University of Waterloo
Chair(s): Wei Shen, Eli Lilly and Company

8:35 a.m. Joint Analysis of Symptom and Progression-Free Survival Endpoints in Previously Treated Malignant Pleural Mesothelioma—Michelle D. Hackshaw, Walden University; ◆Mark E. Boye, Eli Lilly and Company; Teena M. West, Eli Lilly and Company; Angela W. Prehn, Walden University; Wei Shen, Eli Lilly and Company; Luping Zhao, Eli Lilly and Company

8:55 a.m. One Scenario in Which Joint Modeling Is Unnecessary—◆Joel A. Dubin, University of Waterloo; Xiaoqin Xiong, University of Waterloo

9:15 a.m. Application of Bayesian Joint Modeling of Time-to-Event and Patient-Reported Outcomes in an Oncology Clinical Trial—◆Luping Zhao, Eli Lilly and Company; Wei Shen, Eli Lilly and Company; Haoda Fu, Eli Lilly and Company; Michelle Denise Hackshaw, Eli Lilly and Company; Mark E. Boye, Eli Lilly and Company

9:35 a.m. A Frailty Model–Based Approach to Estimating the Age-Dependent Penetrance Function of a Gene Mutation Using Family-Based Study Designs—◆Yun-Hee Choi, The University of Western Ontario; Laurent Briollais, Samuel Lunenfeld Research Institute

9:55 a.m. Nonparametric MLE for Doubly Censored Data with Frailty—◆Yu-Ru Su, University of California, Davis; Jane-Ling Wang, University of California, Davis

10:15 a.m. Floor Discussion

284 CC-210 (West)

■ New Developments in Mixture Models and Model-Based Clustering—Topic-Contributed

Biometrics Section, ENAR, WNAR

Organizer(s): Ranjan Maitra, Iowa State University
Chair(s): Ranjan Maitra, Iowa State University

8:35 a.m. Modeling and Clustering of Time-Course Data—◆Alejandro Murua, Université de Montréal

8:55 a.m. Evolutionary Clustering of SNP Haplotypes for Genomewide Association Studies—◆Karin S. Dorman, Iowa State University; Wei-Chen Chen, Iowa State University; Ranjan Maitra, Iowa State University

9:15 a.m. Model-Based Semisupervised Clustering—Volodymyr Melnykov, North Dakota State University; ◆Wei-Chen Chen, Iowa State University; Ranjan Maitra, Iowa State University

9:35 a.m. Mixture Tree Construction and Its Applications—◆Shu-Chuan Chen, Arizona State University

9:55 a.m. Regularized Gaussian Mixture Modeling with Adaptive Covariance Shrinkage—◆Hyang Min Lee, Penn State; Jia Li, Penn State

10:15 a.m. Floor Discussion

285 CC-218/219 (West)

■ ✪ Statistical and Computational Methods for Proteomics and Metabolomics—Topic-Contributed

Biometrics Section

Organizer(s): Sujay Datta, SCHARP (VIDI)
Chair(s): Sujay Datta, SCHARP (VIDI)

8:35 a.m. Quantifying Output from Protein Mass Spectrometry Experiments: An Overview—◆Tim Randolph, Fred Hutchinson Cancer Research Center

8:55 a.m. Normalization and Missing Value Imputation for Proteomics Analysis—◆Yuliya V. Karpievitch, Pacific Northwest National Laboratory

9:15 a.m. Mixed-Effect Models for High-Throughput Mass Spectrometry-Based Proteomic Profiling Experiments—Timothy Clough, Purdue University; Ching-Yun (Veavi) Chang, Purdue University; ◆Olga Vitek, Purdue University

9:35 a.m. Statistical Methods for Ion Mobility Spectrometry: A New Dimension for Proteomics—◆Jeffrey R. Stanley, Texas A&M University

9:55 a.m. Integrative Statistical Methodology for Metabolomics—Francoise Seillier-Moiseiwitsch, Georgetown University Medical Center; ◆Valeriy Korostyshevskiy, Georgetown University Medical Center; Paul Kennedy, Georgetown University Medical Center

10:15 a.m. Floor Discussion

286 CC-209 (West)

■ ✪ Ignore Length-Biased Sampling at Your Peril: New Developments and Applications—Topic-Contributed

Biometrics Section
Organizer(s): Yu Shen, MD Anderson Cancer Center
Chair(s): Yu Shen, MD Anderson Cancer Center

8:35 a.m. Generalizations of Length-Biased Sampling: Novel Applications—◆Marvin Zelen, Harvard School of Public Health

8:55 a.m. Estimating Functionals of Multistate Processes Under Cross-Sectional Sampling—◆Micha Mandel, Hebrew University of Jerusalem

9:15 a.m. Imputation-Based Efficient Estimation Procedures for Length-Biased Data Under Semiparametric Regression Models—◆Hao Liu, Baylor College of Medicine; Jing Qin, National Institute of Allergy and Infectious Diseases; Yu Shen, MD Anderson Cancer Center

9:35 a.m. A Re-examination of the Analysis of Prevalent Cohort Survival Data—◆Marco Carone, Johns Hopkins Bloomberg School of Public Health; Masoud Asgharian, McGill University; Daniel O. Scharfstein, Johns Hopkins Bloomberg School of Public Health

9:55 a.m. Survival Analysis Without Survival Data: Estimation by Comparing Explanatory Variables from Unbiased and Length-Biased Samples—◆Kwun Chuen Gary Chan, University of Washington

10:15 a.m. Floor Discussion

287 CC-121 (West)

■ ✪ Longitudinal Perspectives from SIPP Panel Data—Topic-Contributed

Social Statistics Section, Section on Government Statistics
Organizer(s): Jason Fields, U.S. Census Bureau
Chair(s): Robert Kominski, U.S. Census Bureau

8:35 a.m. Explaining Changes in SIPP Monthly Poverty Rates in the 2004 Panel—◆Robin Anderson, U.S. Census Bureau; Jason Fields, U.S. Census Bureau

8:55 a.m. Child Care and Poverty Dynamics Given the Official and Alternative Poverty Measures—◆Sharon I. O'Donnell, U.S. Census Bureau

9:15 a.m. Defining the 'Working Poor': Theoretical and Empirical Considerations—◆Marina Vornovytskyy, U.S. Census Bureau

9:35 a.m. The Duration and Tenure of Residence: 2004–2008—◆Peter Mateyka, U.S. Census Bureau; Matthew Marlay, U.S. Census Bureau

9:55 a.m. Disc: Daniel Kaspryzyk, Mathematica Policy Research, Inc.

10:15 a.m. Floor Discussion

288 CC-119 (West)

■ ✪ Psychological Statistics and Psychometrics—Topic-Contributed

Social Statistics Section, Biometrics Section, Section on Government Statistics
Organizer(s): Ken Kelley, University of Notre Dame
Chair(s): Ken Kelley, University of Notre Dame

8:35 a.m. On Statistical Properties of a Content Validity-Based Bayesian Approach for Validating Measures of Patient-Reported Outcomes—◆Byron J. Gajewski, The University of Kansas; Valorie Coffland, The University of Kansas School of Nursing; Jamie Leopold, The University of Kansas School of Nursing; Nancy Dunton, The University of Kansas School of Nursing; Diane Boyle, The University of Kansas School of Nursing; Marge Bott, The University of Kansas School of Nursing

8:55 a.m. Logistic Regression with Floor and Ceiling Effects—◆David Rindskopf, CUNY Graduate Center

9:15 a.m. A Multilevel Modeling Approach to Investigating Treatment Effect Variability in Randomized Longitudinal Experiments—◆Joseph Rausch, University of Cincinnati College of Medicine/Cincinnati Children's Hospital

9:35 a.m. Ridge Structural Equation Modeling with Correlation Matrices for Ordinal and Continuous Data—◆Ke-Hai Yuan, University of Notre Dame; Ruilin Wu, Beihang University; Peter M. Bentler, University of California, Los Angeles

9:55 a.m. The Inextricability of Reliability and Interfactor Correlation—Peter H. Westfall, Texas Tech University; ◆Kevin S.S. Henning, Texas Tech University

10:15 a.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

289 CC-215 (West)

■ Challenging Statistical Issues in Medical Device Trials—Topic-Contributed

Biopharmaceutical Section

Organizer(s): Huyuan Yang, Boston Scientific Corporation; Chul Ahn, FDA/CDRH

Chair(s): Chul Ahn, FDA/CDRH

8:35 a.m. Cox Regression Model with Time-Dependant Covariates to Investigate the Impacts of Nonfatal Events on Subsequent Mortality—◆Huyuan Yang, Boston Scientific Corporation; Hong Wang, Boston Scientific Corporation; Heather Bai, Boston Scientific Corporation

8:55 a.m. A Practical Review of Variable Selection Methods—◆Zhen Zhang, Abbott Vascular

9:15 a.m. A Case Study of Issues with Subgroup Analysis for Medical Devices—◆Yao Huang, FDA/CDRH; Yunling Xu, FDA/CDRH

9:35 a.m. Classification and Regression Tree Analysis as an Alternative for Multivariate Regression Modeling: An Application to Medical Device Trials—◆Jian Huang, Boston Scientific Corporation

9:55 a.m. Identifying Temporal Pattern of Adverse Events in Drug-Eluting Stents Studies—◆Aijun Song, Boston Scientific Corporation; Huyuan Yang, Boston Scientific Corporation; Hsini Terry Liao, Boston Scientific Corporation; Jeff Hersh, Boston Scientific Corporation

10:15 a.m. Floor Discussion

290 CC-13 (East)

■ Climate Extremes and Paleoclimate—Topic-Contributed

Section on Statistics and the Environment

Organizer(s): Richard Smith, The University of North Carolina at Chapel Hill

Chair(s): Richard Smith, The University of North Carolina at Chapel Hill

8:35 a.m. A Bayesian Model for Inferring Prehistoric Temperatures from Natural Proxies—◆Martin Tingley, Statistical and Applied Mathematical Sciences Institute; Peter Huybers, Harvard University; Konrad Hughern, Woods Hole Oceanographic Institution

8:55 a.m. Spatial Hierarchical Models for Extremes: Modeling Both Climate and Weather Effects—◆Daniel Cooley, Colorado State University

9:15 a.m. Paleoclimate Extremes in Proxy Data—◆Elizabeth C. Mannshardt-Shamseldin, Statistical and Applied Mathematical Sciences Institute

9:35 a.m. A Penalized Pointwise Likelihood Approach for m-Year Precipitation Return Values Estimation Based on Regional Climate Model Output—◆Jun Zhang, Statistical and Applied Mathematical Sciences Institute; Wei Zheng, Eli Lilly and Company

9:55 a.m. Paleoclimatic Reconstruction of Annual Precipitation in the East, North, and Central Division of Midwest Region: A Bayesian Hierarchical Model for Sparse Spatial Data—◆Rajib Paul, Western Michigan University; Kwok Wai Lau, CSIRO; William R. VanHove, Western Michigan University

10:15 a.m. Floor Discussion

291 CC-10 (East)

■ Novel Priors for Spatial/Temporal Effects in Bayesian Hierarchical Models with Applications in Health and Environmental Studies—Topic-Contributed

Section on Bayesian Statistical Science, Biometrics Section
Organizer(s): Chin-I Cheng, Central Michigan University
Chair(s): Bin Zhang, The University of Alabama at Birmingham

8:35 a.m. A Deaggregating Method for the Areal Data with Bivariate CAR Priors—◆Ye Liang, University of Missouri; Dongchu Sun, University of Missouri; Zhuoqiong He, University of Missouri; Mario Schootman, Washington University in St. Louis

8:55 a.m. A Hierarchical Bayesian Model of Learning in the Acquisition of a Skill—◆Jun Lu, American University; Dongchu Sun, University of Missouri; Paul Speckman, University of Missouri-Columbia; Jeff Rouder, University of Missouri

9:15 a.m. Bayesian Nonparametric Intensity Estimation for Inhomogeneous Spatial Point Processes—◆Yu Ryan Yue, Baruch College, CUNY; Ji Meng Loh, AT&T Labs - Research

9:35 a.m. Bayesian Smoothing Spline ANOVA Model—Paul Speckman, University of Missouri-Columbia; ◆Chin-I Cheng, Central Michigan University

9:55 a.m. Disc: Jing Zhang, Miami University

10:15 a.m. Floor Discussion

292 CC-111/112 (West)

Methodological Issues in Measuring and Estimating Health Care Use—Topic-Contributed

Health Policy Statistics Section, Biometrics Section, ENAR, Section on Survey Research Methods
Organizer(s): Steven Machlin, AHRQ
Chair(s): Trena Ezzati-Rice, AHRQ

8:35 a.m. Methodological Comparison of Estimates of Ambulatory Health Care Use from the Medical Expenditure Panel Survey and Other Data Sources—Jeff Rhoades, AHRQ; ◆Joel Cohen, AHRQ; Steven Machlin, AHRQ

8:55 a.m. Evaluation of Health Care Utilization Data from the National Survey on Drug Use and Health—◆Jonaki Bose, Substance Abuse and Mental Health Services Administration; Joe Gfroerer, Substance Abuse and Mental Health Services Administration; Michael Pemberton, RTI International

9:15 a.m. Methodological Evaluation of the Use of Hospital Billing Data for the Analysis of Emergency Department Encounters—Ryan Mutter, AHRQ; ◆Steven Machlin, AHRQ; Pamela Owens, AHRQ

9:35 a.m. Application of Small-Area Estimation Methods to Emergency Department Data from the National Hospital Ambulatory Medical Care Survey—◆Vladislav M. Beresovsky, National Center for Health Statistics; Cathy Burt, National Center for Health Statistics; Van Parsons, National Center for Health Statistics; Nathaniel Schenker, National Center for Health Statistics

9:55 a.m. Assessing the Accuracy of Prescription Drug Data for Medicare Beneficiaries in the Medical Expenditure Panel Survey—◆Marc Zodet, AHRQ; Samuel Zuvekas, AHRQ; Steven Hill, AHRQ; Edward Miller, AHRQ

10:15 a.m. Floor Discussion

293 CC-122 (West)

■ ✪ Innovations in Substance Use Data Analysis: Marginal Structural Models, Multilevel Models, and Latent Class Analysis—Topic-Contributed

Health Policy Statistics Section, Section on Survey Research Methods
Organizer(s): Susan Paddock, RAND Corporation
Chair(s): Rui Wang, Harvard School of Public Health

8:35 a.m. Assessing Concurrent Effects of Substance Abuse Treatment Modalities Using Marginal Structural Models—Beth Ann Griffin, RAND Corporation; ◆Rajeev Ramchand, RAND Corporation; Cha-Chi Fan, RAND Corporation; Daniel Almirall, University of Michigan; Daniel F. McCaffrey, RAND Corporation

8:55 a.m. Understanding Time-Varying Moderation Effects When Evaluating Substance Abuse Treatment Modalities Using Structural Nested Mean Models—◆Daniel Almirall, University of Michigan; Dan Nettleton, Iowa State University; Cha-Chi Fan, RAND Corporation; Beth Ann Griffin, RAND Corporation; Daniel F. McCaffrey, RAND Corporation

9:15 a.m. Analysis of Rolling Group Therapy Data Using Conditionally Autoregressive Priors—◆Susan Paddock, RAND Corporation; Sarah Hunter, RAND Corporation; Katherine Watkins, RAND Corporation; Daniel F. McCaffrey, RAND Corporation

9:35 a.m. Latent Class-Profile Analysis: An Application to Stage-Sequential Process of Under-Age Drinking Behaviors—◆Hwan Chung, Ewha Womans University

9:55 a.m. Inclusion of Covariates for Class Enumeration of Growth Mixture Models—◆Libo Li, University of California, Los Angeles Integrated Substance Abuse Programs; Yih-ing Hser, University of California, Los Angeles Integrated Substance Abuse Programs

10:15 a.m. Floor Discussion

294 CC-14 (East)

Resiliency of Agriculture and Natural Resources to Climate Change and Variability—Topic-Contributed

SSC

Organizer(s): Luke Bornn, The University of British Columbia
Chair(s): Song Cai, The University of British Columbia

8:35 a.m. Functional Data Analysis of the Trends and Predictors of Climate in BC—◆Simon Joseph Bonner, The University of British Columbia; Nathaniel Kenneth Newlands, Agriculture and Agri-Food Canada; Budong Qian, Agriculture and Agri-Food Canada; Nancy Heckman, The University of British Columbia

8:55 a.m. Predicting Crop Yield in the Canadian Prairies—◆Luke Bornn, The University of British Columbia; Jim Zidek, The University of British Columbia

9:15 a.m. Extending the Multivariate Probit Model to Accomodate Spatial Data—◆Aline Tabet, The University of British Columbia

9:35 a.m. Bayesian Model Averaging for Improved Prediction of Soil Moisture and Crop Yield from Agro-Ecosystem Models—◆Reza Hosseini, Simon Fraser University; Gabriela Espino-Hernandez, The University of British Columbia; Nathaniel Kenneth Newlands, Agriculture and Agri-Food Canada

9:55 a.m. Disc: Jürgen Pilz, University Klagenfurt

10:15 a.m. Floor Discussion

Contributed Sessions 8:30 a.m.–10:20 a.m.

295 CC-217 (West)

■ ✪ Genetic Interactions—Contributed

Biometrics Section

Chair(s): V. Shane Pankratz, Mayo Clinic

8:35 a.m. Testing for Gene-Environment and Gene-Gene Interactions Under Monotonicity Constraints—◆Summer S. Han, National Cancer Institute; Philip S. Rosenberg, National Cancer Institute; Nilanjan Chatterjee, National Cancer Institute

8:50 a.m. Stepwise Paring Down Variation for Identifying Influential Multifactor Interactions—◆Jing-Shiang Hwang, Academia Sinica

9:05 a.m. Incorporating Nonlinear Relationships in Microarray Missing Value Imputation—◆Hesen Peng, Emory University; Tianwei Yu, Emory University; Wei Sun, The University of North Carolina at Chapel Hill

9:20 a.m. Exploiting Interaction Information in Detecting Loci That Influence Complex Diseases—◆Kuang-Fu Cheng, China Medical University; Jen-Yu Lee, National Central University, Taiwan; Jin-Hua Chen, China Medical University

9:35 a.m. A Nonparametric Test to Detect Both Direct and Indirect Associations for Multivariate Responses—◆Yuan Jiang, Yale University; Wensheng Zhu, Yale University; Heping Zhang, Yale University

9:50 a.m. A Bayesian Approach for Detection of Multilocus Interaction in Case Control Studies—◆Saonli Basu, University of Minnesota

10:05 a.m. Floor Discussion

296 CC-205 (West)

■ Causal Inference and Matching—Contributed

Biometrics Section

Chair(s): Susan Stewart, University of California, San Francisco

8:35 a.m. A Bayesian Semiparametric Approach to Causal Inference with Intermediate Variables—◆Fan Li, Duke University; Scott Schwartz, Duke University; Fabrizia Mealli, University of Florence

8:50 a.m. A Doubly Robust Estimator of the Attributable Benefit of a Dynamic Treatment Regime—◆Jason Brinkley, East Carolina University; Anastasios Tsiatis, North Carolina State University

9:05 a.m. Effect Size in Mediation Analysis—◆Elizabeth Newton, Institute for Aging Research

9:20 a.m. Propensity Score Matching in Randomized Clinical Trials—◆Zhenzhen Xu, University of Michigan; John David Kalbfleisch, University of Michigan

9:35 a.m. Balancing the Optimal Match: A Clever Swap—◆Shoshana R. Daniel, Covance Inc.

9:50 a.m. A Random Bandwidth of Caliper Matching in Propensity Score Analysis—◆Wei Pan, University of Cincinnati; Haiyan Bai, University of Central Florida

10:05 a.m. Latent Variable Modeling for Principal Stratification Analyses of Longitudinal Studies—◆Chen-Pin Wang, The University of Texas Health Science Center at San Antonio

297 CC-204 (West)

Random Effects and Other Regression Models—Contributed

Biometrics Section

Chair(s): Lawrence H. Muhlbaier, Duke University Medical Center

8:35 a.m. Nonlinear Varying Coefficient Models—◆Esra Kurum, Penn State; Yang (Rick) Wang, Freddie Mac; Runze Li, Penn State; Damla Senturk, Penn State

8:50 a.m. Sampling Error in Generalizability Theory—◆Ye Tong, Pearson

9:05 a.m. Robust Two-Stage Modeling with Finite Mixture Conditional Distributions—◆Tingting Zhan, Temple University; Inna Chervoneva, Thomas Jefferson University; Boris Iglewicz, Temple University

9:20 a.m. Multiple Imputation for Regression Models with Interaction—◆Soeun Kim, University of California, Los Angeles; Thomas R. Belin, University of California, Los Angeles; Catherine A. Sugar, University of California, Los Angeles School of Public Health

9:35 a.m. Partial Envelopes: A Focused Method for Efficient Estimation in Multivariate Linear Regression—◆Zhihua Su, University of Minnesota; Ralph Dennis Cook, University of Minnesota

9:50 a.m. Floor Discussion

298 CC-213 (West)

Forecasting and Model Comparison—Contributed

Business and Economic Statistics Section

Chair(s): Ali Shojaie, University of Michigan

8:35 a.m. Limit Theory for Comparing Overfit Models Out-of-Sample—◆Gray Calhoun, Iowa State University

8:50 a.m. Autocontour-Based Evaluation of Out-of-Sample Density Forecasts—◆Emre Yoldas, Bentley University; Gloria Gonzalez-Rivera, University of California, Riverside

9:05 a.m. Statistical Modeling and Inference with Uncertainty in Part of Historical Data—◆Jerry Shan, Hewlett-Packard

9:20 a.m. Complexity and Model Selection in Macroeconomic Forecasting with DSGE Models—◆Daniel McDonald, Carnegie Mellon University

9:35 a.m. Measuring Output Gap Uncertainty—◆Shaun Vahey, ANU; James Mitchell, NIESR; Anthony Garratt, Birkbeck College

9:50 a.m. Robust Inference in Predictive Regressions—◆Paulo M.M. Rodrigues, Banco de Portugal; Antonio Rubia, University of Alicante

10:05 a.m. Modeling the Dynamics of Corporate Credit Ratings: Creating a Predictive Ratings Model—◆Meghan Rachel Kent, North Carolina State University; Terri Anna Johnson, North Carolina State University; Nicole Bader, North Carolina State University; Jenna Rice, North Carolina State University

299 CC-212 (West)

✪ Inference for Structured Models—Contributed

Business and Economic Statistics Section

Chair(s): Vadim Marmer, The University of British Columbia

8:35 a.m. Neural Networks for Time Series Prediction: Practical Implications of Theoretical Results—◆Melinda F. Thielbar, North Carolina State University; David A. Dickey, North Carolina State University

8:50 a.m. Nonparametric Tests for Conditional Independence Using Conditional Distributions—◆Taoufik Bouezmarni, McGill University; Roch Roy, Université de Montréal; Abderrahim Taamouti, Universidad Carlos III de Madrid

9:05 a.m. Modeling Threshold Conditional Heteroscedasticity with Regime-Dependent Skewness and Kurtosis—◆Wai Keung Li, The University of Hong Kong

9:20 a.m. Outliers in GARCH Models and the Estimation of Risk Measures—◆Helena Veiga, Universidad Carlos III de Madrid

9:35 a.m. The Sampling Distribution of the W Estimator of the Number of Valid Signatures on a Petition—◆Mark E. Eakin, The University of Texas at Arlington; Mary M. Whiteside, The University of Texas at Arlington

9:50 a.m. Floor Discussion

300 CC-208 (West)

■ ✪ Data Measurement—Contributed

Business and Economic Statistics Section

Chair(s): Baoline Chen, Bureau of Economic Analysis

8:35 a.m. Aligning Survey Estimates of Employment in Expanding and Contracting Establishments with Population Counts: Preliminary Issues and Methods—◆Michael Roosma, Bureau of Labor Statistics; Kenneth W. Robertson, Bureau of Labor Statistics; James Spletzer, Bureau of Labor Statistics

8:50 a.m. Improving the Preliminary Values of the Chained CPI-U—◆John Shearer Greenlees, Bureau of Labor Statistics

9:05 a.m. Experimental PPI Index Aggregation Systems with Services and Construction Price Indexes—◆Jonathan Weinhagen, Bureau of Labor Statistics

9:20 a.m. Sampling and Weighting of Commodity and Service Units for the Elementary Level of Computation of the U.S. Consumer Price Index—◆Mary Lee Fuxa, Bureau of Labor Statistics

9:35 a.m. An Empirical Comparison of Constrained Optimization Methods for Benchmarking Economic Time Series—◆Irene Brown, U.S. Census Bureau

9:50 a.m. Measuring Inflation Expectations Using Interval-Coded Data—◆Yasutomo Murasawa, Osaka Prefecture University

10:05 a.m. Assessing the Impact of Missing Data on Variance Estimates for the Medical Expenditures Panel Survey: Insurance Component (MEPS-IC)—◆Matthew Thompson, U.S. Census Bureau; Anne Kearney, U.S. Census Bureau

301 CC-202 (West)

■ ✪ Biostatistics and Complex Clinical Design—Contributed

IMS

Chair(s): Qian Zhou, Harvard School of Public Health

8:35 a.m. Identifying Genes Under Selection Using Generalized Linear Mixed Models—◆Kirsten Elise Eilertson, Cornell University; Jim Booth, Cornell University; Carlos Bustamante, Stanford University

8:50 a.m. Combination of Confidence Distributions (CDs) and an Efficient Approach for Meta-Analysis of Heterogeneous Studies—◆Dungang Liu, Rutgers University; Regina Liu, Rutgers University; Minge Xie, Rutgers University

9:05 a.m. Estimation in an Additive Transformation Model for Multistate Models—◆Dorota M. Dabrowska, University of California, Los Angeles

9:20 a.m. Estimation of Treatment Effect Following a Clinical Trial with Adaptive Design—◆Xiaolong Luo, Celgene Corporation; Peter Ouyang, Celgene Corporation

9:35 a.m. The NPMLE of the Joint Distribution Function with Right-Censored and Masked Competing Risks Data—◆Qiqing Yu, Binghamton University

9:50 a.m. Distribution-Free Models for Latent Population Mixtures—◆Hui Zhang, University of Rochester Medical Center

10:05 a.m. Admissibility of Naive Estimator Under LINEX Loss in a Two-Stage Design—◆AnqiI Sun, University of Florida; Mark Yang, University of Florida

302 CC-9 (East)

■ Markov Chain Monte Carlo: Applications and Improvements—Contributed

Section on Bayesian Statistical Science

Chair(s): Garritt Page, Duke University

8:35 a.m. Achieving Accurate Computation in Bayesian Scale-Usage Models—◆Chris Hans, The Ohio State University; Greg Allenby, The Ohio State University; Peter F. Craigmile, The Ohio State University; Ju Hee Lee, The Ohio State University; Steven MacEachern, The Ohio State University; Xinyi Xu, The Ohio State University

8:50 a.m. Automated Factor Slice Sampling—◆Matthew Tibbits, Penn State; Chris Groendyke, Penn State; Murali Haran, Penn State

9:05 a.m. MCMC Model Composition Strategy in a Hierarchical Setting—◆Susan Simmons, University of North Carolina Wilmington; Qijun Fang, The University of Arizona; Fang Fang, The University of Arizona; Ann Stapleton, University of North Carolina Wilmington; Karl Ricanek, University of North Carolina Wilmington

9:20 a.m. Bayesian Estimation of Pair Copula Constructions with Discrete Margins—◆Anastasios Nicholas Panagiotelis, Technische Universitaet Muenchen; Claudia Czado, Technische Universitaet Muenchen

9:35 a.m. MCMC Algorithms for Bayesian Models Involving Binary Data—◆Santanu Pramanik, NORC; Edward Mulrow, NORC

9:50 a.m. Wavelet-Based Power Transformation for Long Memory Regression Models with non-Gaussian Errors—◆Kyungduk Ko, Boise State University

10:05 a.m. Bayesian Inference Using Interpolation of Computationally Expensive Densities with Variable Parameter Costs—◆Nikolay Bliznyuk, Texas A&M University

303 CC-15 (East)

Bayesian Nonparametric Methods—Contributed

Section on Bayesian Statistical Science

Chair(s): Xiaohui Wang, The University of Texas-Pan American

8:35 a.m. The Polya Tree Sampler: Towards Efficient and Automatic Independent Metropolis Proposals—◆Alejandro Jara, Pontificia Universidad Católica de Chile; Timothy Edward Hanson, University of Minnesota; Joao Monteiro, University of Minnesota

8:50 a.m. A Probability for Classification Based on the Mixture of Dirichlet Process Model—◆Ruth Fuentes-Garcia, Universidad Nacional Autónoma de México; Ramses Mena, IIMAS-UNAM; Stephen Graham Walker, University of Kent

9:05 a.m. Nonparametric Bayesian Methods for Measurement Error Problem in Matched Case-Control Studies—◆Nels Johnson, Virginia Tech; Inyoung Kim, Virginia Tech

9:20 a.m. Posterior Consistency of Nonparametric Conditional Moment Restricted Models—◆Yuan Liao, Northwestern University; Wenxin Jiang, Northwestern University

9:35 a.m. Nonparametric Bayesian Estimation of an Unknown Dose—◆Bahman Shafii, University of Idaho; William James Price, University of Idaho

9:50 a.m. Bayesian Nonparametric Regression Model for Censored Data Using Bernstein Polynomial—◆Muhtarjan Osman, North Carolina State University; Sujit Kumar Ghosh, North Carolina State University

10:05 a.m. Floor Discussion

304 CC-116 (West)

■ ✪ Statistical Applications Pertaining to Data Disclosure—Contributed

Section on Government Statistics, Social Statistics Section
Chair(s): Carrie Dennis, U.S. Census Bureau

8:35 a.m. Beyond Technical Confidentiality: Enabling Interagency Data Sharing as a Means of Enhancing Regional Governance—◆Robert Arthur Ravenscroft King, University of Newcastle

8:50 a.m. Survey Weights in Public Use Files—◆Satkartar Kinney, National Institute of Statistical Sciences; Alan Karr, National Institute of Statistical Sciences

9:05 a.m. Sharing Precise Geographies in Public Use Data—◆Hao Wang, Duke University; Jerome P. Reiter, Duke University

9:20 a.m. Steps Toward Creating a Fully Synthetic Decennial Census Microdata File—◆Martin Klein, U.S. Census Bureau; Robert Creecy, U.S. Census Bureau

9:35 a.m. Algebraic Statistics Framework for Causal Inference and Data Privacy with Discrete Data—◆Aleksandra B. Slavkovic, Penn State; Vishesh Karwa, Penn State

9:50 a.m. Floor Discussion

305 CC-17 (East)

Advances in Distribution Theory and Applications—Contributed

Section on Nonparametric Statistics
Chair(s): James Lynch, University of South Carolina

8:35 a.m. The Variability of *p*-Values—◆Dennis D. Boos, North Carolina State University

8:50 a.m. Association of Zero-Inflated Continuous Distributions—◆Magdalena Niewiadomska-Bugaj, Western Michigan University; Ronald Pimentel, MPI Research

9:05 a.m. L-Moment Estimates for a Subset of the Pearson Class—◆Roger W. Johnson, South Dakota School of Mines & Technology

9:20 a.m. Improved Minimax Lower Bound for Sparse Approximation Sets—◆Kyoung Hee Kim, Yale University; Harrison Huibin Zhou, Yale University

9:35 a.m. Testing the Normality of Linear Combination of Variables—◆Yihao Deng, Indiana University Purdue University Fort Wayne; Chand Chauhan, Indiana University Purdue University Fort Wayne

9:50 a.m. Floor Discussion

306 CC-16 (East)

Topics in Regression Analysis—Contributed

Section on Nonparametric Statistics
Chair(s): Moulinath Banerjee, University of Michigan

8:35 a.m. Bayesian Dynamic Analysis of Nonparametric Panel Data Models with Individual-Time Heterogeneity—◆Sylvie Tchumtchoua, University of Connecticut; Dipak K. Dey, University of Connecticut

8:50 a.m. TreeMARS Models for Use in Stochastic Dynamic Programming Framework—◆Subrat Sahu, The University of Texas at Arlington; Victoria Chen, The University of Texas at Arlington; Seoung Bum Kim, Korea University

9:05 a.m. Functional Regression for General Exponential Families and the Applications in Financial Economics—◆Wei Dou, Yale University; Harrison Huibin Zhou, Yale University; David Pollard, Yale University

9:20 a.m. Constrained Smoothing of Scatterplots with Applications to Mass Spectrometry Data—◆Xingdong Feng, National Institute of Statistical Sciences; Nell Sedransk, National Institute of Statistical Sciences

9:35 a.m. A Bayesian Approach to Fitting Mixed Models Using Shape-Restricted Regression Splines—◆Amber Hackstadt, Colorado State University; Mary Meyer, Colorado State University; Jennifer A. Hoeting, Colorado State University

9:50 a.m. Least Squares Estimation of Two Ordered Monotone Regression Curves—◆Kaspar Rufibach, University of Zurich; Fadoua Balabdaoui, Universite Paris-Dauphine; Filippo Santambrogio, Universite Paris-Dauphine

10:05 a.m. Extending the GLM for Analyzing fMRI Data to a Constrained Multivariate Regression Model—◆Rajesh Ranjan Nandy, University of California, Los Angeles

307 CC-203 (West)

■ ✪ Forecasting, Response Modeling, and Solving Mysteries—Contributed

Section on Physical and Engineering Sciences

Chair(s): Peter William Hovey, University of Dayton/Air Force Academy

8:35 a.m. Forecasting Emergency Medical Service Call Arrival Rates—◆David S. Matteson, Cornell University; Mathew W. McLean, Cornell University; Dawn B. Woodard, Cornell University; Shane Henderson, Cornell University

8:50 a.m. A Normal-Based Monotone Convex Transformation, with Continuous Convexity, as an Alternative to the Concept of 'Distribution'?—◆Haim Shore, Ben-Gurion University of the Negev

9:05 a.m. Semi-MLE Algorithm for RMM Distribution and Comparison of Pearson Distribution System and RMM as Platforms for Distribution Fitting—◆Michal Shauly, Ben-Gurion University of the Negev; Yisrael Parmet, Ben-Gurion University of the Negev; Haim Shore, Ben-Gurion University of the Negev

9:20 a.m. Profile Data in the Food Industry—◆Eric Lagergren, Kraft Foods; Wu Ge, Kraft Foods; Mahesh Padmanabhan, Kraft Foods

9:35 a.m. A New Look at Kendall's Cosine Quantogram: The Key to Unlocking Ancient Mysteries on Samothrace?—◆Vicki Stover Hertzberg, Emory University; Bonna Daix Wescoat, Emory University; S. Margueritte Cox, Emory University; Paul Weiss, Emory University

9:50 a.m. Improved Statistical Modeling of Power Outages During Hurricanes in the United States—◆Roshi Nateghi, The Johns Hopkins University; Seth Guikema, The Johns Hopkins University; Steven Quiring, Texas A&M University

10:05 a.m. Floor Discussion

308 CC-221 (West)

Assessing and Relaxing Model Assumptions—Contributed

Section on Statistical Computing

Chair(s): Sudipto Banerjee, University of Minnesota

8:35 a.m. A Proposed Goodness-of-Fit Test for the Assumptions of a Poisson Process—Bob McQuaid, Pepperdine University; Kellie Keeling, University of Denver; ◆Robert Pavur, University of North Texas

8:50 a.m. Remarks on the Test of Multivariate Normality by Union Intersection Principle—Chun-Chao Wang, National Taipei University; ◆Yi-Ting Hwang, National Taipei University

9:05 a.m. A Robust Approach to Linear Mixed Effects Models Based on the Skew t Distribution—◆Tsung-I Lin, National Chung Hsing University; Hsiu J. Ho, National Chung Hsing University

9:20 a.m. Effects of Departures from Assumptions Underlying the Analysis of Variance Model—◆Mohammed Ibrahim Ageel, Najran University

9:35 a.m. Mixture Model Component Trees: A Visualization Tool for Merging Clusters—◆Rebecca Nugent, Carnegie Mellon University; Nema Dean, University of Glasgow

9:50 a.m. On Testing a General Linear Hypothesis Under Heteroscedasticity and Its Application—◆Hubert Janpeing Chen, National Cheng Kung University

10:05 a.m. An Outlier-Robust Fit for Generalized Additive Models with Applications to Outbreak Detection—◆Matias Salibián-Barrera, The University of British Columbia; Azadeh Alimadad, Simon Fraser University

309 CC-220 (West)

Penalization and Projection—Contributed

Section on Statistical Computing

Chair(s): Scotland Leman, Virginia Tech

8:35 a.m. Implementation of a New pdMat Class of Variance Covariance Structures for Random Effects in R—◆Andrzej T. Galecki, University of Michigan; Tomasz Burzykowski, Hasselt University

8:50 a.m. Free-Knot Regression Spline Regression with Dirichlet Process Mixture Errors—Huaiye Zhang, Virginia Tech; ◆Inyoung Kim, Virginia Tech

9:05 a.m. Knot Selection for Least Squares and Penalized Splines—◆Steven Spiriti, Arizona State University; Randall Eubank, Arizona State University; Philip Smith, Texas Tech University; Dennis Young, Arizona State University

9:20 a.m. Tolerance Factors in Multiple and Multivariate Linear Regressions—◆Sumona Mondal, Clarkson University; Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette

9:35 a.m. Empirical Influence Functions for Robust Partial Least Squares Regression—◆Asuman Seda Turkmen, The Ohio State University; Nedret Billor, Auburn University

9:50 a.m. Geometry of Generalized Linear Models—◆George Terrell, Virginia Tech

10:05 a.m. Estimation of Mixture of Varying Coefficient Models—◆Xianming Tan, Penn State

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310 CC-222 (West)

Reform and Innovation in the Teaching of Statistics—Contributed

Section on Statistical Education
Chair(s): Leigh Slauson, Capital University

8:35 a.m. Reform and Renewal in the Introductory Statistics Courses—◆Ron Barnes, University of Houston-Downtown; Anna Simmons, University of Houston-Downtown; Nancy Leveill, University of Houston-Downtown

8:50 a.m Some Thoughts on an Introductory Statistics Course—◆Andrew Neath, Southern Illinois University Edwardsville

9:05 a.m. Implementing Modern Pedagogical Guidelines in Business Statistics: Challenges and Possible Solutions—◆Bodapati V.R. Gandhi, University of Puerto Rico at Mayaguez

9:20 a.m. Framing Specific Hypotheses: What's the Alternative?—◆Daniel Theodore Kaplan, Macalester College

9:35 a.m. A Second Course in Statistics: Linear Statistical Models—◆David Gurney, Southeastern Louisiana University

9:50 a.m. An Open-Source Textbook for Introductory Statistics—◆David Mark Diez, University of California, Los Angeles; Christopher D. Barr, Harvard University

10:05 a.m. Professional Organizations in the Learning of Statistics After College—◆Jorge Luis Romeu, Syracuse University

311 CC-216 (West)

■ Surveillance—Contributed

Section on Statistics in Defense and National Security
Chair(s): Jeffrey Solka, Naval Surface Warfare Center

8:35 a.m. Time-Varying Parameters in Mixture Models—◆Yorghos Tripodis, Boston University; Kleoniki Vlachou, University of Maryland; David J. Lovell, University of Maryland

8:50 a.m. Cluster Analysis Investigation of Video Streams and Archives—◆Brett Amidan, Pacific Northwest National Laboratory; Harold Trease, Pacific Northwest National Laboratory

9:05 a.m. Is Terrorism Contagious? Modeling Indonesian Terrorism with Self-Exciting Hurdle Models—◆Michael David Porter, SPADAC; Gentry White, Institute for Social Science Research

9:20 a.m. A Penalized Regression Approach in Detection of Nuclear Materials in Shipment to the United States—◆Xueying Chen, Rutgers University; Jerry Cheng, Rutgers University; Minge Xie, Rutgers University

9:35 a.m. Calculating the Confidence That an Area Is Uncontaminated When Sample Results Are Subject to False Negatives—◆Greg F. Piepel, Battelle/PNNL; Brett Amidan, Pacific Northwest National Laboratory

9:50 a.m. Reversed Sequential Probability Ratio Test (RSPRT) for Delineating Radiological Anomalies from Survey Data—◆Ding Yuan, Remote Sensing Laboratory; Paul P. Guss, Remote Sensing Laboratory

10:05 a.m. Estimation of Mercury in Fish—◆Pepi Lacayo, U.S. Environmental Protection Agency

312 CC-206 (West)

■ Epidemiologic Studies of Obesity and Cancer—Contributed

Section on Statistics in Epidemiology, Biometrics Section
Chair(s): Min Chen, Yale University

8:35 a.m. Plausible 'Nuisance' Contributor to Decreasing Deleterious Association of Overweight and Obese on Mortality Rate Over Calendar Time—◆Tapan Mehta, The University of Alabama at Birmingham; Nicholas Pajewski, The University of Alabama at Birmingham; Scott Keith, Thomas Jefferson University; Kevin Fontaine, The Johns Hopkins University School of Medicine; David B. Allison, The University of Alabama at Birmingham

8:50 a.m. Estimating Reduction in Absolute Breast Cancer Risk in Individuals and Populations from Modifying Risk Factors—◆Elisabetta Petracci, Institute of Medical Statistics and Biometry; Adriano Decarli, Institute of Medical Statistics and Biometry; Domenico Palli, Scientific Institute of Tuscany; Giovanna Masala, Scientific Institute of Tuscany; David Pee, Information Management Service Inc.; Ruth Pfeiffer, National Cancer Institute; Catherine Schairer, Division of Cancer Epidemiology and Genetics; Mitchell H. Gail, National Cancer Institute

9:05 a.m. Estimating Colorectal Cancer Screening in the Presence of Missing Data in a Population with a Resistant Subset and Multiple Observations—◆Yolanda Cecile Hagar, University of California, Davis; Laurel Beckett, University of California, Davis; Danielle Harvey, University of California, Davis School of Medicine; Joshua Fenton, University of California, Davis School of Medicine

9:20 a.m. An Assessment of Quality of Life Among Breast Cancer Survivors in Punjab Using Ordinal Regression—◆Shahid Kamal, University of the Punjab; Ghausia Masood Gilani, University of the Punjab; Rehan Ahmad Khan, University of the Punjab; Afza Rasul, University of the Punjab

9:35 a.m. Modeling Treatment Efficacy Under Screening—◆Shih-Yuan Lee, University of Michigan; Alexander Tsodikov, University of Michigan

9:50 a.m. Conditional Risk Evaluation for Obesity-Related Diseases—◆William R. VanHove, Western Michigan University; Rajib Paul, Western Michigan University; Luis H. Toledo-Pererya, Michigan State University/Kalamazoo Center for Medical Studies

10:05 a.m. BMI, Alcohol, Prostate Cancer, and Mortality Follow-Up—◆Negasi T. Beyene, CDC; Peter Meyer, National Center for Health Statistics

313 CC-117 (West)

■ ✪ Assessing Nonresponders and Nonresponse Bias—Contributed

Section on Survey Research Methods, Section on Government Statistics
Chair(s): Benmei Liu, National Cancer Institute

8:35 a.m. Profiles of Responses Over the 2006 Canadian Census Collection Period: What Are the Differences for Early and Late Responses?—◆Laurent Roy, Statistics Canada; Catherine Corriveau, Statistics Canada; Laura McFarlane, Statistics Canada

8:50 a.m. Nonresponse in a Survey of Military Personnel: What Record Data Can Tell Us—◆Monica L. Wolford, U.S. Army Research Institute; Lynn M. Milan, U.S. Army Research Institute

9:05 a.m. 2003 National Survey of College Graduates Nonresponse Bias Analysis—◆Michael White, U.S. Census Bureau

9:20 a.m. Do Characteristics of RDD Survey Respondents Differ According to Difficulty of Obtaining Response?—◆Pheny Weidman, Bureau of Transportation Statistics

9:35 a.m. Try, Try Again: Response and Nonresponse in the 2009 SCF Panel—◆Arthur B. Kennickell, Federal Reserve Board

9:50 a.m. Assuming 'e'—◆Ashley Amaya, NORC; Gary Euler, National Center for Immunization and Respiratory Diseases

10:05 a.m. Experimenting with Pre-Contact Strategies for Reducing Nonresponse in an Economic Survey—◆Alfred David Tuttle, U.S. Census Bureau; Richard S. Hough, U.S. Census Bureau; Jeri Mulrow, National Science Foundation; Kenneth M. Pick, U.S. Census Bureau; Diane K. Willimack, U.S. Census Bureau

314 CC-110 (West)

■ ✪ Survey Design: Issues and Applications—Contributed

Section on Survey Research Methods, Section on Government Statistics
Chair(s): Karol Krotki, RTI International

8:35 a.m. The Global Adult Tobacco Survey (GATS): Sampling, Survey Participation, and Sample Weights—◆William D. Kalsbeek, The University of North Carolina at Chapel Hill; J. Michael Bowling, The University of North Carolina at Chapel Hill; Krishna M. Palipudi, CDC

8:50 a.m. Subsegments for One-Unit Acceptance-Rejection Sampling for Covering Missed Housing Units—Avinash C. Singh, NORC; ◆Kirk Wolter, NORC

9:05 a.m. Expected Number of Random Duplications Within or Between Lists—◆William E. Yancey, U.S. Census Bureau

9:20 a.m. Sample Design Methodology for Studying Patients Using Registry Data—◆Shelton M. Jones, RTI International; Lauren A. McCormack, RTI International; Timothy Patrick Johnson, Survey Research Laboratory; Connie L. Hobbs, RTI International; Joseph P. McMichael, RTI International; Steven B. Clauser, National Cancer Institute

9:35 a.m. Is There Nonrandom Selection in Matched Administrative Earnings Data? Evidence from the Health and Retirement Study—◆Jesse Bricker, Federal Reserve Board

9:50 a.m. Understanding the Effect of Job Satisfaction Moderated by Job Involvement on Interviewer Turnover—◆Ashley Bowers, University of Michigan; Rachel A Orlowski, University of Michigan; Hyun Jung Lee, University of Michigan; Christopher Antoun, University of Michigan

10:05 a.m. On Quality of Ancillary Data Available for Address-Based Sampling—◆J. Michael Dennis, Knowledge Networks; Charles DiSogra, Knowledge Networks; Mansour Fahimi, Marketing Systems Group

315 CC-306 (West)

ASA College Stat Bowl II – Other

ASA, ENAR, IMS, SSC, WNAR, ICSA, IISA
Organizer(s): Stephanie Cano, The University of Texas at San Antonio
Chair(s): Stephanie Cano, The University of Texas at San Antonio

Round 2 - *Winners from Session 1, Six players will advance from Round 1 to Round 2

Invited Sessions
10:30 a.m.–12:20 p.m.

316 CC-222 (West)

■ Study Design and Statistical Analysis Challenges in Women's Health Studies—Invited

Biometrics Section, Health Policy Statistics Section, Caucus for Women in Statistics
Organizer(s): Marcia A. Ciol, University of Washington
Chair(s): Marcia A. Ciol, University of Washington

10:35 a.m. Violence Against Women in Developing Countries: Statistical Challenges—◆Hrishikesh Chakraborty, RTI International

10:55 a.m. Measuring Women's Compliance to Guidelines for Getting Mammograms—◆Jane F. Gentleman, National Center for Health Statistics; Nancy Breen, National Cancer Institute; Judith H. Mopsik, The Lewin Group; Jeannine Schiller, National Center for Health Statistics; Pete Welch, The Lewin Group

11:15 a.m. Identifying Pregnancy Deaths in the United States: Vital Statistics and Surveillance Systems—◆Andrea P. MacKay, National Center for Health Statistics

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

11:35 a.m. Statistical Challenges in Modeling Health Symptoms During Menopausal Transition—◆Annette Dobson, University of Queensland; Gita Mishra, University of Queensland

11:55 a.m. Challenges in Predicting Risk of Women Diseases Using Genomic Data—◆Mariza De Andrade, Mayo Clinic

12:15 p.m. Floor Discussion

317 CC-201 (West)

■ ✪ Space-Time Analysis and SAMSI—Invited

Statistical and Applied Mathematical Sciences Institute
Organizer(s): James Berger, Duke University
Chair(s): James Berger, Duke University

10:35 a.m. A Generalized Bayesian Spatial Prediction Method—◆Jim Zidek, The University of British Columbia; Yiping Dou, The University of British Columbia; Nhu Le, BC Cancer Agency

11:00 a.m. The Spatial Random Effects Model and Its Role in Spatial and Spatio-Temporal Statistics—◆Noel A. Cressie, The Ohio State University

11:25 a.m. Multivariate Zero-Inflated Bayesian Spatial Model—◆Chong He, University of Missouri; Jing Zhang, Miami University

11:50 a.m. Disc: SAMSI Director, Statistical and Applied Mathematical Sciences Institute

12:10 p.m. Floor Discussion

318 CC-109 (West)

■ ✪ Big Science: Opportunities for Statisticians in the World's Most Massive Projects—Invited

Council of Chapters, Biometrics Section, *CHANCE*, IMS, Section for Statistical Programmers and Analysts, Section on Bayesian Statistical Science, Section on Government Statistics, Section on Physical and Engineering Sciences, Section on Statistical Computing, Section on Statistical Graphics, Social Statistics Section, WNAR
Organizer(s): Kary Myers, Los Alamos National Laboratory
Chair(s): Kary Myers, Los Alamos National Laboratory

10:35 a.m. Hunting the Higgs Boson: The Uses and Abuses of Statistics in High-Energy Physics—◆Isabel Trigger, TRIUMF

11:05 a.m. Mars Geochemical Analysis by Multivariate Analysis—◆Samuel M. Clegg, Los Alamos National Laboratory; Olivier Forni, Centre d'Etude Spatiale des Rayonnements; M. Darby Dyar, Mount Holyoke; Roger C. Wiens, Los Alamos National Laboratory; Sylvestre Maurice, Centre d'Etude Spatiale des Rayonnements

11:35 a.m. Analyzing Large Data Sets in Astronomy—◆Alexander Sandor Szalay, The Johns Hopkins University

12:05 p.m. Floor Discussion

319 CC-13 (East)

Spatial Statistical Methods for Environmental Extremes—Invited

Section on Statistics and the Environment, IMS, Section on Physical and Engineering Sciences
Organizer(s): Catherine Calder, The Ohio State University
Chair(s): Catherine Calder, The Ohio State University

10:35 a.m. Some Extreme Value Problems in Climate Research—◆Peter Guttorp, University of Washington/Norwegian Computing Center

11:00 a.m. Bayesian Modeling for Spatial Extreme Values—◆Huiyan Sang, Texas A&M University

11:25 a.m. Bayesian Nonparametric Point Process Modeling for Extreme Value Analysis—◆Athanasios Kottas, University of California, Santa Cruz; Ziwei Wang, University of California, Santa Cruz; Abel Rodriguez, University of California, Santa Cruz; Bruno Sanso, University of California, Santa Cruz

11:50 a.m. Nonparametric Spatial Models for Extreme Temperature Data—◆Montserrat Fuentes, North Carolina State University; John Henry, North Carolina State University; Brian Reich, North Carolina State University

12:15 p.m. Floor Discussion

320 CC-110 (West)

✪ New Statistical Perspectives on Classification—Invited

IMS, International Chinese Statistical Association
Organizer(s): Lutz Duembgen, University of Bern
Chair(s): Lutz Duembgen, University of Bern

10:35 a.m. A Selective Overview and New Perspectives on Nonparametric Classification—◆Richard Samworth, University of Cambridge

11:05 a.m. *P*-Values for Classification in High-Dimensional Settings—◆Niki Zumbrunnen, University of Bern; Lutz Duembgen, University of Bern

11:35 a.m. DD-Classifiers: New Nonparametric Classification Procedures—◆Regina Liu, Rutgers University; Jun Li, University of California, Riverside; Juan A. Cuesta-Albertos, University of Cantabria

12:05 a.m. Floor Discussion

321 CC-211 (West)

■ ✪ Innovative Use of Paradata Across Continents in Large-Scale Complex Surveys: Nonresponse Adjustment, Data Quality Control, and Theoretical Underpinnings (in Honor of Robie Sangster)—Invited

Section on Survey Research Methods, Section on Government Statistics, Health Policy Statistics Section
Organizer(s): Young Chun, NORC
Chair(s): James Lepkowski, University of Michigan

10:35 a.m. The Use of Paradata for Nonresponse Adjustment in the European Social Survey (ESS)—◆Ineke Stoop, The Netherlands Institute for Social Research/SCP; Jaak Billiet, Katholieke Universiteit Leuven; Achim Koch, Leibniz Institute for the Social Sciences

10:55 a.m. Assessing Contact History Data Quality and Consistency Across Several Federal Surveys—◆Nancy Bates, U.S. Census Bureau; James M. Dahlhamer, National Center for Health Statistics; Polly Phipps, Bureau of Labor Statistics; Adam Safir, Bureau of Labor Statistics; Lucilla Tan, Bureau of Labor Statistics

11:15 a.m. A Study of Modeling Longitudinal Nonresponse Using Paradata in the Survey of Labour and Income Dynamics (SLID)—◆Beatrice Baribeau, Statistics Canada; Wisner Jocelyn, Statistics Canada

11:35 a.m. Paradata for Response Propensity Models and Nonresponse Adjustment in the National Assessment of Educational Progress: Social Isolation Theory as a Modeling Navigator—◆Young Chun, NORC; Mike Kwanisai, NORC; Linda Hamilton, American Institutes for Research

11:55 a.m. Disc: Fritz Scheuren, NORC

12:15 p.m. Floor Discussion

322 CC-111/112 (West)

■ Use of Graphics in Clinical Trials—Invited

Committee on Applied Statisticians, *CHANCE*, Section on Statistical Graphics
Organizer(s): Jennifer Gauvin, GlaxoSmithKline
Chair(s): Jennifer Gauvin, GlaxoSmithKline

10:35 a.m. Use of Graphics in Clinical Trials—◆Frank E. Harrell Jr., Vanderbilt University School of Medicine

10:55 a.m. A Case Study of Graphics in Clinical Trials: The Role of Statistical Graphics in the Recent Submission/Approval of GSK's Votrient in the United States—◆Michael Durante, GlaxoSmithKline

11:15 a.m. Graphics for Exploratory Analysis and Reporting in Clinical Trials—◆Michael O'Connell, Tibco

11:35 a.m. Communicating Clinical Trial Results the Statistical Graphic Way—◆Mat Soukup, FDA

11:55 a.m. Disc: Amarjot Kaur, Merck & Co., Inc.

12:15 p.m. Floor Discussion

323 CC-204 (West)

■ ✪ Calibration Methods for Microsimulation Models—Invited

WNAR, Biometrics Section, Health Policy Statistics Section
Organizer(s): Carolyn M. Rutter, Group Health Research Institute
Chair(s): Sean Devlin, University of Washington

10:35 a.m. Calibrating Microsimulations with Multicriteria Optimization Algorithms—◆Chung Yin Kong, Massachusetts General Hospital

11:00 a.m. A Quadratic Regression Approach to Maximize the Mean Simulated Likelihood in Microsimulation Models with Few Parameters—◆Roman Gulati, Fred Hutchinson Cancer Research Center; Lurdes Inoue, University of Washington; Ruth Etzioni, Fred Hutchinson Cancer Research Center

11:25 a.m. Bayesian Calibration of Microsimulation Models—◆Carolyn M. Rutter, Group Health Research Institute

11:50 a.m. Disc: Gregory Samsa, Duke University School of Medicine

12:10 p.m. Floor Discussion

324 CC-121 (West)

■ ✪ CDISC: Standards vs. Operational Challenges—Invited

Section for Statistical Programmers and Analysts, Biopharmaceutical Section
Organizer(s): Vipin Arora, Takeda Global Research & Development Center, Inc.
Chair(s): Stephen Wilson, FDA/CDER

10:35 a.m. Advantages of Using ADaM for Analyzing Data—◆Mario Widel, Genentech

10:55 a.m. Operational Data Sets to SDTM Data Sets: Narrowing the Gap, a Practical Review—◆Dan Crawford, Octagon Research Solutions, Inc.

11:15 a.m. Harmonizing Data Processes with the CDISC Family of Data Standards at a Global CRO—◆Steven Kirby, MDS Pharma Services; Brad Danner, MDS Pharma Services; Nancy Wang, Celerion

11:35 a.m. Approaches for Preparing CDISC Compliant Clinical Data: An Experience Within a Pharmaceutical Company—◆Xiao Li, Takeda Pharmaceutical Company Limited

11:55 a.m. Disc: Vipin Arora, Takeda Global Research & Development Center, Inc.

12:15 p.m. Floor Discussion

325 CC-301 (West)

■ ✪ Novel Applications of Statistical Methods in Baseball Research—Invited

Section on Statistics in Sports
Organizer(s): Liam M. O'Brien, Colby College
Chair(s): Liam M. O'Brien, Colby College

10:35 a.m.	Spatial Modeling of Fielding in Major League Baseball—◆Shane Jensen, The Wharton School, University of Pennsylvania
10:55 a.m.	Improved Estimates for the Impact of Baserunning in Baseball—◆Benjamin Strong Baumer, CUNY Graduate Center
11:15 a.m.	Modeling the Impact of MLB Bullpen Use and Abuse—James J. Cochran, Louisiana Tech University; ◆Martin S. Levy, University of Cincinnati
11:35 a.m.	Exploring the Count in Baseball—◆Jim Albert, Bowling Green State University
11:55 a.m.	Applications and Implications of a Nested Dirichlet Model of Baseball Player Ability—◆Brad Null, Stanford University
12:15 p.m.	Floor Discussion

Invited Panel 10:30 a.m.–12:20 p.m.

326 CC-118 (West)

■ ✪ Statistical Methods Used in Defense and Nondefense Applications—Invited

Section on Statistics in Defense and National Security, International Chinese Statistical Association
Organizer(s): Myron Katzoff, CDC
Chair(s): Myron Katzoff, CDC

Panelists:	◆Alyson Wilson, Iowa State University
	◆Steven Thompson, Simon Fraser University
	◆Nozer Singpurwalla, The George Washington University
	◆Aparna Hurzurbazar, Los Alamos National Laboratory
	◆Robert Shumway, University of California, Davis
	◆Max Morris, Iowa State University
12:15 a.m.	Floor Discussion

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

327 CC-10 (East)

■ ✪ Bayesian Model Selection and Model Diagnostics—Topic-Contributed

Section on Bayesian Statistical Science
Organizer(s): Xinyi Xu, The Ohio State University
Chair(s): Subharup Guha, University of Missouri

10:35 a.m.	fMRI Analysis with Structured Bayesian Variable Selection—◆Feng Liang, University of Illinois
10:55 a.m.	A Consistency Result for Bayesian Model Selection Using Nonlocal Priors—◆Valen Johnson, MD Anderson Cancer Center
11:15 a.m.	Diagnostics for Bayesian Hierarchical Models of Response Time Data—Peter F. Craigmile, The Ohio State University; ◆Mario Peruggia, The Ohio State University; Trisha Van Zandt, The Ohio State University
11:35 a.m.	Model Prior Choice and Multiplicity Correction in Bayesian Model and Variable Selection—◆Melanie Ann Wilson, Duke University; Merlise Clyde, Duke University; Edwin Iversen, Duke University
11:55 a.m.	Calibrated Bayes Factor for Model Comparison and Prediction—◆Xinyi Xu, The Ohio State University; Steven MacEachern, The Ohio State University; Pingbo Lu, The Ohio State University; Ruoxi Xu, The Ohio State University
12:15 p.m.	Floor Discussion

328 CC-215 (West)

■ Meta-Analysis Related to Regulatory Issues: The FDA Guidance Document for Diabetes and Cardiovascular Risk—Topic-Contributed

Biopharmaceutical Section, ENAR, Health Policy Statistics Section
Organizer(s): Joan Buenconsejo, FDA
Chair(s): Andreas Brueckner, Bayer Schering Pharma

10:35 a.m.	Evaluating Cardiovascular Risk in Diabetes Clinical Trials: Lessons Learned from Saxagliptin—◆J Mark Donovan, Bristol-Myers Squibb
10:55 a.m.	Multiplicity Issues in Meta-Analyses to Rule Out an Unacceptable Cardiovascular Risk—◆Stefan Hantel, Boehringer Ingelheim Pharmaceuticals, Inc.
11:15 a.m.	Evaluating Cardiovascular Risk in Diabetes Clinical Trials: An FDA Statistician's Perspective—◆Jon Todd Sahlroot, FDA
11:35 a.m.	Micro-Macro; FDA-EMA: On Developing Diabetes Drugs—◆Janet Wittes, Statistics Collaborative, Inc.
11:55 a.m.	Disc: Steve Snappin, Amgen Inc.
12:15 p.m.	Floor Discussion

329 CC-302/303 (West)

■ The Design and Analysis of Crossover Trials: Some Recent Developments—Topic-Contributed

Biopharmaceutical Section
Organizer(s): Byron Jones, Pfizer Inc.
Chair(s): Robb Muirhead, Statistical Scientist

10:35 a.m. Sample Size Re-estimation in Crossover Trials—◆Adina Soaita, Pfizer Inc.; Byron Jones, Pfizer Inc.; Jerry J. Weaver, Pfizer Inc.

10:55 a.m. Scaled Average Bioequivalence for Highly Variable Drugs—◆Scott Patterson, Pfizer Inc.; Byron Jones, Pfizer Inc.; Dieter Hauschke, University Medical Center Freiburg

11:15 a.m. Comparing Adaptive and Traditional Crossover Designs for Dose-Finding Trials—◆James A. Bolognese, Cytel Inc.; Nitin R. Patel, Cytel Inc.; Byron Jones, Pfizer Inc.

11:35 a.m. The Use of Baseline Covariates in Cross-Over Studies—◆Byron Jones, Pfizer Inc.; Michael G. Kenward, London School of Hygiene and Tropical Medicine; James Henry Roger, GlaxoSmithKline

11:55 a.m. Optimal Crossover Designs for PK Studies—◆Sergei Leonov, GlaxoSmithKline; Valerii Fedorov, GlaxoSmithKline; Byron Jones, Pfizer Inc.

12:15 p.m. Floor Discussion

330 CC-122 (West)

■ ✪ Safety Signal Detection in a New Drug Development Program—Topic-Contributed

Biopharmaceutical Section, Committee on Applied Statisticians
Organizer(s): Guowen (Gordon) Sun, sanofi-aventis
Chair(s): Guowen (Gordon) Sun, sanofi-aventis

10:35 a.m. Meta-Analysis for Rare Adverse Event Data from Clinical Trials—◆Brenda Crowe, Eli Lilly and Company

10:55 a.m. Real-Time Safety Assessment: A Sponsor's Approach on Tool Development to Facilitate the Assessment—◆Christy Chuang-Stein, Pfizer Inc.; Craig Hartford, Pfizer Inc.; David M. Jones, Pfizer Inc.; Janice Lamb, Pfizer Inc.

11:15 a.m. Ongoing Evaluation of Safety Data in Drug Development—◆Martin Roessner, sanofi-aventis

11:35 a.m. Prospective Safety Analysis Plans: Critical Elements and Principles—◆George Rochester, FDA

11:55 a.m. Disc: Susan Ellenberg, University of Pennsylvania School of Medicine

12:15 p.m. Floor Discussion

331 CC-210 (West)

■ ✪ What Can ACS Tell Policymakers? Assessing Data on Education, Income, and Health Insurance—Topic-Contributed

Social Statistics Section, Section on Government Statistics
Organizer(s): John Czajka, Mathematica Policy Research, Inc.
Chair(s): Sharon Stern, U.S. Census Bureau

10:35 a.m. Dollar for Dollar: Rating the Income Data from the American Community Survey—◆John Czajka, Mathematica Policy Research, Inc.

10:55 a.m. Health Insurance Estimates from the ACS: An Analysis of Directly Purchased Coverage—◆Victoria Lynch, The Urban Institute

11:15 a.m. Health Insurance Estimates from the ACS: The Ability to Detect Difference at Small Levels of Geography—◆Jeanette Ziegenfuss, Mayo Clinic; Michel Boudreaux, University of Minnesota, SHADAC

11:35 a.m. Health Insurance Estimates from the CPS vs. ACS: An Analysis of State-Specific Program Names—◆Joanne Pascale, U.S. Census Bureau

11:55 a.m. Measuring Enrollment in Public Schools: Do American Community Survey Estimates Receive a Passing Grade?—◆Angelina N. KewalRamani, American Institutes for Research

12:15 p.m. Floor Discussion

332 CC-209 (West)

■ ✪ Adaptive Design for Drug/Diagnostic Combination Trials—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Gene Anthony Pennello, FDA
Chair(s): Kyunghee Kim Song, FDA/CDRH

10:35 a.m. A Bayesian Adaptive Design with Biomarkers for Targeted Therapies—◆Jens C. Eickhoff, Colorado State University; KyungMann Kim, University of Wisconsin-Madison; Jill M. Kolesar, University of Wisconsin-Madison; Jason R. Gee, Lahey Clinic Medical Center

10:55 a.m. Applying Covariate-Adjusted, Response-Adaptive Randomization to Medical Device Studies—Thomas E. Gwise, FDA; ◆Gene Anthony Pennello, FDA

11:15 a.m. Adaptive Designs with Sensitive Subgroup Selection—◆Yan Daniel Zhao, Eli Lilly and Company; Alex Dmitrienko, Eli Lilly and Company

11:35 a.m. I-SPY2: Identifying Biomarker Signatures for Therapeutic Agents in Neoadjuvant Breast Cancer—Donald Arthur Berry, MD Anderson Cancer Center; ◆Kyle Wathen, MD Anderson Cancer Center; Nebiyou Bekele, MD Anderson Cancer Center; Laura Esserman, University of California, San Francisco

11:55 a.m. Disc: KyungMann Kim, University of Wisconsin-Madison

12:15 p.m. Floor Discussion

333 CC-218/219 (West)

✪ In Honor of Rod Little's 60th Birthday: Survey Methodology and Beyond—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Michael R. Elliott, University of Michigan
Chair(s): Michael R. Elliott, University of Michigan

10:35 a.m. Inference for Changes in the Kappa Statistic in Multi-level Clustered Binary Data—◆Rebecca Roberts Andridge, The Ohio State University

10:55 a.m. Variable Selection for Multiply-Imputed Data—◆Qixuan Chen, Columbia University; Sijian Wang, University of Wisconsin-Madison

11:15 a.m. Multiple Imputation of Disease Status Based on a Two-Phase Sample Design—◆Steven G. Heeringa, University of Michigan

11:35 a.m. Multiple Imputation Method for Disclosure Limitation in Longitudinal Data—◆Di An, Merck & Co., Inc.; Roderick Joseph Little, University of Michigan; James W. McNally, University of Michigan

11:55 a.m. Spline-Based Models for Prediction in Survey Samples—◆Hui Zheng, Harvard Medical School

12:15 p.m. Floor Discussion

334 CC-216 (West)

■ ✪ Benchmarking and Temporal Disaggregation of Time Series and New Approaches for Modeling Time-Series Data—Topic-Contributed

Business and Economic Statistics Section
Organizer(s): Baoline Chen, Bureau of Economic Analysis
Chair(s): Stuart Scott, Bureau of Labor Statistics

10:35 a.m. Applying Singular Spectrum Analysis to Climate Data Using SAS/ETS Software—◆Bruce Elsheimer, SAS Institute; Michael Leonard, SAS Institute; Marc Kessler, SAS Institute

10:55 a.m. Comparing the Causey-Trager Method to the Dagum-Cholette Regression Method of Benchmarking Subannual Data to Annual Benchmarks—◆Natalya Titova, U.S. Census Bureau; David Findley, U.S. Census Bureau; Brian Carl Monsell, U.S. Census Bureau

11:15 a.m. An Empirical Comparison of Methods for Temporal Distribution and Interpolation—◆Baoline Chen, Bureau of Economic Analysis

11:35 a.m. Accuracy of Nonparametric Price Indexes Relative to a Parametric Price Index of an Estimated Cobb-Douglas Marginal Utility Model—◆Peter Zadrozny, Bureau of Labor Statistics

11:55 a.m. Experience with Trend Revision Limits for Published Series—◆Peter Brian Kenny, PBK Research; Gary Brown, Office for National Statistics UK; Begoña Martin, Office for National Statistics UK

12:15 p.m. Floor Discussion

335 CC-18 (East)

■ Geostatistical Modeling for Environmental Data—Topic-Contributed

Section on Statistics and the Environment
Organizer(s): Brian Reich, North Carolina State University
Chair(s): Michele Guindani, University of New Mexico

10:35 a.m. Approximate Bayesian Computation for Spatial Extremes via Open-Faced Sandwich Adjustment—◆Benjamin Shaby, Statistical and Applied Mathematical Sciences Institute

10:55 a.m. Latent Process Segmentation for Point Process Data—◆David Kessler, The University of North Carolina at Chapel Hill; David Dunson, Duke University; Brian Reich, North Carolina State University

11:15 a.m. Spatial Time-to-Event Analysis of Air Pollution and Preterm Birth—◆Howard Chang, Statistical and Applied Mathematical Sciences Institute; Brian Reich, North Carolina State University; Marie Lynn Miranda, Duke University

11:35 a.m. The Predictive Spatial Dirichlet Process with Application to Downscaling—◆Veronica J. Berrocal, Statistical and Applied Mathematical Sciences Institute; Sudipto Banerjee, University of Minnesota; Alan E. Gelfand, Duke University

11:55 a.m. Meeting Multiple Regulatory and Research Needs with a Chemistry-and-Transport–Based Space-Time Statistical Model of Ozone—◆Amy Nail, North Carolina State University; John Monahan, North Carolina State University; George Pouliot, EPA ORD

12:15 p.m. Floor Discussion

336 CC-223 (West)

■ ✪ Survival Analysis Advances for Medical Research—Topic-Contributed

ENAR, Biometrics Section, IMS, Section on Nonparametric Statistics, Section on Risk Analysis
Organizer(s): Xuelin Huang, MD Anderson Cancer Center
Chair(s): Hao Liu, Baylor College of Medicine

10:35 a.m. A Nested Accelerated Failure Time Model for Times to Disease Recurrence and Survival—◆Xuelin Huang, MD Anderson Cancer Center; Jing Ning, The University of Texas Health Science Center at Houston

10:55 a.m. Local Linear Analysis of Multivariate Failure Time Data—◆Zhezhen Jin, Columbia University; Wenqing He, The University of Western Ontario

11:15 a.m. Nonparametric Tests for Right-Censored Data with Biased Sampling—Yu Shen, MD Anderson Cancer Center; ◆Jing Ning, The University of Texas Health Science Center at Houston; Jing Qin, National Institute of Allergy and Infectious Diseases

11:35 a.m. A Multvariate Frailty Model for Disease Recurrences and Survival—◆Sijin Wen, MD Anderson Cancer Center; Xuelin Huang, MD Anderson Cancer Center; Ralph F. Frankowski, The University of Texas School of Public Health

11:55 a.m. Estimating Progression-Free Survival When the Progression Status of Some Patients Is Unknown—◆Ying Yuan, MD Anderson Cancer Center; Peter F. Thall, MD Anderson Cancer Center; Johannes Wolff, MD Anderson Cancer Center

12:15 p.m. Floor Discussion

337 CC-217 (West)

■ ✪ Addressing Nonidentifiability Issues in Medical Research—Topic-Contributed

ENAR, Biometrics Section, Health Policy Statistics Section
Organizer(s): Yun Li, University of Michigan
Chair(s): Yun Li, University of Michigan

10:35 a.m. Bayesian Inference in Partially Identified Models—◆Paul Gustafson, The University of British Columbia

10:55 a.m. Nonidentifiable Issues in a Bayesian Cox Cluster Process Model for Functional Neuroimaging Data Analysis—◆Jian Kang, University of Michigan; Timothy D. Johnson, University of Michigan

11:15 a.m. Nonidentifiability in the Context of Missing Confounders—◆Lawrence McCandless, Simon Fraser University

11:35 a.m. Simultaneous Sensitivity Analysis for Observational Studies Using Full Matching with Multiple Controls—◆Dylan Small, University of Pennsylvania; Joseph L. Gastwirth, Washington University; Abba Krieger, University of Pennsylvania; Paul Rosenbaum, University of Pennsylvania

11:55 a.m. Nonidentifiability Issue in Meta-Analysis in the Presence of Publication Bias—◆Peter Song, University of Michigan; Youna Hu, University of Michigan; Meihua Wu, University of Michigan

12:15 p.m. Floor Discussion

338 CC-17 (East)

Testing and Functional ANOVA—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Yolanda Munoz Maldonado, Michigan Technological University
Chair(s): Arne Bathke, University of Kentucky

10:35 a.m. Inference Methods in Functional Mixed Effects Models—◆David Degras, The University of Chicago

10:55 a.m. Permutation MANOVA for Functional Linear Models and Regionalized Follow-Up Tests—◆Mark C. Greenwood, Montana State University

11:15 a.m. Estimating the Effect of Covariates on Functional Shape—◆Kert Viele, University of Kentucky; Robin Cooper, University of Kentucky

11:35 a.m. An Asymptotic Test for Functional ANOVA—◆Yolanda Munoz-Maldonado, Michigan Technological University

11:55 a.m. Bayesian Hierarchical Functional Models for Copy Number Data—◆Veera Baladandayuthapani, MD Anderson Cancer Center

12:15 p.m. Floor Discussion

339 CC-16 (East)

Recent Advances in Ranked Set Sampling—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Omer Ozturk, The Ohio State University

10:35 a.m. Sampling from Partially Ordered Judgment Subsets—◆Omer Ozturk, The Ohio State University

10:55 a.m. Constrained Nonparametric Estimation Using Ranked-Set Sampling with a Covariate—◆Jesse Frey, Villanova University

11:15 a.m. Isotonized Estimation of Cumulative Distribution Functions from Judgment Post-Stratification Data—◆Xinlei Wang, Southern Methodist University; Ke Wang, Southern Methodist University; Lynne Stokes, Southern Methodist University

11:35 a.m. Estimating Variances of Strata in Ranked Set Sampling—Min Chen, Yale University; ◆Johan Lim, Seoul National University

11:55 a.m. Comparing Distributions Using Ranked Set Samples—◆Kaushik Ghosh, University of Nevada at Las Vegas

12:15 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Topic-Contributed Panel
10:30 a.m.–12:20 p.m.

340 CC-224 (West)
Statway: Integrating College-Level Introductory Statistics and Developmental Mathematics—Topic-Contributed

Section on Statistical Education
Organizer(s): Roxy Peck, Cal Poly
Chair(s): Robert DelMas, University of Minnesota

Panelists:
◆Roxy Peck, Cal Poly
◆Rose Asera, Carnegie Foundation for the Advancement of Teaching
◆John Climent, Cecil Community College
◆Robert Kimball, Wake Technical Community College
◆Myra Snell, Los Medanos College

12:15 p.m. Floor Discussion

Contributed Sessions
10:30 a.m.–12:20 p.m.

341 CC-119 (West)
■ Statistical Programming Methodology—Contributed

Section for Statistical Programmers and Analysts
Chair(s): Heather Murphy, Eli Lilly and Company

10:35 a.m. A Comparison of Statistical Methods to Estimate Descriptive Statistics for Left-Censored Data—◆Maya Sternberg, CDC

10:50 a.m. Analysis of Disagree-Agree Responses Using Generalized Graded Unfolding Model—◆Weiwei Cui, National Institute of Statistical Sciences

11:05 a.m. Permutation Test for Comparing Zero-Inflated Continuous Distributions—Jixiang Wu, South Dakota State University; Lei Zhang, Mississippi State Department of Health; ◆William Johnson, Pennington Biomedical Research Center

11:20 a.m. Modeling U.S. Mortality Rates from Leading Causes of Death Using a Modified Lee-Carter Model—◆Jiraphan Suntornchost, National Center for Health Statistics; Rong Wei, National Center for Health Statistics; Eric V. Slud, University of Maryland

11:35 a.m. A Bayesian Method for Estimating Disease Prevalence in the Presence of a Hidden Subpopulation—◆Chaoxiong Xia, The University of British Columbia; Paul Gustafson, The University of British Columbia

11:50 a.m. Multistage, Multiphase BIB Designs—◆Md. Shamsuddin, King Abdulaziz University; Mian Arif Shams Adnan, Jahangirnagar University

12:05 p.m. Floor Discussion

342 CC-208 (West)
■ ✪ Proteomics: Function Prediction and Modeling—Contributed

Biometrics Section
Chair(s): Olga Vitek, Purdue University

10:35 a.m. Network-Based Auto-Probit Modeling for Protein Function Prediction—◆Xiaoyu Jiang, Boehringer Ingelheim Pharmaceuticals, Inc.; David Gold, State University of New York at Buffalo; Eric Kolaczyk, Boston University

10:50 a.m. A Unified Probabilistic Scoring Function Incorporating Multiple Sources of Information for Near-Native Discrimination of High-Resolution Protein Models—◆Yian Ann Chen, Moffitt Cancer Center; Hyun Joo, University of the Pacific; Xiaotao Qu, Moffitt Cancer Center; Ryan Day, University of the Pacific; Marina Vannucci, Rice University; Jerry Tsai, University of the Pacific

11:05 a.m. Fuzzy Clustering and Bayesian Model Selection for Peptide/Protein Identification—◆Soyoung Ryu, University of Washington; Vladimir Minin, University of Washington; Dave Goodlett, University of Washington

11:20 a.m. A Multistep Protein Lysate Array Quantification Method and Its Statistical Properties—◆Ji-Yeon Yang, University of Illinois at Urbana-Champaign

11:35 a.m. Floor Discussion

343 CC-205 (West)
Statistics in Biomedical Research—Contributed

Biometrics Section
Chair(s): Jennifer Schumi, Statistics Collaborative, Inc.

10:35 a.m. The Interplay Between Body Mass Index, Prostate-Specific Antigen, and Prostate Cancer Risk—◆Yuanyuan Liang, The University of Texas Health Science Center at San Antonio; Donna Pauler Ankerst, Technical University; Michael Sanchez, The University of Texas at San Antonio; Robin J. Leach, The University of Texas Health Science Center at San Antonio; Ian Murchie Thompson, The University of Texas Health Science Center at San Antonio

10:50 a.m. A Leadership Development Program for Statisticians in the Pharmaceutical Industry—◆Paul H. Berg, Eli Lilly and Company; Christopher M. Glitzer, Eli Lilly and Company; Walter W. Offen, Eli Lilly and Company; Shanthi Sethuraman, Eli Lilly and Company; Gary R. Sullivan, Eli Lilly and Company; Yoko Tanaka, Eli Lilly and Company; Sandra L. Toledo Marquette, Eli Lilly and Company; Ilker Yalcin, Eli Lilly and Company; Aarti S. Shah, Eli Lilly and Company

11:05 a.m. Moments of the Positive-Part Adjusted Squared Multiple Correlation Coefficient—◆Joseph Franklin Lucke, State University of New York at Buffalo

11:20 a.m. Statistical Considerations for Label Comprehension Studies: A Statistical Reviewer's Perspective—◆Yan Wang, FDA

11:35 a.m. Concordance Measures: Estimation Methods and Potential Bias Due to Censoring—◆Norberto Pantoja, Harvard School of Public Health/FDA; Rebecca Betensky, Harvard School of Public Health

11:50 a.m. A Bivariate Mover-Stayer Model for Interval-Censored Recurrent Event Data: Application to Joint Damage in Rheumatology—◆Rinku Sutradhar, Institute for Clinical Evaluative Sciences

12:05 p.m. Floor Discussion

344 CC-207 (West)

■ Missing Data in Clinical Trials—Contributed

Biopharmaceutical Section, ENAR
Chair(s): Anna B. Nevius, FDA/CVM

10:35 a.m. Analysis of Missing Mechanism in IVUS Imaging Clinical Trials with Missing Covariates—◆Tianyue Zhou, sanofi-aventis; Ming-Xiu Hu, Millennium Pharmaceuticals, Inc.

10:50 a.m. Longitudinal Data Analysis: Tackling Dropouts and Those Pesky Outliers—◆Devan V. Mehrotra, Merck Research Laboratories; Xiaoming Li, Merck Research Laboratories; Jiajun Liu, Merck Research Laboratories

11:05 a.m. Handling Missing Data in Rheumatoid Arthritis Trials—◆Guoguang Ma, Amgen Inc.; Liyun Ni, Amgen Inc.; Ling Chen, Washington University School of Medicine

11:20 a.m. Use Multiple Imputation to Handle Missing Data in Longitudinal Clinical Trials with Multiple Correlated Endpoints—Yahong Peng, Pfizer Inc.; ◆Lian Liu, Roche Product Development in Asia Pacific; Ruifeng Xu, Merck Research Laboratories

11:35 a.m. A Doubly Robust Estimator in Comparing Predictive Values for Diagnostic Tests Under Missing at Random—◆Yoonjin Cho, GlaxoSmithKline

12:05 p.m. Floor Discussion

345 CC-206 (West)

■ Survival Analysis—Contributed

Biopharmaceutical Section, Section on Risk Analysis
Chair(s): Stella Grosser, FDA

10:35 a.m. Random Delayed Effects and the Power of the Unweighted Log-Rank Test in Survival Trials—◆Jonathan Siegel, Bristol-Myers Squibb

10:50 a.m. Asymptotic Properties of Logrank and Stratified Logrank Tests on Highly Stratified Time-to-Event Data—◆Yabing Mai, Merck Research Laboratories; Sherry Liu, Merck Research Laboratories; Tinghui Yu, Binghamton University

11:05 a.m. A Mixture Accelerated Failure Time Model—◆Ying Zhang, Merck Research Laboratories

11:20 a.m. Change-Point Analysis of Survival Data with Application in Clinical Trials—◆Xuan Chen, sanofi pasteur; Michael Baron, The University of Texas at Dallas

11:35 a.m. Sample-Size Calculation for Time-to-Event Outcome with Treatment Lag Effect—◆Yulei Zhang, Columbia University; Tai-Tsang Chen, Bristol-Myers Squibb/Columbia University

11:50 a.m. An Alternative to the Peto Analysis for Two-Year Carcinogenicity Studies and to Tarone's Test for Trend on Censored Survival Data—◆Arthur Roth, Private consultant

12:05 p.m. Floor Discussion

346 CC-214 (West)

✪ Econometric Theory—Contributed

Business and Economic Statistics Section
Chair(s): Graham Elliott, University of California, San Diego

10:35 a.m. Optimal Estimation and Testing in Econometrics—◆Werner Ploberger, Washington University in St. Louis

10:50 a.m. Principal Components Analysis for Multivariate Point Processes—◆Victor Solo, University of New South Wales; Ahmed Pasha, University of New South Wales

11:05 a.m. Generalized Method of Moments with Tail Trimming—◆Jonathan B. Hill, The University of North Carolina at Chapel Hill; Eric Renault, The University of North Carolina at Chapel Hill

11:20 a.m. Inference About Clustering and Parametric Assumptions in Variance Covariance Estimation—◆Mikko Packalen, University of Waterloo; Tony Wirjanto, University of Waterloo

11:35 a.m. Equivalent Sample Sizes in Time Series Regressions—◆Jaechoul Lee, Boise State University; Robert Lund, Clemson University

11:50 a.m. Properties of a Block Bootstrap Under Long-Range Dependence—◆Young Min Kim, Iowa State University

12:05 p.m. Nonparametric Test of Conditional Quantile Independence with an Application to Banks' Systemic Risk—◆Milan Nedeljkovic, University of Warwick

347 CC-15 (East)

■ ✪ MCMC and Bayesian Modeling—Contributed

IMS, Section on Bayesian Statistical Science

Chair(s): Li Li, University of Toronto

10:35 a.m. Regenerative Simulation for Variable-at-a-Time Metropolis-Hastings Algorithms—◆Ronald Charles Neath, Baruch College, CUNY; Galin L. Jones, University of Minnesota

10:50 a.m. Quantile Estimation via Markov Chain Monte Carlo—◆James M. Flegal, University of California, Riverside

11:05 a.m. An Initialization Strategy for the EM Algorithm in Gaussian Mixtures—◆Igor Melnykov, Colorado State University; Volodymyr Melnykov, North Dakota State University

11:20 a.m. A Metropolis-Hastings–Based Method for Sampling from the G-Wishart Conjugate Prior in Gaussian Graphical Models—◆Nicholas Mitsakakis, Dalla Lana School of Public Health; Helene Massam, York University; Michael Escobar, Dalla Lana School of Public Health

11:35 a.m. Floor Discussion

348 CC-14 (East)

New Theoretical Considerations and Models—Contributed

International Chinese Statistical Association

Chair(s): I-Ping Tu, Academia Sinica

10:35 a.m. The Asymptotic Properties of Ridge Estimator for Infinite Dimensions—◆June Luo, Clemson University

10:50 a.m. A New Estimator of Intraclass Correlation for Clustered Binary Data—◆Zhen Pang, Nanyang Technological University

11:05 a.m. Laplace Error Penalty-Based Variable Selection and Its Application in GWAS—◆Shaoli Wang, Shanghai University of Finance and Economics; Xueqin Wang, Sun Yat-Sen University; Xiaolin Sang, Sun Yat-Sen University

11:20 a.m. A Finite Mixture Model for Working Correlation Matrices in Generalized Estimating Equations—◆Nan Lin, Washington University in St. Louis; Lili Xu, Northeast Normal University, China; Baoxue Zhang, Northeast Normal University, China

11:35 a.m. Remarks on Robust Nonparametric Imputation—◆Philip E. Cheng, Academia Sinica

11:50 a.m. Maximum Likelihood Estimate of Cell Probabilities of a Contingency Table Under Odds Ratio Constraints—◆Hsun-Chih Kuo, National Chengchi University

12:05 p.m. Floor Discussion

349 CC-9 (East)

Prior Distributions, Posterior Distributions, and Decision Functions—Contributed

Section on Bayesian Statistical Science

Chair(s): Eric Vance, Virginia Tech

10:35 a.m. Reference Priors for Constrained Poisson Models—◆Michael David Sonksen, The Ohio State University; Mario Peruggia, The Ohio State University

10:50 a.m. A Prior Distribution of Bayesian Nonparametrics Incorporating Distances of Various Types—◆Brian M. Hartman, Texas A&M University; David Dahl, Texas A&M University; Bani K. Mallick, Texas A&M University; Debabrata (Debu) Talukdar, State University of New York at Buffalo

11:05 a.m. On Bayes's Theorem for Improper Mixtures—Peter McCullagh, The University of Chicago; ◆Han Han, The University of Chicago

11:20 a.m. Reference Prior in High-Dimensional Exponential Families—Bertrand Clarke, University of Miami; ◆Subhashis Ghoshal, North Carolina State University

11:35 a.m. Alternative Bayesian Formulation for Robustness to Outliers—◆Martin Heller, Unemployed

11:50 a.m. Bayes Multiple Decision Functions—◆Wensong Wu, University of South Carolina; Edsel A. Pena, University of South Carolina

12:05 p.m. Semiparametric Functional Estimation Using Quantile-Based Prior Elicitation—◆Elijah Gaioni, IBM; Dipak K. Dey, University of Connecticut; Mircea Grigoriu, Cornell University

350 CC-213 (West)

Risk Adjustment and Causal Inference for Randomized and Nonrandomized Studies in Health Policy—Contributed

Health Policy Statistics Section, ENAR

Chair(s): Marc Elliott, RAND Corporation

10:35 a.m. Overdiagnosis and the Will Rogers Effect: Bias in Risk Adjustment—◆Daniel Gottlieb, The Dartmouth Institute for Health Policy and Clinical Practice; Jason Sutherland, Centre for Health Services and Policy Research

10:50 a.m. Developing a Randomization Protocol in a Community-Partnered Participatory Research Project to Reduce the Burden of Depression—◆Thomas R. Belin, University of California, Los Angeles; Susan E. Stockdale, University of California, Los Angeles; Lingqi Tang, University of California, Los Angeles; Felica Jones, Healthy African American Families II; Andrea Jones, Healthy African American Families II; Aziza Wright, Healthy African American Families II; Judy Perlman, RAND Corporation; Esmeralda Ramos, University of California, Los Angeles; Loretta Jones, Healthy African American Families II; Elizabeth Dixon, Queenscare; Kenneth B. Wells, University of California, Los Angeles

11:05 a.m. A New Method for Combining Experimental and Observational Data to Estimate Population Treatment Effects—Richard Grieve, London School of Hygiene and Tropical Medicine; Erin Hartman, University of California, Berkeley; ◆Jasjeet Sekhon, University of California, Berkeley

11:20 a.m. Evaluating the Effect of Early vs. Late ARV Regimen Change After Failing on an Initial Regimen: Results from the AIDS Clinical Trials Group Study A5095—◆Li Li, Emory University; Brent Johnson, Emory University; Joseph Eron, The University of North Carolina at Chapel Hill; Heather Ribaudo, Harvard University; Roy Gulick, Cornell University

11:35 a.m. Compare Between Datat Sets Made Through Two Matching Merthods in Nonexperimental Data—◆Gideon D. Bahn, Loyola University Chicago/Hines VA Hospital

11:50 a.m. Floor Discussion

351 CC-221 (West)

Survey Methodology and Latent Variable Modeling, with Application to Health Policy—Contributed

Health Policy Statistics Section
Chair(s): Steven Cohen, AHRQ

10:35 a.m. Survey Measurement of Complex Latent Constructs: An Example from the National Long Term Care Survey (NLTCS)—◆Elena A. Erosheva, University of Washington

10:50 a.m. A Multiple Imputation Model for Ascertaining Chronic Disease Cases in Administrative Data: Application to Osteoporosis—◆Lisa M. Lix, University of Saskatchewan; Heather J. Prior, Manitoba Centre for Health Policy; Chel Hee Lee, University of Saskatchewan; Marina Yogendran, Manitoba Centre for Health Policy

11:05 a.m. Group-Based Trajectory Modeling Extended to Account for Nonrandom Subject Attrition—◆Amelia Haviland, RAND Corporation; Daniel Nagin, Carnegie Mellon University; Bobby Jones, Carnegie Mellon University

11:20 a.m. Hospital Length-of-Stay Modeling by Coxian Phase-Type Regression with Heterogeneity—◆Xiaoqin Tang, Michigan State University; Zhehui Luo, Michigan State University; Joseph Gardiner, Michigan State University

11:35 a.m. Exact Sequential and Multistage Inference with Binary Response—◆Iliana Ignatova, Cal Poly; Don Edwards, University of South Carolina; Roland C. Deutsch, The University of North Carolina at Greensboro

11:50 a.m. An Experiment in Measuring Health Insurance Status and Type—◆Dianne Rucinski, Institute for Health Research and Policy

12:05 p.m. A Design for a Canadian Child Restraint Survey—◆Jean-Francois Lecuyer, Transport Canada; Aline Chouinard, Transport Canada

352 CC-202 (West)

Physics, Modeling, and the Environment—Contributed

Section on Physical and Engineering Sciences
Chair(s): Elizabeth Martinez Gomez, Penn State

10:35 a.m. Issues in Nonlinear and Dynamic Modeling—◆Lucas Beverlin, Iowa State University; Derrick Rollins, Iowa State University

10:50 a.m. An Automatic Crack Detection Algorithm for Vibrothermography Sequence-of-Images Data—◆William Q. Meeker, Iowa State University; Ming Li, Iowa State University; Steve Holland, Iowa State University

11:05 a.m. Data Mining in Radiation Portal Monitoring—◆Tom Burr Burr, Los Alamos National Laboratory; Michael Hamada, Los Alamos National Laboratory; Nicolas Hengartner, Los Alamos National Laboratory; Kary Myers, Los Alamos National Laboratory; Picard Richard, Los Alamos National Laboratory

11:20 a.m. Response of Canadian Crop Yields to Climate Change—◆Adam Jaeger, The University of Georgia; Lynne Seymour, The University of Georgia; Rosalind Beuckert, University of Saskatchewan

11:35 a.m. Are We Experiencing Abnormal Weather Patterns in the United States?—◆Ronald Tracy, Oakland University

11:50 a.m. A Reexamination of Daily Temperature Data—◆David James Thomson, Queen's University

12:05 p.m. A Hierarchical Bayesian Approach to Estimating Snow Water Equivalent from Passive Microwave Measurements—◆Desheng Liu, The Ohio State University; Michael Durand, The Ohio State University

353 CC-120 (West)

Binary Data—Contributed

Section on Statistical Computing
Chair(s): Bruce Barrett, The University of Alabama

10:35 a.m. Using Hybrid MCMC for Logistic Regression Model Selection—◆Robert Feyerharm, Independent Consultant

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

10:50 a.m. A Generalized Method of Moments Approach for Binary Data with Time-Dependent Covariates—◆Trent Lalonde, University of Northern Colorado; Jeffrey R. Wilson, The University of Utah

11:05 a.m. Latent Class Profile Analysis with Dynamic Dirichlet Learning Process on Model Selection Problems—◆Hsiu-Ching Chang, Michigan State University; Hwan Chung, Michigan State University

11:20 a.m. Exact REML Estimation Procedure in the Spatial Probit Normal Model for Binary Outcomes—◆Cristian Meza, Universidad de Valparaiso; Rolando De la Cruz, Pontificia Universidad Católica de Chile; Susana Eyheramendy, Pontificia Universidad Católica de Chile; Felipe Osorio, Universidad de Valparaiso

11:35 a.m. Improved Prediction Intervals for Binomial and Poisson Distributions—◆Jie Peng, St. Ambrose University; Kalimuthu Krishnamoorthy, University of Louisiana at Lafayette

11:50 a.m. Classification of Screened Data into One of Two Perturbed Normal Populations—◆Hea-Jung Kim, Dongguk University

12:05 p.m. On Finding the Upper Confidence Limit for a Binomial Proportion When Zero Successes Are Observed—◆Courtney E. Wimmer, Medical College of Georgia; Stephen W. Looney, Medical College of Georgia

354 CC-114/115 (West)

■ ✪ Computing and Graphics Software—Contributed

Section on Statistical Computing, Section on Statistical Graphics
Chair(s): Tanya Granston, University of Washington

10:35 a.m. Explore, Analyze, and Present Statistics Data with Google Visualization Tools—◆Edmond Cheng, Joint Program in Survey Methodology

10:50 a.m. qtpaintgui(): Rapidly Generating Interactive Graphics in R—◆Marie Vendettuoli, Iowa State University; Michael Lawrence, Genentech; Hadley Wickham, Rice University; Dianne Cook, Iowa State University; Heike Hofmann, Iowa State University

11:05 a.m. dbGUI: A Graphical User Interface to Databases—◆Dason Kurkiewicz, Iowa State University; Heike Hofmann, Iowa State University; Ulrike Genschel, Iowa State University

11:20 a.m. FASTAT: Expert Statistics Without a Keyboard—◆Leland Wilkinson, SYSTAT

11:35 a.m. Advanced MPI Support of Distributed Execution of R Programs—◆Chen Ding, University of Rochester; Bin Bao, University of Rochester; Xiaoming Gu, University of Rochester

11:50 a.m. Accelerating Common R Commands Using the Gputools Package—◆Mark Seligman, Rapid Biologics LLC; Josh Buckner, University of Michigan Molecular and Behavioral Neuroscience Institute

12:05 p.m. Minimal Statistics for Visualizing Large-Scale Data in R—◆Xiang Wu, Iowa State University; Heike Hofmann, Iowa State University

355 CC-203 (West)

Undergraduate Statistics Programs: Ideas for Curriculum—Contributed

Section on Statistical Education
Chair(s): Erin Blankenship, University of Nebraska-Lincoln

10:35 a.m. Learning Outcomes for Undergraduate Statistics Programs—◆Scott D. Grimshaw, Brigham Young University; Natalie Blades, Brigham Young University; Del T. Scott, Brigham Young University

10:50 a.m. Why Do We Study This? Critical Concepts to Retain from Stat Class—◆Kathryn B. Hall, Hewlett-Packard; Diane K. Michelson, ISMI

11:05 a.m. The Efficacy of Intensive Statistical Programming Courses at the Undergraduate Level—◆Nicole Lyn Ifill, University of California, Santa Barbara; Dawn Holmes, University of California, Santa Barbara

11:20 a.m. An Undergraduate Senior Seminar Driven by Pro Bono Statistical Consulting—◆Douglas Andrews, Wittenberg University

11:35 a.m. Service Learning Through Statistical Consulting—◆Tracy L. Morris, University of Central Oklahoma

11:50 a.m. Writing to Learn in Upper-Level Applied Statistics Courses—◆Ananda A. Jayawardhana, Pittsburg State University

12:05 p.m. An Innovative Team Approach to Teaching Environmental Statistics—◆William Frederick Hunt Jr., North Carolina State University; David Mobley, U.S. Environmental Protection Agency; Kevin Jones, North Carolina State University; Christine Wu, North Carolina State University; Colin Geisenhoffer, North Carolina State University; Emily Wisner, North Carolina State University; Alissa Anderson, North Carolina State University; Elena Beckman, North Carolina State University; Brody Heffner, North Carolina State University; James Kniffen Jr., North Carolina State University; Michael Shaw, North Carolina State University; Madeline Kamal, North Carolina State University; Stephen Crenshaw, North Carolina State University

356 CC-117 (West)

Ensemble Methods for Predictive Modeling—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Piotr Fryzlewicz, London School of Economics

10:35 a.m. Ensemble Classification Based on Generalized Additive Models—Koen W. De Bock, Ghent University; ◆Kristof Coussement, Université Catholique de Lille; Dirk Van den Poel, Ghent University

10:50 a.m. An Improved Genetic Algorithm for Boosting in the Presence of Outliers—◆Dong-Yop Oh, The University of Alabama; J. Brian Gray, The University of Alabama

11:05 a.m. A Boosting Method with Asymmetric Mislabeling Probabilities That Depend on Covariates—◆Kenichi Hayashi, Osaka University

11:20 a.m. Outlier Detection Methods for Improving Boosting—◆Waldyn Martinez Cid, The University of Alabama; J. Brian Gray, The University of Alabama

11:35 a.m. Thinning Random Forests—◆Jie Xu, The University of Alabama; J. Brian Gray, The University of Alabama

11:50 a.m. Detecting Financial Fraud Using Rule Ensembles on Functional Covariates—◆David G. Whiting, Brigham Young University

12:05 p.m. A Simple Boosted Linear Regression and Its Application in Health Care Cost Predictions—Ognian Asparouhov, MEDai Inc.; ◆Donghui Wu, MEDai Inc.

357 CC-116 (West)

Statistical Methods for Data Mining—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Jian Guo, University of Michigan

10:35 a.m. The Inequality Process as an Evolutionary Algorithm—◆John Angle, The Inequality Process Institute

10:50 a.m. The Effect of Hazard Assumptions on Split Selection Criteria and Predictive Error in Survival Trees—◆Brian D. White, University of South Florida; Kandethody Ramachandran, University of South Florida; Wonkuk Kim, University of South Florida

11:05 a.m. A Deterministic Algorithm for the LTS—◆Tim Verdonck, University of Antwerp; Mia Hubert, Katholieke Universiteit Leuven; Peter Rousseeuw, Katholieke Universiteit Leuven

11:20 a.m. Embedding Directed Proximity Data—◆Minh Tang, Indiana University; Michael Trosset, Indiana University

11:35 a.m. Change Line Classification and Regression—◆Chaeryon Kang, The University of North Carolina at Chapel Hill; Fei Zou, The University of North Carolina at Chapel Hill; Hao Zhu, The University of North Carolina at Chapel Hill; Michael Kosorok, The University of North Carolina at Chapel Hill

11:50 a.m. A Compressed PCA Subspace Method for Anomaly Detection in High-Dimensional Data—◆Qi Ding, Boston University; Eric Kolaczyk, Boston University

12:05 p.m. Floor Discussion

358 CC-212 (West)

■ New Research in Weighting Methodologies—Contributed

Section on Survey Research Methods
Chair(s): Wendy J. Barboza, National Agricultural Statistics Service

10:35 a.m. Selection of Replacement Samples for Nonresponding Units in Surveys That Use PPS Selection—◆Kadaba P. Srinath, Abt Associates, Inc.

10:50 a.m. Effect of Benchmark Cells Collapse Patterns on the National Compensation Survey Earnings Estimates—◆Dee Zamora, Bureau of Labor Statistics; Jonathan Lisic, National Agricultural Statistics Service; Chester Ponikowski, Bureau of Labor Statistics

11:05 a.m. Weight Calibration Across Subject-Specific Samples in the National Assessment of Educational Progress—◆Jennifer Kali, Westat; Tom Krenzke, Westat; Keith Rust, Westat; John Burke, Westat

11:20 a.m. Iterative Weighting Procedures for School Surveys: Trimming and Raking as One Algorithm—◆Ronaldo Iachan, ICF Macro; James G. Ross, ICF Macro; Mirna Moloney, ICF Macro

11:35 a.m. A Generalization of Maximum Entropy Weighting (MAXENT) for the Analysis of Internet Panel Data—◆Silvia Biffignandi, University of Bergamo; Jasjeet Sekhon, University of California, Berkeley; Erin Hartman, University of California, Berkeley; Donald B. Rubin, Harvard University

11:50 a.m. Assessment of Alternative Weighting Methods for the National Health Interview Survey—David Shaw, University of Maryland; ◆Joe Fred Gonzalez Jr., National Center for Health Statistics; Meena Khare, National Center for Health Statistics

12:05 p.m. Floor Discussion

359 CC-220 (West)

■ ✪ Address-Based Sampling—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section
Chair(s): Hans Kiesl, Regensburg University of Applied Sciences

10:35 a.m. Address-Based Area Sampling Design—Avinash C. Singh, NORC; ◆Peter K. Kwok, NORC

10:50 a.m. Predicting the Coverage of Address-Based Sampling Frames Prior to Sample Selection—◆Joseph P. McMichael, RTI International; Vincent G. Iannacchione, RTI International; Bonnie Shook-Sa, RTI International; Jamie L. Ridenhour, RTI International; Katherine Morton, RTI International; James R. Chromy, RTI International

11:05 a.m. An Investigation of the Presence or Absence of Households at Addresses Obtained by Field Listing and from USPS Lists—◆Sarah Shore, Westat; Jill Montaquila, Westat; Valerie Hsu, Westat

11:20 a.m. An Evaluation of Delivery Sequence File Sufficiency in Rural and Suburban Segments: When Is Listing Required?—◆Katie Dekker, NORC; Ned English, NORC

11:35 a.m. Predicting Areas Where USPS-Based Address Lists May Be Used in Place of Traditional Listing—◆Valerie Hsu, Westat; Jill Montaquila, Westat; J. Michael Brick, Westat

11:50 a.m. The Implications of Geocoding Error on Address-Based Sampling—◆Bonnie Shook-Sa, RTI International; Joseph P. McMichael, RTI International; Jamie L. Ridenhour, RTI International

12:05 p.m. Address-Based Sampling and the National Survey of Drug Use and Health: Evaluating the Effects of Coverage Bias—◆Katherine Morton, RTI International; Joseph P. McMichael, RTI International; Jamie L. Ridenhour, RTI International; Jonaki Bose, Substance Abuse and Mental Health Services Administration

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

360 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Biometrics Section—Contributed

Biometrics Section

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

01 Conditional Likelihoods in Sequential Bayesian Decision Problems for Correlated Survival Data—◆Daniel Garrett Polhamus, The University of Texas at San Antonio

02 Studying Concordance in Prostate Data—◆Irene B. Helenowski, Northwestern University; Timothy Kuzel, Northwestern University; Borko D. Jovanovic, Northwestern University; Aishwarya Parameswaran, Northwestern University

03 A New Method for the Comparison of Survival Distributions—◆Xun Lin, Pfizer Global Research and Development; Qiang Xu, FDA

04 Distance-Constrained Orthogonal Latin Squares for Brain-Computer Interface—◆Gang Luo, IBM T.J. Watson Research Center; Wanli Min, IBM T.J. Watson Research Center

05 Fixed vs. Mixed Parameterization in Logistic Regression: Application to Meta-Analysis—◆Chin-Fang Weng, University of Maryland

06 A Consistent Estimator of the Absolute Deviation Between Predicted and Observed Survival Functions—◆Matthias Schmid, University of Erlangen-Nuremberg

07 Bayesian Methods for Copy Number Inference in Heterogeneous Cancers Using SNP Arrays—◆Christopher Yau, University of Oxford; Christopher C. Holmes, University of Oxford

08 Comparing Mammography Visits in High and Low Repeat Rate Facilities—◆Jonathan D. Mahnken, The University of Kansas Medical Center; Jianghua (Wendy) He, The University of Kansas Medical Center; Hung-Wen Yeh, The University of Kansas Medical Center; Niaman Nazir, The University of Kansas Medical Center; Linda L. Jianas, The University of Kansas Medical Center; Kimberly K. Engelman, The University of Kansas Medical Center

09 Improving Small-Sample Inference in Group-Randomized Trials with Binary Outcomes—◆Philip Westgate, University of Michigan; Thomas Braun, University of Michigan

10 Unconditional Estimating Equation Approach for Missing Covariates Under Ignorable Missingness—◆Lin Lu, Quintiles; Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign; David S. Birkes, Oregon State University

11 Sample Size Determination for Quadratic Inference Functions Method in Longitudinal Design with Dichotomous Outcomes—◆Youna Hu, University of Michigan; Peter Song, University of Michigan; Youna Hu, University of Michigan

12 The Accuracy of Clinical Trial Inferences: The Saw Palmetto Experience—◆Jeannette Y. Lee, University of Arkansas for Medical Sciences; Page Moore, University of Arkansas for Medical Sciences; Shelly Lensing, University of Arkansas for Medical Sciences

13 On the Repeated Estimation of Survival Time Quantiles for a Time-to-Event Study in Follow-Up Stage—◆Sunhee Kwon Ro, Onyx Pharmaceuticals; Yu-Lin Chang, Onyx Pharmaceuticals

14 A Decision-Theoretic Approach to Gene Set Analysis—◆Simina Maria Boca, Johns Hopkins Bloomberg School of Public Health; Hector Corrada Bravo, Johns Hopkins Bloomberg School of Public Health; Giovanni Parmigiani, Harvard University; Jeffrey Leek, Johns Hopkins Bloomberg School of Public Health

15 Efficient Estimator of Semiparametric Extended Hazard Model—◆Yi-Kuan Tseng, National Central University, Taiwan; Ken-Ning Shu, National Central University, Taiwan

Presidential Address & Awards Session

Sastry Pantula
ASA President

Tuesday, August 3, 8:00 p.m. – 9:30 p.m.
Vancouver Convention Centre,
Ballrooms A&B (West)

Is your associate, professor, student, colleague, friend, or organization being recognized at the Joint Statistical Meetings?

Samuel S. Wilks
Memorial Award

Edward C. Bryant
Scholarship

Gertrude M. Cox
Scholarship

Gottfried E. Noether
Awards

W. J. Youden
Award in Lab Testing

Plan to attend the ASA Presidential Address and Awards Session for the recognition of the ASA's most distinguished members.

16 Asymptotic Distribution of Similarity Coefficients and Similarity Tests—◆Hanzhe Zheng, Merck & Co., Inc.; Larry P.Ammann,The University of Texas at Dallas

17 Statistical Analysis of the Level of Detection in MRM Proteomics Studies—◆Jessie Qing Xia, National Institute of Statistical Sciences

18 Bounds on Controlled Direct Effects Under Monotonic Assu[illegible] About Mediators and Confounders—[illegible]sutaka Ch[illegible]a, Kinki University School of Medicine

[illegible] A Portable Single Sign-On System with Keystroke Dynamic Authentication—◆Dongher Shih, National Yunlin University of Science and Technology; Po-Chin Chuang, National Yunlin University of Science and Technology; Minghung Shih, North Carolina State University

20 Blood Transfusion After Lung Transplant Using Two-Step Nonlinear Multiphase Generalized Mixed Models—◆Jeevanantham Rajeswaran, Cleveland Clinic; Eugene H. Blackstone, Cleveland Clinic

21 Design, Implementation, and Results for a Bayesian Adaptive Randomization Trial for Targeted Therapy in Lung Cancer—◆Suyu Liu, MD Anderson Cancer Center; J. Jack Lee, MD Anderson Cancer Center

22 Evaluating Bilateral Phenomena:The Case of Pain in Sickle Cell Disease (SCD)—Bassam A. Dahman,Virginia Commonwealth University; ◆Donna K. McClish,Virginia Commonwealth University

23 Estimating the Subject by Treatment Interaction in Nonreplicated Crossover Diet Studies—◆Matthew Kramer,Agricultural Research Service; Shirley C. Chen, Agricultural Research Service; Sarah Gebauer,Agricultural Research Service; David Baer,Agricultural Research Service

24 Permutation Tests for Random Effects in Linear Mixed Models—◆Oliver Lee, University of Michigan

25 Impact of Relying on Sample Variance-Covariance Estimate on Prediction Accuracy and Statistical Power of Hypothesis Testing When n << p—◆Peter H. Hu, Merck & Co., Inc.;Yue Wang, Merck & Co., Inc.; Jared Lunceford, Merck & Co., Inc.

26 Quantitative AP-1 Gene Regulation by Oxidative Stress in the Human Retinal Pigment Epithelium—Edward Chaum, University of Tennessee Health Science Center; Jinggang Yin, University of Tennessee Health Science Center; Huaitao Yang, University of Tennessee Health Science Center; ◆Fridtjof Thomas, University of Tennessee Health Science Center; John C. Lang,Alcon Research Ltd.

27 Identification of Neural Functional Connectivity Using a Sparse Generalized Volterra Model—◆Dong Song, University of Southern California;Theodore W. Berger, University of Southern California

28 Multiple Intelligences Among People with Epilepsy—◆Siti Rahmah Awang, Universiti Teknologi MARA; Rasimah Aripin, Universiti Teknologi MARA; Md Hanip Rafia, General Hospital Kuala Lumpur

29 Evaluating Functional Autocorrelation Within Spatially Distributed Neural Processing Networks—◆Gordana Derado, Emory University; DuBois Bowman, Emory University

30 Balancing Factor Analysis for Identifying Differentially Expressed Genes in Microarrays—◆Byung S. Park, Oregon Health & Science University; Shannon McWeeney, Oregon Health & Science University; Daniel Bottomly, Oregon Health & Science University; Priscila Darakjian, Oregon Health & Science University; Ovidiu Iancu, Oregon Health & Science University; John Belknap, Oregon Health & Science University; Robert Hitzemann, Oregon Health & Science University; Motomi Mori, Oregon Health & Science University

31 A Power and Sample Size Algorithm for Binary Outcome Longitudinal Studies That Utilize Quadratic Inference Functions—◆D. Keith Williams, University of Arkansas for Medical Sciences

32 On the Modeling and Simulation of Ambulatory Blood Pressure Traces—◆David A. James, Novartis; Xiaoyong Sun, Iowa State University

33 Quality Control for Whole-Genome DASL Assay—◆Jisuk Jo, Samsung Medical Center; Insuk Sohn, Samsung Medical Center; Sin-Ho Jung, Duke University; Soonmyung Paik, Samsung Medical Center

34 Model Selection for Causal Parameters in Structural Mean Models Based on a Quasi-Likelihood—◆Masataka Taguri,The University of Tokyo;Yutaka Matsuyama,The University of Tokyo;Yasuo Ohashi,The University of Tokyo

35 Proportional Hazards Regression for the Analysis of Failure Time Data with Outcome-Dependent Sampling and Dependent Censoring—◆Hui Zhang, University of Michigan; John David Kalbfleisch, University of Michigan; Douglas E. Schaubel, University of Michigan

36 Efficient and Fast Gene-by-Gene Interaction Analysis for Genomewide Association Analysis—◆Sohee Oh, Seoul National University; Jaehoon Lee, Seoul National University; Min-Seok Kwon, Seoul National University; Kyunga Kim, Seoul National University;Taesung Park, Seoul National University

37 Stable Gene Expression Index in Integrative Analysis—◆Anna Elizabeth Campain, University of Sydney; Jean Yang, University of Sydney; Francine Marques, University of Sydney; Brian Morris, University of Sydney

38 Estimation of Cellular and Genetic Diversity—◆Elza Erkip, Polytechnic Institute of New York University; Mithat Gonen, Memorial Sloan-Kettering Cancer Center

39 Bayesian Nonparametric Inference of Effective Population Trajectories with Gaussian Processes—◆Julia Adela Palacios, University of Washington; Vladimir Minin, University of Washington

40 Integrated Test Information—◆S. McKay Curtis, University of Washington; Paul K. Crane, University of Washington

41 Probit Latent Class Models for Evaluating Accuracy of Diagnostic Tests with Indeterminate Results—◆Huiping Xu, Mississippi State University; Bruce A. Craig, Purdue University

42 Variable Selection in High-Dimensional Distributions Using Multivariate Permutation Testing Procedures—◆Megan Christina Orr, Iowa State University; Peng Liu, Iowa State University; Dan Nettleton, Iowa State University

43 Power in the Case of Extreme Bimodal Distribution: Analysis of Delirium/Coma-Free Days in the ICU—◆Jennifer L. Thompson, Vanderbilt University; Ayumi Shintani, Vanderbilt University

44 Regression Parameters as Outcomes: Simple vs. Sophisticated Analyses—◆Reid D. Landes, University of Arkansas for Medical Sciences

45 Instrument Variable Analysis of Prostate Cancer Treatments for Clustered Binary Data—◆Anjun Cao, NovoNordisk; Dirk F. Moore, University of Medicine and Dentistry of New Jersey

46 Sample-Size Estimation for the Interaction Between Two Binary Covariates in a Cox Proportional Hazard Regression Model—◆Abu Minhajuddin, The University of Texas Southwestern Medical Center at Dallas; Xian-Jin Xie, The University of Texas Southwestern Medical Center at Dallas

47 Efficacy in Longitudinal Psychosis Studies When Missing Mechanism Unknown—◆Jun Zhao, Merck & Co., Inc.; Everton Rowe, Merck & Co., Inc.; Ram Suresh, Merck & Co., Inc.

48 Multiple Imputation for Microarray Missing Data with Slice Sampler—◆Hui Xie, Pennington Biomedical Research Center; Leann Myers, Tulane University; Steven Smith, Pennington Biomedical Research Center; Janet Rice, Tulane University; Michelle Lacey, Tulane University

49 Analyzing Gene Expression Data Using a Self-Contained Gene Set Enrichment Analysis Method—◆Jiawei Liu, Georgia State University

50 Optimizing a Testing Procedure Based on Kernel Density Estimation for Comparing Two Treatments—◆Sibabrata Banerjee, Merck & Co., Inc.; Sunil Dhar, New Jersey Institute of Technology; Farid Kianifard, Novartis Pharmaceuticals Corporation; Hanzhe Zheng, Merck & Co., Inc.; Venkata Sasikiran Goteti, Merck & Co., Inc.

51 An Informatics Center for Online Longitudinal Data Analysis—Edward C. Chao, Data Numerica Institute, Inc.; ◆Tao Qi, Annpro Analytic Technologies, Inc.

52 A Natural B-Spline Varying-Coefficient Method for Longitudinal Data with Nonignorable Dropout—◆Jeri E.F. Harwood, University of Colorado, Denver; Samantha MaWhinney, Colorado School of Public Health, University of Colorado Denver; Erika L. Hernandez, Brigham Young University

53 Measures of Association for Longitudinal Data: Applications to HIV/AIDS—Sujay Datta, Fred Hutchinson Cancer Research Center; ◆Hexin Zhang, Fred Hutchinson Cancer Research Center; Li Qin, Fred Hutchinson Cancer Research Center; Steven Self, Fred Hutchinson Cancer Research Center

54 Accounting for Dropout in Longitudinal Cohort Studies—◆Timothy Bahr, Colorado School of Public Health, University of Colorado Denver; Samantha MaWhinney, Colorado School of Public Health, University of Colorado Denver; Jeri E.F. Harwood, University of Colorado, Denver; Erika L. Hernandez, Brigham Young University; Eric Benotsch, Virginia Commonwealth University; Elizabeth Connick, University of Colorado, Denver

55 TACOMA—◆Donghui Yan, Fred Hutchinson Cancer Research Center; Pei Wang, Fred Hutchinson Cancer Research Center; Tim Randolph, Fred Hutchinson Cancer Research Center

56 An Inhibitory-Excitatory Approach for the Analysis of the Neural Spike Train—◆Reza Ramezan, University of Waterloo; Paul Marriott, University of Waterloo; Shojaeddin Chenouri, University of Waterloo

57 A Bias-Corrected Method for Estimating the Proportion of True Null Hypotheses—◆Dexiang Gao, The Children's Hospital - Denver; Tiejun Tong, University of Colorado, Boulder

58 The Data Dependence in Modeling Rat's Tumor Growth Data—◆Chong Yau Fu, National Yang Ming University; Yueh-Hsing Ou, Institute of Bioonology in Medicine; Shih-Hua Liu, National Yunlin University of Science and Technology

59 Using Statistical Concepts to Determine Risk Level of Randomized Clinical Trials That Compare Two Noninvestigational Therapies—Martin L. Lesser, Feinstein Institute for Medical Research; ◆Nina E. Kohn, Feinstein Institute for Medical Research

60 Mixed Models for Repeated Zero-Inflated Counts from Smoking Cessation Data—◆E. Paul Wileyto, University of Pennsylvania; Yimei Li, University of Pennsylvania; Daniel F. Heitjan, University of Pennsylvania

61 Modeling Spatial Structure Using High-Throughput Data—◆Ke Wang, Southern Methodist University; Xinlei Wang, Southern Methodist University; Guanghua Xiao, UT Southwestern Medical Center

62 Estimation of Periodontal Disease Incidence in the Presence of Diagnostic Error—◆Anthony J. Parker, Medical University of South Carolina; Elizabeth H. Slate, Medical University of South Carolina

63 A Statistical Model for Concentrations of Haemoglobin A1c Over Time in Response to a Treatment Intervention for Type 2 Diabetes Mellitus—◆Larry Z. Shen, Amylin Pharmaceuticals; Ping Yan, Amylin Pharmaceuticals

64 Measurement Error Model for Shape Data—◆Jiejun Du, University of South Carolina

65 Detection Call Algorithms for High-Throughput Gene Expression Microarray Data—◆Sarah Reese, Virginia Commonwealth University; Kellie Archer, Virginia Commonwealth University

66 Graphical Displays to Uncover Gene-Environment Interaction from Data on Case-Parent Trios—◆Ji-Hyung Shin, Simon Fraser University; Claire Infante-Rivard, McGill University; Brad McNeney, Simon Fraser University; Jinko Graham, Simon Fraser University

67 Likelihood-Based Evaluation of Normalization Methods—◆Sadhvi Khanna, The University of Arizona

68 Statistical Models for Adenoma Data from Colorectal Polyp Prevention Trials—◆Chiu-Hsieh Hsu, The University of Arizona; Sadhvi Khanna, The University of Arizona

69 Application of Intersection-Union Tests for Identifying Metabolite Biomarkers for Diagnosis and Prognosis—◆Kyoungmi Kim, University of California, Davis; Stanislav O. Zakharkin, Cadbury North America

70 Markov Chain Likelihood in Long Binary Sequence Data—◆Jianping Sun, Penn State; Bruce G. Lindsay, Penn State

71 Performance of Different Filtering Methods When Testing for Differential Expression in Microarray Data—◆Soledad Fernandez, The Ohio State University; Parul Gulati, The Ohio State University; David Jarjoura, The Ohio State University; Lianbo Yu, The Ohio State University; Michael Pennell, The Ohio State University

72 Power and Sample Size Estimation for 3-Level Hierarchical Data—◆Jiatao Ye, The University of Alabama at Birmingham; Inmaculada B. Aban, The University of Alabama at Birmingham; Christopher S. Coffey, The University of Iowa

73 Tandem Mass Spectrometry Data Analysis to Map Signaling Pathways and Protein Interaction Network—◆Yan Zhang, University of Michigan; Hye Kyong Kweon, University of Michigan; Philip Andrews, University of Michigan

74 The Effect of Noise on the Fitzhugh-Nagumo Neuronal Model—◆Charles Eugene Smith, North Carolina State University; Mamiko Arai, North Carolina State University

75 Mapping a Quantitative Trait Locus Using Reverse Regression on an Unrelated Population Sample—◆Joyjit Roy, Cornell University

76 What Will Happen to the Power If Dependent and Independent Variables Are Switched?—◆Youngju Pak, University of Missouri-Columbia; Wade Justin Davis, University of Missouri-Columbia

77 Analyzing Cognitive Testing Data with Extensions of Item Response Theory Models—◆Jonathan Gruhl, University of Washington; Elena A. Erosheva, University of Washington; Paul K. Crane, University of Washington

78 Average-Slope Regression—◆Brian G. Leroux, University of Washington; Adam Omidpanah, University of Washington

79 Hierarchical Weakest-Link Models in Cytometry of Lung Tumor Samples—◆The Minh Luong, University of Pittsburgh; Roger Day, University of Pittsburgh

361 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: International Biometric Society (ENAR)—Contributed

International Biometric Society

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

80 Linear Mixed Models for Assessing Longitudinal Mediation—◆Mark Beasley, The University of Alabama at Birmingham; Robert Makowsky, The University of Alabama at Birmingham; Yu-Mei Schoenberger, The University of Alabama at Birmingham

81 A Comparison of Change Point Methods for Lymph Node Risk Factors in Three Cancers—◆Marianne Huebner, Mayo Clinic; Rui Qin, Mayo Clinic

82 Estimation in Hierarchical Models with Incomplete Ordinal Response and Ordinal Covariates—◆Yong Zhang, University of Michigan; Trivellore Raghunathan, University of Michigan

83 Functional Data Analysis on Longitudinal Tract-Based DTI—Hongbin Gu, The University of North Carolina at Chapel Hill; ◆Spencer Hayss, The University of North Carolina at Chapel Hill

362 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: International Biometric Society (WNAR)—Contributed

WNAR

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

84 A NONMEM Population Approach to Modeling the Pharmacogenetics of Atazanavir and Ritonavir in HIV-Negative Adults—◆Deidre A. Kile, Colorado School of Public Health, University of Colorado Denver; Samantha MaWhinney, Colorado School of Public Health, University of Colorado Denver; Joseph E. Rower, University of Colorado, Denver; Peter L. Anderson, University of Colorado, Denver

85 Descriptive Discriminant Analysis for Repeated Measures Data: Effects of Non-Normality on Bias and Error in Discriminant Function Coefficients—◆Tolulope T. Sajobi, University of Saskatchewan; Lisa M. Lix, University of Saskatchewan; William H. Laverty, University of Saskatchewan; Longhai Li, University of Saskatchewan

363 CC-Exhibit Hall A (West)
Contributed Oral Poster Presentations: International Biometric Society—Contributed

International Biometric Society

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

86 Identification of the Subgroup Signatures by CID—Li-yu Daisy Liu, National Taiwan University; ◆Ya-Chun Hsiao, National Taiwan University; Tzu-Hao Ma, National Taiwan University

Speaker with Lunch 12:30 p.m.–1:50 p.m.

364 CC-Ballroom C (West)
Business and Economic Statistics Section Speaker with Lunch (fee event)

Business and Economic Statistics Section

Organizer(s): Bonnie Kathryn Ray, IBM T.J. Watson Research Center

TL10 Predicting the Present with Google Trends—◆Hal R. Varian, Google

P.M. Roundtable Discussions 12:30 p.m.–1:50 p.m.

365 CC-Ballroom D (West)
Biopharmaceutical Section (fee event)

Biopharmaceutical Section

Organizer(s): Jeffrey Maca, Novartis Pharmaceuticals Corporation

TL11 Worldly Role of Biostatistics: Tips for Communicating with International Peers—◆Yoko Adachi, FDA

TL12 Statistical Issues in Designing Active Control Studies with an Emphasis on Veterinary Medical Issues—◆Anna B. Nevius, FDA/CVM

TL13 The Diverse Role of the 'Nonclinical Statistician' in the New Drug Development Process—◆James Colaianne, Johnson & Johnson

TL14 Covariate Adjustment in Subgroup Analysis—◆Chul Ahn, FDA/CDRH

TL15 Hierarchical Testing Procedures for Secondary Endpoints in Clinical Trials—◆Thomas Kelleher, Bristol-Myers Squibb

366 CC-Ballroom D (West)
Section for Statistical Programmers and Analysts (fee event)

Section for Statistical Programmers and Analysts

Organizer(s): Chengying (Nancy) Wu, sanofi-aventis

TL16 Identifying and Reducing Risk Factors for CDISC-Compliant Submissions: How It Affects Programmers—◆Rachna Mittal, Genentech; Todd Case, Bristol-Myers Squibb

367 CC-Ballroom D (West)
Section on Bayesian Statistical Science (fee event)

Section on Bayesian Statistical Science

Organizer(s): Vanja Dukic, The University of Chicago

TL17 Decisionmaking in Public Policy: Problems from DOT, FDA, and NASA—◆David Banks, Duke University

368 CC-Ballroom D (West)
Section on Government Statistics (fee event)

Section on Government Statistics

Organizer(s): Iris Shimizu, National Center for Health Statistics

TL18 Are Official Statistics at Risk of Losing Their Preeminent Status with Governments and Society?—◆Brian Pink, Australian Bureau of Statistics

369 CC-Ballroom D (West)
Section on Nonparametric Statistics (fee event)

Section on Nonparametric Statistics

Organizer(s): Steven MacEachern, The Ohio State University

TL19 Quantile Regression—◆Roger Koenker, University of Illinois

370 CC-Ballroom D (West)
Section on Physical and Engineering Sciences (fee event)

Section on Physical and Engineering Sciences

Organizer(s): Kary Myers, Los Alamos National Laboratory

TL20 Balancing Competing Objectives for a Good Designed Experiment—◆Christine M. Anderson-Cook, Los Alamos National Laboratory

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

371 CC-Ballroom D (West)

Section on Quality and Productivity (fee event)

Section on Quality and Productivity
Organizer(s): Theresa Utlaut, Intel Corporation

TL21 Communicating with Nonstatisticians—◆Diane K. Michelson, ISMI

372 CC-Ballroom D (West)

Section on Risk Analysis (fee event)

Section on Risk Analysis
Organizer(s): Michael E. Tarter, University of California, Berkeley

TL22 Some Issues in Risk Analysis of Drug Products—◆Tony Lachenbruch, Oregon State University

373 CC-Ballroom D (West)

Section on Statistical Consulting (fee event)

Section on Statistical Consulting
Organizer(s): Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center

TL23 Preparation of Statisticians for the Needs of Industry—◆Amarjot Kaur, Merck & Co., Inc.

374 CC-Ballroom D (West)

Section on Statistical Education (fee event)

Section on Statistical Education
Organizer(s): Daniel Theodore Kaplan, Macalester College

TL24 A Second Course of Applied Statistics for Accredited Professional Schools—◆Amy Phelps, Duquesne University

TL25 Statistical Literacy as a Separate Course from Introductory Statistics—◆Robert Adam Molnar, Bellarmine University

375 CC-Ballroom D (West)

Section on Statistical Graphics (fee event)

Section on Statistical Graphics
Organizer(s): Webster West, Texas A&M University

TL26 R Graphics with an Excel Front End—◆Richard M. Heiberger, Temple University

376 CC-Ballroom D (West)

Section on Survey Research Methods (fee event)

Section on Survey Research Methods
Organizer(s): Paul Beatty, National Center for Health Statistics

TL27 Communicating Qualitative Research Findings to a Statistical Audience—◆Kathy Downey, Bureau of Labor Statistics

TL28 Best Practices for Asking Questions on Sexual Orientation on Surveys—◆ Barry Wayne Johnson, IRS; Elizabeth Saewyc, The University of British Columbia

377 CC-Ballroom D (West)

Social Statistics Section (fee event)

Social Statistics Section
Organizer(s): Nancy Clusen, Mathematica Policy Research, Inc.

TL29 Social Network Analysis: Statistical Issues, Models, and Applications—◆Mark Stephen Handcock, University of California, Los Angeles

Invited Sessions 2:00 p.m.–3:50 p.m.

378 CC-18 (East)

■ Statistical Design and Modeling Issues in Clinical Studies—Invited

International Indian Statistical Association, Biometrics Section
Organizer(s): Debajyoti Sinha, Florida State University
Chair(s): Ananda Sen, University of Michigan

2:05 p.m. A Hybrid Geometric Select-and-Test Design Based on Treatment Failure Time and Toxicity—◆Peter F. Thall, MD Anderson Cancer Center

2:30 p.m. Who Needs Bayesian Phase I Trials?—◆Rick Chappell, University of Wisconsin-Madison

2:55 p.m. A Bayesian Approach to Estimating Transmission Parameters and Intervention Efficacies with Missing Data—◆M. Elizabeth Halloran, Fred Hutchinson Cancer Research Center/University of Washington; Yang Yang, Fred Hutchinson Cancer Research Center; Michael J. Daniels, University of Florida; Ira M. Longini, Fred Hutchinson Cancer Research Center/University of Washington

3:20 p.m. Modeling Biological Processes Using Interdisciplinary Computational Systems Biology Approach—◆Hulin Wu, University of Rochester School of Medicine and Dentistry

3:45 p.m. Floor Discussion

379 CC-109 (West)

■ ✪ Latent Space Models for Network Analysis—Invited

General Methodology, IMS, Section on Statistics and Marketing, Section on Statistics in Defense and National Security
Organizer(s):Tian Zheng, Columbia University
Chair(s):Tyler McCormick, Columbia University

2:05 p.m. Reduced-Rank Factor Models for Network and Relational Array Data—◆Peter Hoff, University of Washington

2:30 p.m. Dynamic Network Models for Baboons and the Wikipedia—◆David Banks, Duke University

2:55 p.m. Probabilistic Modeling of Dynamic Networks Using Latent Space Models—◆Purnamrita Sarkar, Carnegie Mellon University;Andrew Moore, Google

3:20 p.m. Disc: Mark Stephen Handcock, University of California, Los Angeles

3:40 p.m. Floor Discussion

380 CC-120 (West)

Profile Monitoring via Functional Data Analysis—Invited

Technometrics, Section on Quality and Productivity, IMS, Section on Physical and Engineering Sciences
Organizer(s): David M. Steinberg,Tel Aviv University
Chair(s): David M. Steinberg,Tel Aviv University

2:05 p.m. Nonparametric Profile Monitoring by Mixed Effects Modeling—◆Peihua Qiu, University of Minnesota

2:50 p.m. Disc: Fugee Tsung,The Hong Kong University of Science & Technology

3:00 p.m. Disc: Hugh A. Chipman,Acadia University

3:10 p.m. Disc: Pang Du,Virginia Tech

3:20 p.m. Disc: Dan Apley, Northwestern University

3:30 p.m. Floor Discussion

381 CC-208 (West)

■ ✪ Biometrics Showcase Session: Breakthroughs in Bioinformatics and Statistical Genetics—Invited

ENAR, Biometrics Section, International Chinese Statistical Association
Organizer(s):Thomas Louis, Johns Hopkins Bloomberg School of Public Health
Chair(s): Marie Davidian, North Carolina State University

2:05 p.m. Gaussian Process–Based Bayesian Semiparametric Quantitative Trait Loci Interval Mapping—◆Fei Zou, The University of North Carolina at Chapel Hill; Hanwen Huang,The University of North Carolina at Chapel Hill; Haibo Zhou,The University of North Carolina at Chapel Hill; Fuxia Cheng, Illinois State University; Ina Hoeschele, Virginia Tech

2:30 p.m. Nonparametric Functional Mapping of Quantitative Trait Loci—◆Jie Yang, St. Jude Children's Research Hospital; George Casella, University of Florida; Rongling Wu, Penn State

2:55 p.m. Linear Mixed Model Selection for False Discovery Rate Control in Microarray Data Analysis—◆Cumhur Yusuf Demirkale, University of Florida; Dan Nettleton, Iowa State University;Tapabrata Maiti, Michigan State University

3:20 p.m. Disc: David Dunson, Duke University

3:40 p.m. Floor Discussion

382 CC-110 (West)

■ ✪ New Developments in High-Dimensional Variable Selection: From Supervised to Unsupervised Learning—Invited

Section on Statistical Learning and Data Mining, IMS, International Chinese Statistical Association, Section for Statistical Programmers and Analysts, Section on Nonparametric Statistics
Organizer(s):Yichao Wu, North Carolina State University
Chair(s):Yufeng Liu,The University of North Carolina at Chapel Hill

2:05 p.m. Stability and Inference Model Selection—◆Leonard A. Stefanski, North Carolina State University

2:30 p.m. Sparse Distance-Weighted Discrimination and the Oracle Theory—◆Lingsong Zhang, Purdue University; Xihong Lin, Harvard School of Public Health

2:55 p.m. Consistency of Spectral Clustering for the Stochastic Block Model with a Growing Number of Blocks—◆Karl Greiner Rohe, University of California, Berkeley; Sourav Chatterjee, University of California, Berkeley; Bin Yu, University of California, Berkeley

3:20 p.m. High-Dimension, Low-Sample Size Mathematical Statistics—◆J. S. Marron,The University of North Carolina at Chapel Hill

3:45 p.m. Floor Discussion

383 CC-215 (West)

Advances in Instrumental Variables Methods—Invited

Section on Statistics in Epidemiology, Biometrics Section, Health Policy Statistics Section
Organizer(s): Dylan Small, University of Pennsylvania
Chair(s): Dylan Small, University of Pennsylvania

2:05 p.m. Using IV with Subjective Assumptions to Construct Treatment Effect Bounds on Continuous Outcomes in Observational Studies—◆Joseph W. Hogan, Brown University;Tao Liu, Brown University

2:30 p.m. Evaluating Distributional Treatment Effect in Observational Studies—◆Jing Cheng, University of Florida

2:55 p.m. Using Genes as Instrumental Variables in Analyses of Social Network Data—A. James O'Malley, Harvard Medical School; ◆J. Niels Rosenquist, Harvard Medical School; Alan Zaslavsky, Harvard Medical School; Nicholas A. Christakis, Harvard University

3:20 p.m. Disc: Thomas Louis, Johns Hopkins Bloomberg School of Public Health

3:40 p.m. Floor Discussion

384 CC-114/115 (West)

■ ✪ Statistical Analysis of Complex Networks: A SAMSI Preview—Invited

Section on Statistical Computing, IMS, Section on Statistics and Marketing
Organizer(s): Eric Kolaczyk, Boston University
Chair(s): Josee Dupuis, Boston University School of Public Health

2:05 p.m. Overview of the Upcoming SAMSI Program: Highlights and Opportunities—◆Eric Kolaczyk, Boston University

2:15 p.m. Issues in Model Emulation/Evaluation in Dynamic Network Studies in Systems Biology—◆Mike West, Duke University

2:40 p.m. Three Aspects of Life on a Random Graph—◆Rick Durrett, Cornell University

3:05 p.m. Time-Varying Networks: Reverse Engineering and Analyzing Rewiring Social and Genetic Interactions—◆Eric Xing, Carnegie Mellon University

3:30 p.m. Floor Discussion

385 CC-202 (West)

Central Bank Forecasting—Invited

Business and Economic Statistics Section, International Chinese Statistical Association
Organizer(s): Michael McCracken, Federal Reserve Bank of St. Louis
Chair(s): Michael McCracken, Federal Reserve Bank of St. Louis

2:05 p.m. Short-Term Inflation Projections for the Euro Area—◆Domenico Giannone, ECARES

2:25 p.m. Forecasting in the Presence of Recent Structural Breaks—◆Simon Price, Bank of England

2:45 p.m. Forecast Distributions for Monetary Policymakers—◆Simon Potter, Federal Reserve Bank of New York

3:05 p.m. Disc: Mike Dueker, Federal Reserve Bank of St. Louis

3:25 p.m. Disc: Jim Nason, Federal Reserve Bank of Philadelphia

3:45 p.m. Floor Discussion

386 CC-223 (West)

■ ✪ Optimal Designs with Applications to the Pharmaceutical Industry—Invited

Statisticians in the Pharmaceutical Industry, ENAR
Organizer(s): Weng Kee Wong, University of California, Los Angeles
Chair(s): Weng Kee Wong, University of California, Los Angeles

2:05 p.m. Noninferiority Trial Designs for Odds Ratios and Risk Differences—◆Joan Hilton, University of California, San Francisco

2:30 p.m. Optimal Designs for Dose-Finding Studies—◆Frank Bretz, Novartis Pharma

2:55 p.m. Optimal Designs for Pharmacokinetic Models—◆Holger Dette, Ruhr-Universität Bochum; Tim Holland-Letz, Ruhr-Universität Bochum

3:20 p.m. Optimal Design in Bioequivalence Studies Analyzed with Nonlinear Mixed Effects Models—◆France Mentre, Universite Paris-Diderot; Thu Thuy N'guyen, Universite Paris-Diderot/INSERM; Anne Dubois, Universite Paris-Diderot/INSERM; Caroline Bazzoli, Universite Paris-Diderot/INSERM

3:45 p.m. Floor Discussion

387 CC-13 (East)

✪ Memorial Session for Barry Margolin—Invited

Memorial, Biometrics Section
Organizer(s): Bahjat Qaqish, The University of North Carolina at Chapel Hill
Chair(s): Jianwen Cai, The University of North Carolina at Chapel Hill

2:05 p.m. Life and Work of Barry H. Margolin: An Appreciation—◆Pranab Kumar Sen, The University of North Carolina at Chapel Hill

2:30 p.m. Detection of Differentially Expressed Groups of Genes Using a Multivariate Test Statistic in a Partially Paired Microarray Data Set—◆Byung Soo Kim, Yonsei University; Johan Lim, Seoul National University; Jayeon Kim, Yonsei University; Sang-Cheol Kim, Yonsei University; Donghyeon Yu, Seoul National University; Kyunga Kim, Seoul National University

2:55 p.m. Collapsing Ordered Categories for Detecting the Emergence of Toxic Chemical by Using Dose-Response Curves—◆Takashi Yanagawa, Kurume University

3:20 p.m. Benchmark Dose Estimation in Environmental Risk Assessment: From Cancer to Genetic Toxicity and Beyond—◆Walter W. Piegorsch, The University of Arizona

3:45 p.m. Floor Discussion

Invited Panels 2:00 p.m.–3:50 p.m.

388 CC-118 (West)

■ ✪ Future Developments in Experimental Design—Invited

Section on Quality and Productivity
Organizer(s): Dana C. Krueger, Kansas State University
Chair(s): Diane K. Michelson, ISMI

Panelists: ◆Douglas C. Montgomery, Arizona State University
◆Rachel T. Johnson, Naval Postgraduate School
◆Peter Goos, University of Antwerp
Disc: Bradley Jones, SAS Institute

3:45 p.m. Floor Discussion

389 CC-306 (West)

■ ✪ What If the 2020 Census Were the First Census? What Would We Do?—Invited

Social Statistics Section, International Chinese Statistical Association, Section on Government Statistics
Organizer(s): Hermann Habermann, United Nations Statistics Division
Chair(s): Hermann Habermann, United Nations Statistics Division

Panelists: ◆Lawrence D. Brown, University of Pennsylvania
◆John E. Rolph, University of Southern California
◆Joseph J. Salvo, New York City Department of City Planning
◆David A. Swanson, University of California, Riverside

3:45 p.m. Floor Discussion

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

390 CC-10 (East)

■ ✪ New Advances in Bayesian Survival Analysis—Topic-Contributed

Section on Bayesian Statistical Science, IMS, Section for Statistical Programmers and Analysts, Section on Risk Analysis
Organizer(s): Jun Lu, American University
Chair(s): Jun Lu, American University

2:05 p.m. A Dynamic Approach for the Piecewise Exponential Model with Random Time Grid—◆Dipak K. Dey, University of Connecticut

2:25 p.m. Bayesian Median Regression for Censored Survival Data via Transform-Both-Sides Model—◆Debajyoti Sinha, Florida State University; Jian-Chang Lin, Florida State University; Stuart R. Lipsitz, Brigham and Women's Hospital

2:45 p.m. Nonparametric Mixture Regression for Survival Data—◆Matthew Taddy, Chicago Booth

3:05 p.m. Disc: Zhigang Zhang, Memorial Sloan-Kettering Cancer Center

3:25 p.m. Floor Discussion

391 CC-218/219 (West)

■ Missing Data in Clinical Trials—Topic-Contributed

Biopharmaceutical Section
Organizer(s): Herbert Thijs, I-Biostat
Chair(s): Stephen Gulyas, Eli Lilly and Company

2:05 p.m. Missing Data in Clinical Trials—◆Herbert Thijs, I-Biostat

2:25 p.m. Missing Data in a Large Long-Term Clinical Trial: A Case Study—◆Dacheng Liu, Boehringer Ingelheim Pharmaceuticals, Inc.

2:45 p.m. Missing Data Methodology: Past, Present, and Future Trends—◆Cristina Labrador Sotto, I-Biostat

3:05 p.m. Disc: Michael J. Daniels, University of Florida

3:25 p.m. Floor Discussion

392 CC-207 (West)

■ Extensions of Propensity Score Methods—Topic-Contributed

Biometrics Section
Organizer(s): Wei (Peter) Yang, University of Pennsylvania
Chair(s): Marshall M. Joffe, University of Pennsylvania

2:05 p.m. Propensity Score Matching to Recover Latent Experiments—◆Ben B. Hansen, University of Michigan

2:25 p.m. Ratio of Mediator Probability Weighting for Estimating Natural Direct and Indirect Effects—◆Guanglei Hong, The University of Chicago

2:45 p.m. Selection of Propensity Functions for Causal Inference—◆Wei (Peter) Yang, University of Pennsylvania; Marshall M. Joffe, University of Pennsylvania; Sean Hennessy, University of Pennsylvania

3:05 p.m. Causal Effect Estimation Allowing Covariate Measurement Error Using Propensity Score—◆Yi Huang, University of Maryland Baltimore County; Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health

3:25 p.m. Disc: Kosuke Imai, Princeton University

3:45 p.m. Floor Discussion

393 CC-217 (West)

■ Biosimilarity for Follow-On Biologics—Topic-Contributed

Biopharmaceutical Section
Organizer(s): Jason Liao, Merck Research Laboratories
Chair(s): Rong Liu, Merck & Co., Inc.

2:05 p.m. Issues and Challenges in the Clinical Development of Biosimilars—◆Patrick FitzGerald Darken, Teva Branded Pharmaceutical Product R&D, Inc.; Steve Barash, Teva Branded Pharmaceutical Product R&D, Inc.

2:25 p.m. Pharmacokinetics (PK) Comparability for Follow-On Biologics—◆Jason Liao, Merck Research Laboratories

2:45 p.m. Evaluating Statistical Methods to Establish Clinical Similarity of Two Biologics: A Real-Life Example—◆Lei Lei, Amgen Inc.

3:05 p.m. Considerations in the Development of Biologics and Biosimilars: A Case Study—◆Amy Ko, Merck & Co., Inc.

3:25 p.m. Disc: Stella Grosser, FDA

3:45 p.m. Floor Discussion

394 CC-220 (West)

■ Statistical Issues in Multiregional and Bridging Trials—Topic-Contributed

Biopharmaceutical Section, ENAR
Organizer(s): Yi Tsong, CDER/FDA
Chair(s): Ling Chen, FDA

2:05 p.m. Strategies for Global Drug Development: Bridging vs. Multiregional Clinical Trials—◆William Wang, Merck & Co., Inc.; William Malbecq, Merck & Co., Inc.

2:25 p.m. Evaluation of the Strength of Bridging Evidence—◆Hsiao-Hui Tsou, National Health Research Institutes, Taiwan; Jung-Tzu Liu, National Health Research Institutes, Taiwan; Chin-Fu Hsiao, National Health Research Institutes, Taiwan; Yi Tsong, CDER/FDA

2:45 p.m. Exploration of Regional Impact on Efficacy Data in Antidepressant Clinical Trials—◆Peiling Yang, FDA

3:05 p.m. Regulatory and Statistical Issues in Multiregional Trials: Case Studies—◆Daphne T.Y. Lin, FDA; Greg Soon, CDER/FDA; Wen Zeng, FDA

3:25 p.m. Evaluation of Regional Treatment Effect in a Multiregional Clinical Trial—◆Yi Tsong, CDER/FDA; W-J Chang, National Health Research Institutes, Taiwan; Chin-Fu Hsiao, National Health Research Institutes, Taiwan; Hsiao-Hui Tsou, National Health Research Institutes, Taiwan

3:45 p.m. Floor Discussion

395 CC-205 (West)

■ Design and Analyses of Vaccine Trials for Evaluating Correlates of Protection—Topic-Contributed

Biopharmaceutical Section, Biometrics Section
Organizer(s): Robert Small, sanofi pasteur
Chair(s): Robert Small, sanofi pasteur

2:05 p.m. Immunological Correlates of Protection: Some Recent Methodological Developments and Future Challenges—◆Andrew J. Dunning, sanofi pasteur

2:25 p.m. Evaluating Correlates of Protection in Vaccine Studies—◆Ivan S.F. Chan, Merck Research Laboratories

2:45 p.m. Principal Stratification Methods for Evaluating Immunological Surrogate Endpoints in a Vaccine Efficacy Trial—◆Peter Gilbert, Fred Hutchinson Cancer Research Center

3:05 p.m. Disc: Janet Wittes, Statistics Collaborative, Inc.

3:25 p.m. Disc: Robert Kohberger, Blair and Company

3:45 p.m. Floor Discussion

3:05 p.m. Studying Recall Error in Survey Data Using Administrative Records —◆Sigrid Behr, BIPS - Uni Bremen; Johannes Eggs, BIPS - Uni Bremen; Gerrit Müller, IAB; Iris Pigeot-Kübler, BIPS - Uni Bremen; Walter Schill, BIPS - Uni Bremen; Rainer Schnell, Uni Duisburg-Essen; Mark Trappmann, IAB

3:25 p.m. Seam Effects in Quantitative Responses —◆Frederick Conrad, Institute for Social Research; Lance Rips, Northwestern University; Scott Fricker, Bureau of Labor Statistics

3:45 p.m. Floor Discussion

396 CC-301 (West)

■ ✪ In Honor of Rod Little's 60th Birthday: Statistical Analysis of Missing Data—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Ying Yuan, MD Anderson Cancer Center
Chair(s): Ying Yuan, MD Anderson Cancer Center

2:05 p.m. Estimation Bias in Complete-Case Analysis in Crossover Studies with Missing Data—◆Fang Liu, Merck Research Laboratories

2:25 p.m. Modeling Longitudinal Dyadic Data with Informative Dropout—◆Guangyu Zhang, University of Maryland; Ying Yuan, MD Anderson Cancer Center

2:45 p.m. A Test of Missing Completely at Random for Regression Data with Nonresponse—◆Gong Tang, University of Pittsburgh

3:05 p.m. Robust ROC Analysis Using Auxiliary Variables in the Presence of Missing Biomarker Values—◆Xiaoxi Zhang, Pfizer Inc.; Qi Long, Emory University

3:25 p.m. Addressing the Missing Data Problem in Clinical Trials—◆Linda Yau, Genentech

3:45 p.m. Floor Discussion

397 CC-211 (West)

Data Quality and Measurement Errors in Longitudinal Surveys—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Ting Yan, NORC
Chair(s): Frauke Kreuter, University of Maryland

2:05 p.m. Measurement Error in Measures of Change: Role of Dependent Interviewing and Other Questioning Techniques —◆Peter Lynn, University of Essex

2:25 p.m. Panel Conditioning in a Longitudinal Survey on Consumer Expenditures —◆Ting Yan, NORC; Kennon R. Copeland, NORC

2:45 p.m. The Relationship Between Nonresponse and Data Quality in the Current Population Survey —◆Scott Fricker, Bureau of Labor Statistics

3:05 p.m. Studying Recall Error in Survey Data Using Administrative Records — ◆Sigrid Behr, BIPS - Uni Bremen; Johannes Eggs, BIPS - Uni Bremen; Gerrit Müller, IAB; Iris Pigeot-Kübler, BIPS - Uni Bremen; Walter Schill, BIPS - Uni Bremen; Rainer Schnell, Uni Duisburg-Essen; Mark Trappmann, IAB

3:25 p.m. Seam Effects in Quantitative Responses — ◆Frederick Conrad, Institute for Social Research; Lance Rips, Northwestern University; Scott Fricker, Bureau of Labor Statistics

3:45 p.m. Floor Discussion

398 CC-122 (West)

JSE: A Resource for Innovative Statistics Instruction in a Data-Centric World—Topic-Contributed

Section on Statistical Education
Organizer(s): John Gabrosek, Grand Valley State University
Chair(s): John Gabrosek, Grand Valley State University

2:05 p.m. The Central Limit Theorem in the *Journal of Statistics Education*—◆Juana Sanchez, University of California, Los Angeles; Nicolas Christou, University of California, Los Angeles; Ivo Dinov, University of California, Los Angeles

2:25 p.m. Interpreting Variability in Various Types of Graphs: How Do Teachers Recognize and Understand Variability?—◆Linda L. Cooper, Towson University

2:45 p.m. Bus Arrivals and Bunching: A Data-Collection and Analysis Project—◆Robert Adam Molnar, Bellarmine University

3:05 p.m. Student-Centered Instruction in a Theoretical Statistics Course—◆Samantha C. Bates Prins, James Madison University

3:25 p.m. Using the Dice-Based Golf Game GOLO to Illustrate Discrete Probability Distributions and Sampling Distributions on Proportions—◆Paul L. Stephenson, Grand Valley State University; Mary Richardson, Grand Valley State University; John Gabrosek, Grand Valley State University; Diann Reischman, Grand Valley State University

3:45 p.m. Floor Discussion

399 CC-206 (West)

■ ✪ Consulting for Translational Research: Emerging Issues and Recommendations—Topic-Contributed

Section on Statistical Consulting, Section on Teaching of Statistics in the Health Sciences
Organizer(s): Wei-Ting Hwang, University of Pennsylvania
Chair(s): Jareen Meinzen-Derr, Cincinnati Children's Hospital Medical Center

2:05 p.m. Beyond T-Test: Statistical Consulting for Bench Scientists in the Era of Translational Research—◆Wei-Ting Hwang, University of Pennsylvania

2:25 p.m. Transition from Genetic Studies to Personalized Medicine: A Consulting Experience—◆Fang-Chi Hsu, Wake Forest University School of Medicine

2:45 p.m. Translational Research and the T1-T2 Continuum: Implications for Statisticians—◆Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center; Bin Huang, Cincinnati Children's Hospital Medical Center

3:05 p.m. The Bureaucracy of Translational Research: Regulatory Challenges Facing the Consulting Statistician—◆Christopher J. Swearingen, University of Arkansas for Medical Sciences; Todd G. Nick, University of Arkansas for Medical Sciences

3:25 p.m. Disc: Phyllis Gimotty, University of Pennsylvania

3:45 p.m. Floor Discussion

400 CC-111/112 (West)

Student Paper Competition—Topic-Contributed

Section on Statistical Computing, Section on Statistical Graphics
Organizer(s): Fei Chen, Avaya Labs
Chair(s): Fei Chen, Avaya Labs

2:05 p.m. Multivariate Dyadic Regression Trees for Sparse Learning Problems—Han Liu, Carnegie Mellon University; ◆Xi Chen, Carnegie Mellon University

2:25 p.m. Fast Stochastic Frank-Wolfe Algorithms for Nonlinear SVMs—◆Hua Ouyang, Georgia Institute of Technology; Alexander Gray, Georgia Institute of Technology

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

2:45 p.m. Discovering Graphical Granger Causality Using the Truncating Lasso Penalty—◆Ali Shojaie, University of Michigan; George Michailidis, University of Michigan

3:05 p.m. Functional Boxplots for Complex Data Visualization—◆Ying Sun, Texas A&M University; Marc Genton, Texas A&M University

3:25 p.m. Floor Discussion

401 CC-9 (East)

■ Models for High-Dimensional Data—Topic-Contributed

IMS, Section on Nonparametric Statistics
Organizer(s): Bala Rajaratnam, Stanford University
Chair(s): Bala Rajaratnam, Stanford University

2:05 p.m. Order-Preserving Factor Discovery with Misaligned Data—Arnau Tibau Puig, University of Michigan; Ami Wiesel, University of Michigan; ◆Alfred O. Hero, University of Michigan

2:25 p.m. A Penalized Likelihood Method for High-Dimensional Sparse Covariance Estimation—◆Kshitij Khare, University of Florida

2:45 p.m. Detecting Signal in High-Dimensional Genetic Data—◆Julia Salzman, Stanford University

3:05 p.m. Entropy and Divergence Estimation for High-Dimensional Data—◆Kumar Sricharan, University of Michigan; Raviv Raich, Oregon State University; Alfred O. Hero, University of Michigan

3:25 p.m. Inferential Methods for Graphical Models—◆Saeid Yasamin, Stanford University

3:45 p.m. Floor Discussion

402 CC-214 (West)

■ ✪ Health Policy Statistics Student Paper Awards—Topic-Contributed

Health Policy Statistics Section
Organizer(s): Recai Yucel, State University of New York at Albany
Chair(s): Recai Yucel, State University of New York at Albany

2:05 p.m. Near/Far Matching: Building a Stronger Instrument—◆Mike Baiocchi, University of Pennsylvania; Dylan Small, University of Pennsylvania; Scott Lorch, Children's Hospital of Philadelphia; Paul Rosenbaum, University of Pennsylvania

2:25 p.m. Regression Adjustment and Stratification by Propensity Score in Treatment Effect Estimation—◆Jessica Amelia Myers, Johns Hopkins Bloomberg School of Public Health; Thomas Louis, Johns Hopkins Bloomberg School of Public Health

2:45 p.m. Full Bayesian Procedure for File Linking to Analyze End-of-Life Medical Costs—◆Roee Gutman, Harvard University; Alan Zaslavsky, Harvard Medical School

3:05 p.m. Assessing Privacy Using the Area Under the Receiver-Operator Characteristic Curve—◆Gregory J. Matthews, University of Connecticut; Ofer Harel, University of Connecticut; Robert H. Aseltine, University of Connecticut Health Center

3:25 p.m. Bayesian Semiparametric Analysis of Case-Control Studies with Time-Varying Exposures—◆Dhiman Bhadra, University of Florida; Michael J. Daniels, University of Florida; Malay Ghosh, University of Florida; Bhramar Mukherjee, University of Michigan

3:45 p.m. Floor Discussion

403 CC-116 (West)

David P. Byar Young Investigator Award, Session 2/3—Topic-Contributed

Biometrics Section
Organizer(s): Hormuzd A. Katki, National Cancer Institute
Chair(s): David Williamson, CDC

2:05 p.m. An Adaptive Two-Step Procedure to Control Mean Number of False Discoveries—◆Dongmei Li, The University of Hawaii at Manoa

2:25 p.m. Incorporating Sampling Bias in Analyzing Bivariate Survival Data with Interval Sampling and Application to HIV Research—◆Hong Zhu, Johns Hopkins Bloomberg School of Public Health; Mei-Cheng Wang, The Johns Hopkins University

2:45 p.m. Functional Clustering in Nested Designs—◆Abel Rodriguez, University of California, Santa Cruz; David Dunson, Duke University

3:05 p.m. Nonparametric Covariate Adjustment in Conditional Copulas: An Application to Twin Birth Weights—◆Elif Fidan Acar, University of Toronto; Radu Craiu, University of Toronto; Fang Yao, University of Toronto

3:25 p.m. High-Dimensional ODEs Coupled with Mixed-Effects Modeling Techniques for Gene Regulatory Network Identification—◆Tao Lu, University of Rochester; Hua Liang, University of Rochester; Hulin Wu, University of Rochester School of Medicine and Dentistry

3:45 p.m. Floor Discussion

Topic-Contributed Panel
2:00 p.m.–3:50 p.m.

404 CC-224 (West)

■ Ask Good Questions—Topic-Contributed

ASA-MAA Joint Committee on Undergraduate Statistics, Section on Statistical Education

Organizer(s): Patricia B. Humphrey, Georgia Southern University
Chair(s): Allan Rossman, Cal Poly

Panelists: ◆Patricia B. Humphrey, Georgia Southern University
◆John D. McKenzie Jr., Babson College
◆Edward Mansfield, The University of Alabama
◆Tom Short, John Carroll University

3:45 p.m. Floor Discussion

Contributed Sessions
2:00 p.m.–3:50 p.m.

405 CC-117 (West)

■ Survival Analysis—Contributed

Biometrics Section, Section on Risk Analysis

Chair(s): Mimi Kim, Albert Einstein College of Medicine

2:05 p.m. A Novel Rank Rest for a Time-to-Event Outcome That Incorporates Information on a Surrogate Event—◆Pamela A. Shaw, National Institute of Allergy and Infectious Diseases; Michael P. Fay, National Institute of Allergy and Infectious Diseases

2:20 p.m. Sample-Size Calculation for the Andersen-Gill Model in the Presence of Subject Heterogeneity in the Baseline Risk—◆Antje Jahn-Eimermacher, University of Mainz; Katharina Ingel, University of Mainz

2:35 p.m. Semiparametric Hybrid Empirical Likelihood Inference for Two-Sample Comparison with Censored Data—◆Haiyan Su, Montclair State University; Hua Liang, University of Rochester; Mai Zhou, University of Kentucky

2:50 p.m. Checking the Short-Term and Long-Term Hazard Ratio Model for Survival Data—◆Song Yang, National Heart, Lung, and Blood Institute; Yichuan Zhao, Georgia State University

3:05 p.m. Extension of Kaplan-Meier Methods in Longitudinal Observational Studies with Time-Varying Exposure—◆Stanley Xu, Kaiser Permanente Colorado; Susan Shetterly, Kaiser Permanente Colorado; David Powers, U.S. Census Bureau; Marsha Raebel, Kaiser Permanente Colorado; Michael Ho, Denver VA Medical Center; Thomas Tsai, Denver VA Medical Center; David Magid, Kaiser Permanente Colorado

3:20 p.m. Assessment of Existing Time-to-Recurrent-Event Data: An Application to Hematology Drug Products—◆Qing Xu, FDA; Ram C. Tiwari, FDA; Jyoti Zalkikar, FDA

3:35 p.m. The Odd Weibull Family for Modeling Incomplete Data—◆Kahadawala Cooray, Central Michigan University

406 CC-302/303 (West)

■ ✪ Gene Expression and Methylation—Contributed

Biometrics Section

Chair(s): Kenneth R. Hess, MD Anderson Cancer Center

2:05 p.m. A Model-Based Method for Detecting Early Differentially Expressed Genes in Cellular Differentiation Processes—◆Feng Hong, Harvard University

2:20 p.m. Using Gene Gxpression to Predict Dose-Response Data—◆Philippe Haldermans, I-Biostat; Ziv Shkedy, Universiteit Hasselt

2:35 p.m. The Role of Proxy Genes in Predictive Models: An Application to Early Detection of Prostate Cancer—Jay Magidson, Statistical Innovations Inc.; William Oh, Mount Sinai School of Medicine; Robert Ross, Infinity Pharmaceuticals; Philip Kantoff, Dana-Farber Cancer Institute; ◆Karl Wassmann, Source MDx

2:50 p.m. Functional Embedding in the Discriminant Analysis of Gene Expression Profiles—◆Ping-Shi Wu, Lehigh University

3:05 p.m. Multiple Hypothesis Testing by Clustering of Gene Profiles—◆Leesa Francis Wockner, University of Queensland; Geoffrey J. McLachlan, University of Queensland; Ian Wood, University of Queensland

3:20 p.m. Integrating Methylation Sequencing Data from Multiple Platforms—◆Adam B. Olshen, University of California, San Francisco; Ting Wang, Washington University in St. Louis; Joseph Costello, University of California, San Francisco

3:35 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

407 CC-221 (West)

■ Multiple Comparisons or Statistical Significance—Contributed

Biometrics Section, Biopharmaceutical Section

Chair(s): Wenge Guo, New Jersey Institute of Technology

2:05 p.m. Multiple Comparisons Adjustment in Exploratory and Confirmatory Studies—◆Shiying Wu, RTI International

2:20 p.m. Pointwise Testing of Functional Data—◆Shubing Wang, Merck & Co., Inc.; Jia Cao, Columbia University

2:35 p.m. Using False Discovery Rates to Determine Cutoffs for Cluster Membership—◆Johanna Hardin, Pomona College

2:50 p.m. Sample Size Determination in Two-Sided Distribution-Free Treatment vs. Control Multiple Comparisons—◆Chunpeng Fan, sanofi-aventis; Donghui Zhang, sanofi-aventis

3:05 p.m. Confidence Intervals for Dependent Data: Equating Nonoverlap with Statistical Significance—◆David Afshartous, University of Miami Miller School of Medicine; Richard A. Preston, University of Miami Miller School of Medicine

3:20 p.m. Floor Discussion

408 CC-222 (West)

■ Adaptive Designs—Contributed

Biopharmaceutical Section

Chair(s): Katherine Monti, Rho, Inc.

2:05 p.m. Optimal Phase II Decision Rules in a Seamless PhaseII/III Clinical Trial—◆Bo Jin, Merck Research Laboratories

2:20 p.m. Overall FDR Control in a Two-Stage Adaptive Design—◆Jingjing Chen, Temple University; Sanat K. Sarkar, Temple University

2:35 p.m. Generalized Hypothesis Testing in Interim Treatment Selection with a Flexible Selection Margin—◆Yujun Wu, sanofi-aventis; Peng-Liang Zhao, sanofi-aventis

2:50 p.m. Improving the Interim Analysis Process in Adaptive Design Trials—Xiaoyin Fan, Merck & Co., Inc.; ◆Mary Varughese, Merck & Co., Inc.

3:05 p.m. Interval Estimation in Two-Stage, Drop-the-Losers Clinical Trials with Flexible Treatment Selection—◆Dan Neal, University of Florida; George Casella, University of Florida; Mark Yang, University of Florida; Samuel S. Wu, University of Florida

3:20 p.m. Confidence Intervals for the Selected Treatment Effect in Multistage Adaptive Designs—◆Ionut Bebu, Georgetown University Medical Center; Vladimir Dragalin, Pfizer Inc.; George Luta, Georgetown University

3:35 p.m. Floor Discussion

409 CC-209 (West)

Multiplicity in Clinical Trials—Contributed

Biopharmaceutical Section, ENAR

Chair(s): Robert Abugov, Food and Drug Administration

2:05 p.m. An Improved Method for Testing Two Families of Endpoints—◆Haihong Li, Vertex Pharmaceuticals; Abdul J. Sankoh, Vertex Pharmaceuticals

2:20 p.m. Multiple Testing Problems with General Logical Restrictions in Clinical Trials—◆Alex Dmitrienko, Eli Lilly and Company; Ajit C. Tamhane, Northwestern University

2:35 p.m. Compare Sensitivity of Multiple Measures in Discerning a Treatment Effect—◆Hongwei Wang, Merck & Co., Inc.; Arvind K. Shah, Merck Research Laboratories

2:50 p.m. Multiple Endpoints Analysis with Latent Variable via Pseudolikelihood—◆Juanmei Liu, Medtronic; Minglei Liu, Medtronic

3:05 p.m. A Gatekeeping Multiple Comparison Procedure Based on the Hommel Test for Clinical Trials with Hierarchically Ordered Objectives—◆Thomas Brechenmacher, Dainippon Sumitomo Pharma Co., Ltd.; Jane Xu, Dainippon Sumitomo Pharma America, Inc.; Alex Dmitrienko, Eli Lilly and Company; Ajit C. Tamhane, Northwestern University

3:20 p.m. On Optimal Grouping Strategies Using Parallel Gatekeeping Procedures—◆Haiyuan Zhu, Forest Research Institute

3:35 p.m. A Multiplicity Strategy Incorporating Fixed Sequential, Hochberg, and Fallback Procedures—◆Duane Snavely, Merck & Co., Inc.; Kenneth Liu, Merck & Co., Inc.

410 CC-201 (West)

✪ Unit Roots and Cointegration—Contributed

Business and Economic Statistics Section

Chair(s): Neil R. Ericsson, Federal Reserve Board

2:05 p.m. Functional Coefficient Autoregressive Models for Nonlinear Time Series—Alireza Tahai, Mississippi State University; ◆Mehrzad Netadj, Mississippi State University

2:20 p.m. A Simple Panel Stationarity Test in the Presence of Cross-Sectional Dependence—◆Kaddour Hadri, Queen's University Belfast

2:35 p.m. Asymptotically Similar Unit Root Tests in the Presence of Autocorrelated Errors—◆Michalis Stamatogiannis, University of Groningen

2:50 p.m. Unit Roots, Level Shifts, and Trend Breaks in Per Capita Output: A Robust Evaluation—◆Mohitosh Kejriwal, Purdue University; Claude Lopez, University of Cincinnati

3:05 p.m. Nonparametric Testing for Linearity in Cointegrated Error-Correction Models—◆Byeongseon Seo, Korea University

3:20 p.m. Phase and Coherency in a Neighborhood of Zero Frequency for Bivariate Long Memory Series—◆Rebecca J. Sela, New York University; Clifford M. Hurvich, New York University

3:35 p.m. Floor Discussion

411 CC-203 (West)

✪ Cross Section and Panel—Contributed

Business and Economic Statistics Section

Chair(s): Kei Hirano, The University of Arizona

2:05 p.m. A Shrinkage Approach to Fixed Effects Estimation of Nonlinear Panel Data Models—◆Dalia A. Ghanem, University of California, San Diego

2:20 p.m. On the Estimation of the Determinants of Technical Inefficiency in the Stochastic Frontier Production Function Model—◆Seongho Song, University of Cincinnati; Chansoo Kim, Kongju National University; David Taesok Yi, Xavier University; Younshik Chung, Pusan National University

2:35 p.m. Study of Customer Attitudes Toward Firm and Competition Using Multivariate Nonlinear Models for Counts—◆Shan Hu, University of Connecticut; Nalini Ravishanker, University of Connecticut; Rajkumar Venkatesan, University of Virginia

2:50 p.m. Partially Adaptive Estimation of Truncated Regression Models: A Comparison with Several Semiparametric Estimators—◆Patrick Ansel Turley, Brigham Young University; James B McDonald, Brigham Young University

3:05 p.m. Approximate Confidence Limits for a Proportion of the Hypergeometric Probability Distribution: Applications in Audits—◆Yevgeniy Voinov, KIMEP

3:20 p.m. A Goodness of Fit for Difference-in-Difference Models—◆Heungsun Park, Hankuk University of Foreign Studies; Zoonky Lee, Yonsei University; Sang-goo Lee, Seoul National University; Hyunsoo Kim, Kyonggi University

3:35 p.m. Floor Discussion

412 CC-16 (East)

■ Nonparametric Modeling and Prediction—Contributed

IMS

Chair(s): Yuefeng Wu, Cornell University

2:05 p.m. Prediction Intervals for the Local Spectrum Estimate—◆Kara Stevens, University of Bristol; Guy Nason, University of Bristol

2:20 p.m. Nonparametric Tolerance Region/Envelope and Applications—◆Wei Li, Rutgers University; Regina Liu, Rutgers University; Minge Xie, Rutgers University

2:35 p.m. Approximation by Log-Concave Distributions, with Applications to Regression—◆Lutz Duembgen, University of Bern; Dominic Schuhmacher, University of Bern; Richard Samworth, University of Cambridge

2:50 p.m. On Spline Regression, Fractal Processes, and Olfactory Coding in Insects—◆Jan Beran, University of Konstanz; Arno Weiershaeuser, University of Konstanz

3:05 p.m. Free Knots Splines for Generalized Regression—◆Jing Wang, University of Illinois at Chicago

3:20 p.m. Average Case Recovery of Multichannel Sparse Signals Under Noise—◆Xi Luo, University of Pennsylvania; Tony Cai, University of Pennsylvania

3:35 p.m. Reconstruction of Conditional Expectations for Regression Calibration from the Moment Problem—◆Charles Hagwood, National Institute of Standards and Technology

413 CC-121 (West)

Statistical Methodology—Contributed

Section for Statistical Programmers and Analysts, Section on Government Statistics

Chair(s): Todd Case, Bristol-Myers Squibb

2:05 p.m. Expanding the Domains and Methods for Creating Directional Cauchy Distributions—◆Tom Downs, Research Statistics, Inc.

2:20 p.m. Analysis of a 2-by-2 Crossover Trial of Binary Data with Missing Values Using Multiple Imputation—◆Junxiang Luo, Eli Lilly and Company; Timothy Costigan, Eli Lilly and Company; Eileen Brown, Eli Lilly and Company

2:35 p.m. Making Inference for Inequality-Constrained Regression Problems—◆Jinde Wang, Nanjing University

2:50 p.m. Robust Multiple Imputation Based on Bayesian Bootstrap Predictive Mean Matching—◆Florian Koller-Meinfelder, Universität Bamberg

3:05 p.m. Dose-Response Analysis Using Generalized Propensity Score: An Application in Home Health Care—◆Iordan Slavov, Visiting Nurse Service of New York

3:20 p.m. Generalized Point Estimation with Application to Small Response Estimation—◆Sam Weerahandi, Pfizer Inc.

3:35 p.m. Finding the Best Model: To Use GLMSELECT, GLM, or REG ...That Is the Question!—◆Heather Murphy, Eli Lilly and Company

414 CC-210 (West)

■ ✪ The Use of Administrative Records to Inform Survey Research—Contributed

Section on Government Statistics, Social Statistics Section
Chair(s): Deborah Griffin, U.S. Census Bureau

2:05 p.m. Assessing Statistical Data Quality in Case of Register-Based Data Production—◆Wilfried Grossmann, University of Vienna

2:20 p.m. Quality and Quantity: Using Administrative Data for Scientific Purposes in Labor Market Research—◆Patrycja Scioch, IAB

2:35 p.m. Construction of a Retail Outlet Establishment Frame Using Commercially Available Lists—◆Benita Jean O'Colmain, ICF Macro; Paula Ellen Mason, Energy Information Administration; Pedro Saavedra, ICF Macro; Jeffrey E. Foarde Jr., ICF Macro; Bin Zhang, Energy Information Administration; Amerine Woodyard, Energy Information Administration

2:50 p.m. Crime Mapping in The Netherlands—◆Elke Amelie Moons, Statistics Netherlands; Leanne Houben, Statistics Netherlands

3:05 p.m. Source Selection: Selecting and Evaluating America's Expenditures—◆Barry Steinberg, Bureau of Labor Statistics; Brett Creech, Bureau of Labor Statistics

3:20 p.m. An Innovative Approach to Frame Development for Hard-to-Identify Populations—◆Tina Mainieri, Survey Sciences Group, LLC; Jeri Mulrow, National Science Foundation; Sam Schildhaus, National Science Foundation; Emilda Rivers, National Science Foundation

3:35 p.m. Floor Discussion

415 CC-14 (East)

Functional and Longitudinal Data Methods—Contributed

Section on Nonparametric Statistics
Chair(s): Donatello Telesca, University of California, Los Angeles

2:05 p.m. Robust Diagnostic Measures for the Functional Linear Model with Scalar Response—◆Nedret Billor, Auburn University; Pallavi Sawant, Auburn University

2:20 p.m. Nonparametric Methods for Longitudinal Data in Factorial Experiments with R: A New Package 'nparLD'—◆Kimihiro Noguchi, University of California, Davis; Frank Konietschke, Department of Medical Statistics; Yulia R. Gel, University of Waterloo; Edgar Brunner, University of Goettingen

2:35 p.m. Lower-Dimensional Approximation for Sparse Functional Data with Its Application to Screening Young Children's Growth Paths—◆Wenfei Zhang, Columbia University

2:50 p.m. Local Linear Estimator for Functional Data—◆Kathryn Prewitt, Arizona State University; Ursula Mueller-Harknett, Texas A&M University

3:05 p.m. Recent History Functional Linear Models for Sparse Longitudinal Data—◆Kion Kim, Penn State; Damla Senturk, Penn State

3:20 p.m. Floor Discussion

416 CC-15 (East)

Nonparametric Survival Analysis—Contributed

Section on Nonparametric Statistics, Section on Risk Analysis
Chair(s): Yichuan Zhao, Georgia State University

2:05 p.m. Shrinkage Nonparametric Estimation of Median Survival Time from Censored Data—◆Mohammad Hossein Rahbar, The University of Texas Health Science Center at Houston; Weiwei Wang, The University of Texas Health Science Center at Houston; Jing Ning, The University of Texas Health Science Center at Houston

2:20 p.m. Nonparametric Test of Treatment Effects When Design Plans Are Combined—◆Yvonne M. Zubovic, Indiana University Purdue University Fort Wayne; Chand Chauhan, Indiana University Purdue University Fort Wayne

2:35 p.m. Two-Sample Semiparametric Proportional (Reverse) Hazard Model—◆Zhong Guan, Indiana University South Bend; Cheng Peng, University of Southern Maine

2:50 p.m. Minimum Hellinger Distance Estimation for a Semiparametric Mixture Model with Two-Sample Censored Data—◆Yayuan Zhu, University of Calgary; Xuewen Lu, University of Calgary; Jingjing Wu, University of Calgary

3:05 p.m. Tensor Spline-Based Sieve Estimation for the Joint Distribution Function with Bivariate Current Status Data—◆Yuan Wu, The University of Iowa; Ying Zhang, The University of Iowa

3:20 p.m. Inference for Treatment Efficacy on Survival Probability in Randomized Clinical Trials with Noncompliance—◆Ying Zhou, University of California, Los Angeles

3:35 p.m. Floor Discussion

417 CC-119 (West)

■ Applications of Network Modeling—Contributed

Section on Statistics in Defense and National Security
Chair(s): David J. Marchette, Naval Surface Warfare Center

2:05 p.m. Multilevel Models for the Analysis of Communication and Production Networks in Academia—◆Susana Eyheramendy, Pontificia Universidad Católica de Chile; Carlos Rodriguez, Pontificia Universidad Católica de Chile; Cristobal Garcia, Pontificia Universidad Católica de Chile

2:20 p.m. An Investigation of Locality Region for Scan Statistics in a Time Series of Graphs—◆Kristin Ash, Naval Surface Warfare Center; David J. Marchette, Naval Surface Warfare Center; Carey E. Priebe, The Johns Hopkins University

2:35 p.m. Fusion Analysis of Various Invariants in Edge-Attributed Networks—◆Andrey Rukhin, Naval Surface Warfare Center

2:50 p.m. Statistical Surveillance and Alarm Activation in Sensor Networks—◆James A. Shine, U.S. Army; James E. Gentle, George Mason University

3:05 p.m. Multi-Agent Simulation—◆Yasmin H. Said, George Mason University

3:20 p.m. Inferring Disease-Related Interaction Network—◆Qi Zhang, Fred Hutchinson Cancer Research Center; Pei Wang, Fred Hutchinson Cancer Research Center

3:35 p.m. Visualization-Driven Statistical Analysis of Social Networks for Threat Detection and Characterization—◆Pranab K. Banerjee, Space Dynamics Laboratory

418 CC-204 (West)

Topics in Genetic Epidemiology—Contributed

Section on Statistics in Epidemiology, Biometrics Section
Chair(s): Huilin Li, National Cancer Institute

2:05 p.m. Two-Phase Study: Application to Gene-Environmental Interaction—◆Jaeil Ahn, University of Michigan; Bhramar Mukherjee, University of Michigan

2:20 p.m. Detection of Parent-of-Origin Effects for Quantitative Traits in Complete and Incomplete Nuclear Families with Multiple Children—◆Feng He, The University of Hong Kong; Wing Kam Fung, The University of Hong Kong; Yue-Qing Hu, Nanjing Medical University; Ji-Yuan Zhou, Southern Medical University

2:35 p.m. A Gene-Based Multilevel Model for Candidate Gene Resequencing Studies Augmented by Population Genetic Information—◆Christopher Ryan King, The University of Chicago; Paul J. Rathouz, The University of Chicago; Dan Nicolae, The University of Chicago

2:50 p.m. Genetic Matching for Robust and Powerful Detection of Gene-Gene Interactions in Case-Control Studies—◆Samsiddhi Bhattacharjee, National Cancer Institute; Nilanjan Chatterjee, National Cancer Institute

3:05 p.m. A Novel Method for Testing Association of Multiple Genetic Markers with a Multinomial Trait: Application to the Study of Genetic Contribution to Two Mechanisms for Prediabetes—◆Soonil Kwon, Cedars-Sinai Medical Center; Mark O. Goodarzi, Cedars-Sinai Medical Center; Kent D. Taylor, Cedars-Sinai Medical Center; Jinrui Cui, Cedars-Sinai Medical Center; Y-D Chen, Cedars-Sinai Medical Center; Jerome I. Rotter, Cedars-Sinai Medical Center; Willa Hsueh, The Methodist Hospital Research Institute; Xiuqing Guo, Cedars-Sinai Medical Center

3:20 p.m. An Extended Propensity Score Approach for the Analysis of Population-Based Genetic Association Studies—◆Huaqing Zhao, University of Pennsylvania School of Medicine; Timothy R. Rebbeck, University of Pennsylvania School of Medicine; Nandita Mitra, University of Pennsylvania School of Medicine

3:35 p.m. Haplotype Association Analysis Combining Family Triads and Population Case-Control Data in Genetic Association Study—◆Shu-Hui Wen, Tzu-Chi University; Miao-Yu Tsai, National Changhua University of Education

419 CC-216 (West)

■ Analysis Applications with Survey Data—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section
Chair(s): Mary H. Mulry, U.S. Census Bureau

2:05 p.m. Sampling and Weighting Issues in the National Immunization Survey Evaluation Study—◆Kimball Jonas, U.S. Census Bureau

2:20 p.m. Modeling H1N1 Vaccination Rates—Nadarajasundaram Ganesh, NORC; James A. Singleton, National Center for Immunization and Respiratory Diseases; ◆Kennon R. Copeland, NORC; Tammy Santibanez, National Center for Immunization and Respiratory Diseases; Nicholas Davis, NORC

2:35 p.m. Using the National Inpatient Sample (NIS) to Identify Injury Patterns from External Causes of Injury—◆Heather Watson, Exponent, Inc.; Madhu Iyer, Exponent, Inc.

2:50 p.m. Ambient Air Pollutants and Mortality: A Meta-Analysis—◆Elizabeth Anne Stanwyck, University of Maryland Baltimore County; Bimal K. Sinha, U.S. Environmental Protection Agency

3:05 p.m. Look Back in Anger? Ten Years on: The Statistical Issues in Bush vs. Gore—◆Colin McIlheney, PricewaterhouseCoopers LLP

3:20 p.m. Logistic Regression Analysis of Disabled Employee Data—◆Berna Yazici, Anadolu University; Betül Kan, Anadolu University; Yener Sisman, Anadolu University; Fatma Kocabas, Anadolu University

3:35 p.m. Serial Comparisons in Small Domain Models: A Residual-Based Approach—◆Wesley Basel, U.S. Census Bureau; Sam Hawala, U.S. Census Bureau; David Powers, U.S. Census Bureau

420 CC-212 (West)

■ ✪ Issues in Sample Design: Frame Construction, Sample Selection, and Maintenance—Contributed

Section on Survey Research Methods, Section on Government Statistics
Chair(s): Jana Asher, StatAid

2:05 p.m. Multiple Frame Sample Design and Estimation for the 2008 National Sample Survey of Registered Nurses: Theory, Implementation, and Assessment—◆Ralph DiGaetano, Westat; Jim Green, Westat; Jay Clark, Westat; Marshall Fritz, U.S. Department of Health and Human Services

2:20 p.m. Frame Construction and Sample Maintenance for Current Economic Surveys—◆Katrina T. Washington, U.S. Census Bureau; James N. Burton, U.S. Census Bureau; Ruth Detlefsen, U.S. Census Bureau

2:35 p.m. Selecting Kindergarten Children by Three-Stage Indirect Sampling—◆Hans Kiesl, Regensburg University of Applied Sciences

2:50 p.m. Results of the Pilot Survey in the Redesign of the Canadian Survey of Household Spending—◆Johanne Tremblay, Statistics Canada; Jenny Lynch, Statistics Canada; Guylaine Dubreuil, Statistics Canada

3:05 p.m. Evaluating Sample Design Issues in the National Compensation Survey—◆Gwyn R. Ferguson, Bureau of Labor Statistics; Chester Ponikowski, Bureau of Labor Statistics; Joan Coleman, Bureau of Labor Statistics

3:20 p.m. Challenges in the Design of the Canadian Community Health Survey on Healthy Aging—◆Leon Jang, Statistics Canada; Martin Provost, Statistics Canada; Adam Sherk, Statistics Canada

3:35 p.m. Eliminating Invisible Boundaries in the National Children's Study While Preserving Selection Probabilities—Edward Marks English, NORC; ◆Colm O'Muircheartaigh, NORC

421 CC-213 (West)

Issues in the Measurement of Race/Ethnicity and Nativity—Contributed

Social Statistics Section, Section on Government Statistics
Chair(s): Peter Lobo, New York City Department of City Planning

2:05 p.m. Not Simply Black and White: An Analysis of Attitudes Toward Interracial Relationships—◆Simone Anke Robers, American Institutes for Research

2:20 p.m. Measurement Issues in Statistics Based on the 'Some Other Race' Category—◆Frank Hobbs, U.S. Census Bureau; Nicholas Jones, U.S. Census Bureau; Roberto Ramirez, U.S. Census Bureau

2:35 p.m. The Measurement of Race and Ethnicity in the Censuses of Australia, Canada, and the United States: Parallels, Paradoxes, and Progressions—Gillian Stevens, University of Alberta; ◆Hiromi Ishizawa, The George Washington University; Douglas Grbic, Association of American Medical Colleges

2:50 p.m. A Case Study of the Relative Differences in the Recording of Ethnicity in Birth Records and in the Census: The Hispanic Population of Los Angeles County, California—David A. Swanson, University of California, Riverside; ◆Matt Kaneshiro, University of California, Riverside; Amanda Martinez, University of California, Riverside

3:05 p.m. Estimating the Size of the Nonimmigrant Population Residing in the United States—◆Bryan C. Baker, U.S. Department of Homeland Security

3:20 p.m. Floor Discussion

422 CC-17 (East)

Analysis of Genetic and Health Risk Data—Contributed

SSC, Biometrics Section, Section on Statistics and the Environment

Chair(s): Luke Bornn, The University of British Columbia

2:05 p.m. Genes Selection and Components Retention for Supervised Survival Prediction Models—◆Keyue Ding, Queen's University

2:20 p.m. Gene Set Analysis with Correlated Gene Expressions—◆Qiaohao Zhu, University of Alberta; Keumhee Chough Carriere, University of Alberta

2:35 p.m. Imputation Strategies for Missing Binary Outcomes in Cluster Randomized Trials—◆Jinhui Ma, McMaster University; Noori Akhtar-Danesh, McMaster University; Lisa Dolovich, McMaster University; Lehana Thabane, McMaster University

2:50 p.m. Identification of Global Meteorological Factors in the Incidence of Acute Heart Failure—◆Jeffrey Alexander Bakal, Canadian VIGOUR Centre; Paul W. Armstrong, Canadian VIGOUR Centre; Cynthia M. Westerhout, Canadian VIGOUR Centre; Justin A. Ezekowitz, University of Alberta

3:20 p.m. Critically Review the Structural Equation Modeling to Investigate Effective Connectivity in fMRI Studies—◆Qing Guo, McMaster University; Geoff Hall, McMaster University; Steven Hanna, McMaster University

3:35 p.m. Nonparametric State Space Models for Longitudinal Data—Peter Song, University of Michigan; ◆Daimin Shi, Southwestern University of Finance and Economics

Contributed Poster Presentations 2:00 p.m.–3:50 p.m.

423 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Business and Economic Statistics Section—Contributed

Business and Economic Statistics Section

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

01 Comparison of Some Dimension-Reduction Techniques in Multivariate Nonstationary Time Series: A Case Study—◆Yennyfer Johana Feo, Universidad Nacional de Colombia

02 Skew Factor Models and Dynamic Skew Factor Models—◆Beverly Jane Gaucher, Texas A&M University

03 Constrained Estimation with Distorted Data by the Least-Squares Criterion—◆Luis Frank, University of Buenos Aires

04 Valuing Markets Using Linear Mixed Effects Models—◆Jennifer J. Huang, Google; Choongsoon Bae, Google; Jim Koehler, Google

05 Does a Hybrid Regression Provide the Optimal Prediction Equation?—◆Anish Thomas,

06 Has the Housing Market Hit Bottom?—◆Kristen Elizabeth Gulledge, North Carolina State University; Emily Wisner, North Carolina State University

07 Risky Business: The 'Failures' of Risk Management—◆Christine Wu, North Carolina State University; John Ryland Pigg, North Carolina State University

08 Total Alcohol Expenditure in the United States: Federal Economic Statistics and Industry Data—◆Gary Huang, ICF Macro; Nebiyu Taddese, U.S. Department of the Treasury; Andrey Vinokurov, ICF Macro

09 Intradaily Smoothing Splines for Time-Varying Regression Models of Hourly Electricity Load—◆Virginie Dordonnat, EDF R&D; Marius Ooms, Vrije Universiteit Amsterdam; Siem Jan Koopman, Vrije Universiteit Amsterdam

10 Segmenting Nonstationary Time Series via Quantile Autoregressions—◆Ming Zhong, University of California, Davis

11 Testing the Markov Assumption Using Corporate Credit Ratings—◆Jenna Rice, North Carolina State University; Nicole Bader, North Carolina State University

12 Seasonal Volatility Models—◆Ankit Doshi, University of Manitoba; ◆Julieta Frank, University of Manitoba; Aerambamoorthy Thavaneswaran, University of Manitoba

13 Volatility Modeling of High-Frequency Electric Price Data—Asitha Edirisinghe, Missouri University of Science and Technology; ◆V.A. Samaranayake, Missouri University of Science and Technology

14 Specification Issues in Mixed-Frequency Time Series Modeling—◆Klaus Wohlrabe, Ifo Institute for Economic Research

15 Portfolio Management Strategies—Les Yen, University of Phoenix/NVA; ◆Dalene Wisley, University of Phoenix/NVA

16 Modeling Apartment Characteristic Valuations—◆Caroline Swiger, Clemson University; Julia Sharp, Clemson University; William Bridges, Clemson University

17 Statistical Analysis on Market Microstructure Models—◆Feng Liu, The University of North Carolina at Chapel Hill

424 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Nonparametric Statistics—Contributed

Section on Nonparametric Statistics

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

18 A Nonparametric Ability Measure—◆Nan Lin Kong, Educational Testing Service

19 Data-Driven Confidence Interval for the Difference of Two Median Survival Times—◆Yu-Mei Chang, Tunghai University

20 On Semiparametric Exponential Tilt Regression Models—◆Alan Huang, The University of Chicago; Paul J. Rathouz, The University of Chicago

21 Nonparametric Maximum Likelihood Estimation for Current Status Data with Misclassification—◆Antonio Eduardo Gomes, Universidade de Brasilia

22 Analysis of Proposal Rating Data—◆Fang Duan, Southern Methodist University

23 Direct Density Estimation of L-Estimates via Characteristic Functions with Applications—◆Dongliang Wang, State University of New York at Buffalo; Alan Hutson, State University of New York at Buffalo; Jeffrey Miecznikowski, State University of New York at Buffalo

24 Simultaneous Multiple Comparisons with a Control Using Medians and Permutation Tests—◆Scott Richter, The University of North Carolina at Greensboro; Melinda McCann, Oklahoma State University

25 Generalized Exponential Weighted Moving Average for Time Series Forecasting—◆Lu Wang, University of California, Davis

425 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Statistical Consulting—Contributed

Section on Statistical Consulting

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

26 Bias and Efficiency Effects from Unaccounted Correlation—◆Adam Sima, Virginia Commonwealth University; Roy Sabo, Virginia Commonwealth University

27 Receiver Operating Characteristic (ROC) Analysis Can Improve the Correlation Between Histological Grade (HG) and Oncotype-Dx (ONC) Recurrence Risk (RR) in Breast Cancer (BC)—◆Yufeng Li, The University of Alabama at Birmingham; Choo Hyung Lee, The University of Alabama at Birmingham; Omar Hameed, The University of Alabama at Birmingham

28 Resources and Recognition of Applied Statisticians in ASA—◆Marlene J. Egger, The University of Utah School of Medicine; Jennifer Gauvin, GlaxoSmithKline; Comm. on Applied Statisticians, ASA

29 Can Spread of Data Be Used for Discrimination?—◆Borko D. Jovanovic, Northwestern University; Angela Fought, Northwestern University; Mary Kwasny, Northwestern University

30 Statistical Methods for Selecting the Optimal Coding Framework in Qualitative Research: An Example of Self-Regulated Learning Theory in Classroom Research—◆I-Pei Tung, McGill University; Hsiu-Ting Yu, McGill University

31 Visual Data Mining Used to Assess the Role of Individual Kernel Moisture Content on Milling Quality—◆Andy Mauromoustakos, University of Arkansas; Rusty Bautista, University of Arkansas; Terry Siebenmorgen, University of Arkansas

32 Finding the Optimal Cut Points of Continuous Biomarker Values: A Case Study—◆E Lin, MD Anderson Cancer Center; Lianchun Xiao, MD Anderson Cancer Center; Ahmed Kaseb, MD Anderson Cancer Center; Manal Hassan, MD Anderson Cancer Center; Jeffrey S. Morris, MD Anderson Cancer Center

426 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: International Chinese Statistical Association—Contributed

International Chinese Statistical Association

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

33 Estimation of Mean Vector Based on Stein Estimator—◆Tianyuan Tang, The University of Hong Kong

34 Detecting Differentially Expressed Genes in Microarray Data by Split-and-Recombine—◆Dongseok Choi, Oregon Health & Science University; Zhixin Kang, The University of North Carolina at Pembroke; George Tiao, The University of Chicago

35 Tolerance Intervals for Unbalanced Random Two-Fold Nested Models—◆Tsai-Yu Lin, Feng-Chia University

36 Depression, Fracture Risk, and Bone Loss: A Meta-Analysis of Cohort Studies—◆Qing Wu, Mayo Clinic; Jianing Liu, Arizona State University; Juan F. Gallegos-Orozco, Mayo Clinic; Joseph G. Hentz, Mayo Clinic

427 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Institute of Mathematical Statistics—Contributed

IMS

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

37 Empirical Likelihood Inference for Diffusion Processes with Jumps—◆Zhengyan Lin, Zhejiang University

38 Random Point Impact Model for Functional Logistic Regression—◆Wei Xiong, Columbia University

39 Using Historical Data for a Transitional Decision of Single-Arm Phase II Clinical Trials—◆Zunqiu Chen, Oregon Health & Science University; Yiyi Chen, Oregon Health & Science University; Motomi Mori, Oregon Health & Science University

40 Testing for Monotonic Changes in Multivariate Gene Expression Distributions—◆Heng Wang, Iowa State University; Dan Nettleton, Iowa State University

41 Testing for Differences in Concentration Parameters Among Several Populations of Angular Variables—◆Curtis Miller, The University of Kansas; Mary Christman, University of Florida

42 Asymptotic Properties of Parameter Estimation in Ordinary Differential Equations by Generalized Profiling Approach—◆Peisi Yan, Yale University; Harrison Huibin Zhou, Yale University

43 High-Dimensional Inference and Applications to Climate Projections—◆Ian Wong, Stanford University; Bala Rajaratnam, Stanford University; Claudia Tebaldi, The University of British Columbia

44 Causal Inference in Observational Studies with Missing Data: A Bayesian Nonparametric Approach—Jennifer Hill, New York University; ◆Jose Zubizarreta, The Wharton School, University of Pennsylvania

45 Inference on Discretely Observed Linear Birth-Death-Immigration Processes—◆Charles R. Doss, University of Washington; Vladimir Minin, University of Washington; Ian Holmes, University of California, Berkeley; Marc Suchard, University of California, Los Angeles

46 Accurate Approximations for the Distribution of Tests of Symmetry—◆John E. Kolassa, Rutgers University

428 CC-Exhibit Hall A (West)

Contributed Oral Poster Presentations: Section on Statistics and the Environment—Contributed

Section on Statistics and the Environment

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

47 Product-Sum Modeling for Space-Time Analysis: An Environmental Application—◆Zhen Jiang, University of Pittsburgh; Richard Bilonick, University of Pittsburgh

48 A Regression Tree Application on Soil and Road Dust Pollution—◆Betül Kan, Anadolu University; Berna Yazici, Anadolu University; Semra Malkoç, Anadolu University; Metin Altan, Anadolu University; Savas Koparal, Anadolu University

49 Quality Control for Meteorological Data Collected by the University of South Alabama Mesonet Stations—◆Madhuri S. Mulekar, University of South Alabama; Sytske Kimball, University of South Alabama

50 Binary Markov Random Fields with Absorbing States—◆Nick Larson, Iowa State University; Amy Hoeksema, Iowa State University; Karl Pazdernik, Iowa State University; Mark Kaiser, Iowa State University

51 Application of Partial Least Squares (PLS) Regression to Determine—◆Maliha S. Nash, U.S. Environmental Protection Agency; Ricardo D. Lopez, U.S. Environmental Protection Agency

52 Graphical Models for Spatial Data: Interpretations and Estimation—◆Alix I. Gitelman, Oregon State University; Kathryn Mary Irvine, Montana State University; Xuan Che, Oregon State University

53 R Package MARSS: Ecological Applications of Multivariate State Space Models—◆Kellie Wills, University of Washington

54 San Francisco Bay Fish Abundance and Global Scale Climate Shifts—◆Teresa Anne Jacobson, University of California, Santa Cruz

55 Methods in Analyzing Missing Data in Monitoring Populations—◆Michael Soma, U.S. Geological Survey; Doug Johnson, U.S. Geological Survey

56 Using GAM_K to Detect Clustering in MI Wood Products Companies—◆Juan Du, Kansas State University

57 Wavelet-Based Functional Linear Mixed Models for Panel Study Data—◆Elizabeth J. Malloy, American University; Jeffrey S. Morris, MD Anderson Cancer Center; Sara D. Adar, University of Michigan School of Public Health; Helen Suh, Harvard School of Public Health; Dianne R. Gold, Harvard School of Public Health; Brent A. Coull, Harvard School of Public Health

58 Spatial Analysis of Soil in Impaired Watershed Areas—◆Bonnie Berneice Terry, Baylor University; Jane L. Harvill, Baylor University

59 A Time-Series Algorithm to Detect Avian Nesting Behavior—◆Emily Sheldon, Virginia Commonwealth University; Viswanathan Ramakrishnan, Virginia Commonwealth University; Kevin Caillouet, Virginia Commonwealth University; Leroy Thacker, Virginia Commonwealth University

60 Developing Models for the Spatial Distribution of Halibut in the Gulf of Alaska—◆Daniel C. Fortin, Iowa State University; Petrutza Caragea, Iowa State University

61 Effects of Chemical Mixture Exposure on Hormones—◆Stephanie Michelle Pearson, Virginia Commonwealth University; Roy Sabo, Virginia Commonwealth University

Invited Session 4:00 p.m.–5:50 p.m.

429 CC-Ballroom AB (West)

Deming Lecture—Invited

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association, Deming Lectureship Committee

Organizer(s): A. Blanton Godfrey, North Carolina State University
Chair(s): A. Blanton Godfrey, North Carolina State University

4:05 p.m. Better: Dr. Deming Consults on Quality for Sir William Osler—◆Brent C. James, Institute for Health Care Delivery Research

5:30 p.m. Floor Discussion

Invited Session 8:00 p.m.–9:30 p.m.

430 CC-Ballroom AB (West)

ASA Presidential Address and Awards – Invited

ASA, ENAR, IMS, SSC, WNAR, ICSA, IISA

Organizer(s): Sastry Pantula, North Carolina State University
Chair(s): Sally Morton, RTI International

8:00 p.m. Presentation of Awards—◆Sally Morton, RTI International

8:30 p.m. Statistics: A Key to Innovation in a Data-Centric World—◆Sastry Pantula, North Carolina State University

9:00 p.m. Presentation of Founders Awards and New ASA Fellows —◆Sally Morton, RTI International

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

WEDNESDAY, AUGUST 4

Committee/Business Meetings & Other Activities

7:00 a.m.–8:30 a.m. CC-107 (West)
Committee on Outreach Education Business Meeting
Chair(s): Wendy Martinez, U.S. Department of Defense

7:00 a.m.–8:30 a.m. FW-Princess Louisa Suite
Brigham Young University Friends and Alumni Open House Breakfast
Organizer(s): Del Scott, Brigham Young University

7:00 a.m.–8:30 a.m. CC-4 (East)
Committee on Career Development Business Meeting
Chair(s): Sarah H. Kogut, Celgene Corporation

7:00 a.m.–8:30 a.m. FW-Douglas Boardroom
Committee on International Relations in Statistics Business Meeting
Chair(s): Mithat Gonen, Memorial Sloan-Kettering Cancer Center

7:00 a.m.–8:30 a.m. CC-5 (East)
Journal on Statistical Analysis and Data Mining Business Meeting
Organizer(s): Joseph Verducci, The Ohio State University

7:00 a.m.–8:30 a.m. CC-106 (West)
Committee of Representatives to AAAS Business and Discussion Meeting
Chair(s): Michael Cohen, NORC

7:00 a.m.–8:30 a.m. CC-108 (West)
Ad Hoc Statistical Practice Conference Planning Committee Planning Meeting
Chair(s): Maura Stokes, SAS Institute

7:00 a.m.–8:30 a.m. FW-Burrard Suite
Cavell Brownie Scholars JSM Mentoring Program - Scholars (closed)
Chair(s): Marcia Gumpertz, North Carolina State University

7:00 a.m.–8:30 a.m. FW-Terrace Room
Cavell Brownie Scholars JSM Mentoring Program - Mentors (closed)
Chair(s): Marcia Gumpertz, North Carolina State University

7:00 a.m.–8:30 a.m. CC-113 (West)
Scientific and Public Affairs Advisory Committee Meeting
Chair(s): David Marker, Westat

7:00 a.m.–6:00 p.m. CC-103/104 (West)
Speaker Management Room

7:30 a.m.–9:00 a.m. CC-105 (West)
Committee on Federally Funded Research Business Meeting
Chair(s): Katherine Bennett Ensor, Rice University

7:30 a.m.–4:30 p.m. CC-West Registration
ASA Membership/Special Assistance/Press Desk

7:30 a.m.–4:30 p.m. CC-West Registration
JSM Main Registration

8:00 a.m.–2:00 p.m. CC-Exhibit Hall A (West)
Exhibitor Lounge

8:00 a.m.–2:30 p.m. CC-Exhibit Hall B (West)
Career Placement Service

8:00 a.m.–5:15 p.m. FW-Cheakamus Room
Meeting Within a Meeting (MWM) Statistics Workshop for Math and Science Teachers
Chair(s): Katherine Halvorsen, Smith College

8:30 a.m.–10:30 a.m. CC-7 (East)
Sequential Analysis Journal's Editorial Board Meeting Breakfast Meeting (closed)
Organizer(s): Nitis Mukhopadhyay, University of Connecticut-Storrs

9:00 a.m.–11:00 a.m. FW-Sechelt Room
Council of Sections Publications Editors and Webmasters Meeting
Chair(s): Pam Arroway, North Carolina State University

9:00 a.m.–2:00 p.m. CC-Exhibit Hall A (West)
EXPO 2010

9:00 a.m.–2:00 p.m. CC-Exhibit Hall A (West)
American Statistical Association Booth #401

9:00 a.m.–5:00 p.m. CC-West Registration
ASA Marketplace

11:30 a.m.–2:00 p.m. CC-113 (West)
Committee on Meetings (closed)
Chair(s): Xiao-Li Meng, Harvard University

12:00 p.m.–2:00 p.m. CC-107 (West)
2011 ENAR Spring Meeting Planning Committee
Organizer(s): Kathy Hoskins, ENAR; Sharon-Lise Normand, ENAR

12:30 p.m.–2:00 p.m. CC-106 (West)
NISS/ASA Writing Workshop Lunch
Chair(s): Keith Crank, ASA

12:30 p.m.–2:00 p.m. CC-105 (West)
Noether Luncheon
Chair(s): Carlos Morales, Wellington Management Company

1:00 p.m.–6:30 p.m. CC-West Registration
JSM Luggage Storage

2:00 p.m.–4:30 p.m. CC-108 (West)
SAMHDA Demos: Making Data Work for You
Organizer(s): JoAnne McFarland O'Rourke, University of Michigan

2:00 p.m.–9:00 p.m. CC-Exhibit Hall A (West)
Exhibitor Move Out

4:00 p.m.–6:00 p.m. CC-106 (West)
International Conference on Establishment Surveys IV Organizing Committee Meeting
Chair(s): Frank Potter, Mathematica Policy Research, Inc.

6:00 p.m.–7:00 p.m. CC-116 (West)
International Chinese Statistical Association (ICSA) Annual Members Meeting
Organizer(s): Ming-Hui Chen, University of Connecticut

6:00 p.m.–7:30 p.m. CC-210 (West)
Section on Statistical Education Business Meeting
Chair(s): Lori Thombs, University of Missouri

6:00 p.m.–7:30 p.m. FW-Royal Suite
2010 JSM Program Committee/ACCE/Local Area Committee Appreciation Reception (by invitation only)

6:00 p.m.–8:00 p.m. CC-111/112 (West)
Section on Survey Research Methods Business Meeting
Chair(s): Howard Hogan, U.S. Census Bureau

7:00 p.m.–8:30 p.m. FW-Princess Louisa Suite
NCCAM - Statisticians Working on Complementary and Alternative Medicine (CAM) Studies
Organizer(s): Laura Lee Johnson, National Institutes of Health

Continuing Education (Fee Events)

CE_23T
Meta-Analysis: Concepts and Applications
8:00 a.m.–9:45 a.m. CC-8 (East)
Instructor(s): Michael Borenstein, Biostat, Inc.; Hannah Rothstein,

CE_24T
Introducing Compass: Software for the Design of Adaptive Dose-Finding Trials
8:00 a.m.–9:45 a.m. CC-11(East)
Instructor(s): Yannis Jemiai, Cytel Inc.; Nitin R. Patel, Cytel Inc.

CE_25T
Introduction to Structural Equation Modeling Using the CALIS Procedure in SAS/STAT Software
8:00 a.m.–9:45 a.m. CC-2&3 (East)
Instructor(s): Yiu-Fai Yung, SAS Institute

CE_26T
Introduction to CART: Data Mining with Decision Trees
8:00 a.m.–9:45 a.m. CC-1 (East)
Instructor(s): Mikhail Golovnya, Salford Systems

CE_27T
Power Analysis: A Simple and Effective Approach
10:00 a.m.–11:45 a.m. CC-8 (East)
Instructor(s): Michael Borenstein, Biostat, Inc.; Hannah Rothstein,

CE_28T
Survey Data Analysis with Stata
10:00 a.m.–11:45 a.m. CC-11(East)
Instructor(s): Jeffrey Pitblado, StataCorp LP

CE_29T
Modeling Loss Distributions Using SAS/ETS Software
10:00 a.m.–11:45 a.m. CC-2&3 (East)
Instructor(s): Mahesh Joshi, SAS Institute

CE_30T
Introduction to MARS: Predictive Modeling with Nonlinear Automated Regression Tools
10:00 a.m.–11:45 a.m. CC-1 (East)
Instructor(s): Mikhail Golovnya, Salford Systems

CE_31T
Sample Size Re-estimation in Phase III Time-to-Event Clinical Trials with EastAdapt Software
1:00 p.m.–2:45 p.m. CC-8 (East)
Instructor(s): Cyrus R. Mehta, Cytel Inc.

CE_32T
Multilevel and Mixed Models in Stata
1:00 p.m.–2:45 p.m. CC-11(East)
Instructor(s): Roberto G. Gutierrez, StataCorp LP

CE_33T
An Introduction to SAS IML Studio for SAS/STAT Users
1:00 p.m.–2:45 p.m. CC-2&3 (East)
Instructor(s): Rick Wicklin, SAS Institute

CE_34T
Advances in Data Mining: Jerome Friedman's TreeNet/MART and Leo Breiman's Random Forests
1:00 p.m.–2:45 p.m. CC-1 (East)
Instructor(s): Mikhail Golovnya, Salford Systems

CE_35T

Statistical Sensitivity and Graphical Methods for Correlated Data Analysis

3:00 p.m.–4:45 p.m. CC-11(East)

Instructor(s): Edward C. Chao, Data Numerica Institute, Inc.

A.M. Roundtable Discussions 7:00 a.m.–8:15 a.m.

431 CC-Ballroom D (West)

Section for Statistical Programmers and Analysts (fee event)

Section for Statistical Programmers and Analysts

Organizer(s): Chengying (Nancy) Wu, sanofi-aventis

WL01 Multiplicity Adjustment in Clinical Trials—◆Annpey Pong, Merck & Co., Inc.

432 CC-Ballroom D (West)

Section on Government Statistics (fee event)

Section on Government Statistics

Organizer(s): Iris Shimizu, National Center for Health Statistics

WL02 Nonresponse Adjustment Using a Response Propensity Model—◆Donsig Jang, Mathematica Policy Research, Inc.

433 CC-Ballroom D (West)

Section on Health Policy Statistics (fee event)

Health Policy Statistics Section

Organizer(s): Recai Yucel, State University of New York at Albany

WL03 Reliability and Misclassification in Physician Profiling—◆John L. Adams, RAND Corporation

434 CC-Ballroom D (West)

Section on Statistical Computing (fee event)

Section on Statistical Computing, Section for Statistical Programmers and Analysts

Organizer(s): David J. Poole, AT&T Labs

WL04 Effective Collaboration of Statistical Programmers and Clinical Statisticians—◆Vipin Arora, Takeda Global Research & Development Center, Inc.

435 CC-Ballroom D (West)

Section on Statistical Consulting (fee event)

Section on Statistical Consulting

Organizer(s): Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center

WL05 Investigator Evaluation and the Collaborative/Consulting Experience—◆Rhonda VanDyke, Cincinnati Children's Hospital Medical Center

436 CC-Ballroom D (West)

Section on Statistical Education (fee event)

Section on Statistical Education

Organizer(s): Daniel Theodore Kaplan, Macalester College

WL06 The History of Statistics: Teaching the Ancient Background of Modern Methods—◆Kirk Anderson, Grand Valley State University

437 CC-Ballroom D (West)

Section on Statistics in Epidemiology (fee event)

Section on Statistics in Epidemiology

Organizer(s): Paul S. Albert, Eunice Kennedy Shriver National Institute of Child Health and Human Development

WL07 Gerontologic Biostatistics: Application and Resources—◆Heather Gwynn Allore, Yale University

438 CC-Ballroom D (West)

Section on Teaching of Statistics in the Health Sciences (fee event)

Section on Teaching of Statistics in the Health Sciences

Organizer(s): Nicole Carlson, University of Colorado, Denver

WL08 Promoting Statistical Literacy Among Clinical and Laboratory Researchers—◆Jeri E.F. Harwood, University of Colorado, Denver; Samantha MaWhinney, Colorado School of Public Health, University of Colorado Denver; John Kittelson, Colorado School of Public Health, University of Colorado Denver

Special Presentation 8:30 a.m.–10:20 a.m.

439 CC-Ballroom C (West)

Introductory Overview Lecture: Past, Present, and Future of Statistical Network Analysis and Computer Vision—Other

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association
Organizer(s): Ji Zhu, University of Michigan
Chair(s): Ji Zhu, University of Michigan

8:35 a.m. Models for Networks—◆David Banks, Duke University
9:20 a.m. Statistical Modeling of Visual Patterns—◆Ying Nian Wu, University of California, Los Angeles
10:05 a.m. Floor Discussion

Invited Sessions 8:30 a.m.–10:20 a.m.

440 CC-109 (West)

■ ✪ Super High-Dimensional Statistical Inference—Invited

General Methodology, IMS, Section on Physical and Engineering Sciences
Organizer(s): Yazhen Wang, University of Wisconsin-Madison
Chair(s): Harrison Huibin Zhou, Yale University

8:35 a.m. On Estimation of Large Covariance Matrices—◆Tony Cai, University of Pennsylvania
9:05 a.m. Sure Screening and Refitted Crossvalidation for Ultra High-Dimensional Statistical Inferences—◆Jianqing Fan, Princeton University; Shaojun Guo, Chinese Academy of Sciences; Ning Hao, Princeton University
9:35 a.m. Statistical Analysis in Quantum Computation and Quantum Information Theory—◆Yazhen Wang, University of Wisconsin-Madison
10:05 a.m. Floor Discussion

441 CC-201 (West)

■ ✪ Survival Analysis: Alternatives to the Hazard Ratio as a Summary Measure—Invited

WNAR, Biometrics Section, IMS, Section for Statistical Programmers and Analysts, Section on Nonparametric Statistics
Organizer(s): Kyle D. Rudser, University of Minnesota
Chair(s): Sebastien Haneuse, Group Health Research Institute

8:35 a.m. Variable Selection in Censored Quantile Regression—◆Huixia Wang, North Carolina State University; Jianhui Zhou, University of Virginia
8:55 a.m. Semiparametric Estimator for Differences in Restricted Mean Lifetimes in Observational Studies—◆Min Zhang, University of Michigan; Douglas E. Schaubel, University of Michigan
9:15 a.m. Matching Methods for Estimating the Effect on Survival of a Time-Dependent Treatment—◆Douglas E. Schaubel, University of Michigan; Yun Li, University of Michigan
9:35 a.m. Distribution-Free Inference for Arbitrary Functionals of Survival—◆Kyle D. Rudser, University of Minnesota; Michael LeBlanc, Fred Hutchinson Cancer Research Center; Scott Emerson, University of Washington
9:55 a.m. Disc: Frank E. Harrell Jr., Vanderbilt University School of Medicine
10:15 a.m. Floor Discussion

442 CC-211 (West)

✪ Room at the Health Care Policy Table: A Case for the Inclusion of Statisticians in These Data-Centric Decisions—Invited

Health Policy Statistics Section, Social Statistics Section
Organizer(s): Brenda Crowe, Eli Lilly and Company; Matt Rotelli, Eli Lilly and Company
Chair(s): Brenda Crowe, Eli Lilly and Company

8:35 a.m. Electronic Medical Data, Public Health Decisions, and Statisticians: An FDA Perspective—◆Robert T. O'Neill, FDA
9:05 a.m. The Role of Statistics and Opportunities for Statisticians in Active Drug Safety Surveillance—◆Patrick Ryan, GlaxoSmithKline
9:35 a.m. Disc: Ingram Olkin, Stanford University
10:00 a.m. Floor Discussion

443 CC-10 (East)

■ ✪ Recent Developments in Functional Data Analysis—Invited

Section on Physical and Engineering Sciences, IMS, Section on Quality and Productivity
Organizer(s): Surajit Ray, Boston University
Chair(s): Eric Kolaczyk, Boston University

8:35 a.m. Hierarchical Bayesian Models for Predicting Spatially Correlated Curves—◆Bani K. Mallick, Texas A&M University

9:00 a.m. Recent Advances on Structural Tests for Regression Models with Functional Covariate—◆Laurent Delsol, Université d'Orléans

9:25 a.m. Classification of Functional Data: Unsupervised Curve Clustering When Curves Are Misaligned—◆Laura M. Sangalli, Politecnico di Milano; Piercesare Secchi, MOX - Dipartimento di Matematica, Politecnico di Milano; Simone Vantini, MOX - Dipartimento di Matematica, Politecnico di Milano; Valeria Vitelli, MOX - Dipartimento di Matematica, Politecnico di Milano

9:50 a.m. Disc: J. S. Marron, The University of North Carolina at Chapel Hill

10:10 a.m. Floor Discussion

444 CC-220 (West)

■ Handling of Missing Data in Clinical Trials: Findings of a National Research Council Study—Invited

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR, Section for Statistical Programmers and Analysts
Organizer(s): Michael Lee Cohen, Committee on National Statistics
Chair(s): Michael Lee Cohen, Committee on National Statistics

8:35 a.m. Handling of Missing Data in Clinical Trials: Findings of a National Research Council Study—◆Roderick Joseph Little, University of Michigan

9:00 a.m. Choice of Estimand, Trial Design, and Trial Conduct—◆James D. Neaton, University of Minnesota

9:25 a.m. Analysis of Trial Data with Accompanying Sensitivity Analysis—◆Daniel O. Scharfstein, Johns Hopkins Bloomberg School of Public Health

9:50 a.m. Disc: Robert T. O'Neill, FDA

10:10 a.m. Floor Discussion

445 CC-212 (West)

■ Statistics and Development of Personalized Medicines—Invited

Section on Statistical Consulting, Committee on Career Development
Organizer(s): Ruixiao Lu, Novartis Vaccines and Diagnostics
Chair(s): Ruixiao Lu, Novartis Vaccines and Diagnostics

8:35 a.m. Exon-Based Microarrays and Their Applications in Personalized Health Care—◆Wei-min Liu, Roche Molecular Systems, Inc.; Yu Chuan Tai, Roche Molecular Systems, Inc.; Yan Li, Roche Molecular Systems, Inc.

8:55 a.m. A Bayesian Approach for Assessing Chromosomal Aberrations in Glioblasma and Gastric Cancer—◆Jingjing Ye, Pfizer Inc.; Qiuyan Xu, Travelers Insurance

9:15 a.m. Accuracy of Biomarker Testing and Its Impact on Targeted Therapy Validation—◆Meijuan Li, FDA; Estelle Russek-Cohen, FDA; Rong Tang, FDA

9:35 a.m. The Value of Personalized, Predictive Risk-Assessment Tools for the Prevention of Chronic Diseases—◆Edward J. Moler, Tethys Bioscience, Inc.; Louis P. Garrison, University of Washington; Janice Kolberg, Tethys Bioscience, Inc.; Harald Rinde, BioBridge Strategies Switzerland; Sean D. Sullivan, University of Washington

9:55 a.m. Evaluating Diagnostics Hypotheses in Proof-of-Concept Clinical Trials—◆Jane Fridlyand, Genentech

10:15 a.m. Floor Discussion

446 CC-13 (East)

■ Graphics Packages for R: Recent Advances and Future Directions—Invited

Section on Statistical Graphics, Committee on Applied Statisticians, Section for Statistical Programmers and Analysts, Section on Government Statistics, Section on Statistical Computing
Organizer(s): Daniel B. Carr, George Mason University
Chair(s): Daniel B. Carr, George Mason University

8:35 a.m. ggplot2: A Layered Grammar of Graphics—◆Hadley Wickham, Rice University

9:00 a.m. iPlots eXtreme: Next Generation of Interactive Graphics for Analysis of Large Data—◆Simon Urbanek, AT&T Labs - Research

9:25 a.m. An Interactive Graphics Framework for R—◆Michael Lawrence, Genentech; Deepayan Sarkar, Indian Statistical Institute; Hadley Wickham, Rice University

9:50 a.m. Disc: Leland Wilkinson, SYSTAT

10:10 a.m. Floor Discussion

447 CC-301 (West)

Plans for Coverage Measurement of the Next Censuses in the United States, Canada, and the United Kingdom—Invited

Section on Survey Research Methods, *CHANCE*, International Chinese Statistical Association, Section on Government Statistics, Social Statistics Section

Organizer(s): Vincent Thomas Mule Jr., U.S. Census Bureau
Chair(s): Howard Hogan, U.S. Census Bureau

8:35 a.m. U.S. Census Coverage Measurement Demographic Analysis Plans—◆Jason Devine, U.S. Census Bureau

9:00 a.m. Census-Coverage Studies in Canada: A History with Emphasis on the 2011 Census—◆David Dolson, Statistics Canada

9:25 a.m. Coverage Assessment in the 2011 UK Census—◆Owen Abbott, Office for National Statistics UK; James Brown, Institute of Education

9:50 a.m. U.S. Census Coverage Measurement Survey Plans—◆Vincent Thomas Mule Jr., U.S. Census Bureau

10:15 a.m. Floor Discussion

448 CC-218/219 (West)

Memorial Session for E. L. Lehmann—Invited

Memorial, IMS

Organizer(s): Peter Bickel, University of California, Berkeley
Chair(s): Peter Bickel, University of California, Berkeley

8:35 a.m. Erich Lehmann's Multiple Testing Contributions and Later Developments—◆Juliet Popper Shaffer, University of California, Berkeley

9:05 a.m. Reminiscing About Erich Lehmann's Legacy: His Work and His Mentorship—◆Javier Rojo, Rice University

9:35 a.m. In Praise of Theory—◆Persi Diaconis, Stanford University

10:05 a.m. Floor Discussion

Invited Panels 8:30 a.m.–10:20 a.m.

449 CC-224 (West)

Beyond the Introductory Course: Strategies for a Second Course in Statistics—Invited

Section on Statistical Education, Committee on Career Development

Organizer(s): Tisha L. Hooks, Winona State University
Chair(s): Tisha L. Hooks, Winona State University

Panelists: ◆Shonda Kuiper, Grinnell College
◆Brad Hartlaub, Kenyon College
◆Julie Legler, St. Olaf College
◆Robin Lock, St. Lawrence University
◆Nathan Tintle, Hope College

10:15 a.m. Floor Discussion

450 CC-118 (West)

■ ✪ Statistical Engineering: An Idea Whose Time Has Come? A Discussion in Honor of Gerald Hahn's 80th Birthday—Invited

Section on Quality and Productivity, International Chinese Statistical Association

Organizer(s): Martha M. Gardner, GE Global Research
Chair(s): Martha M. Gardner, GE Global Research

Panelists: ◆Roger Hoerl, GE Global Research
◆Ronald Snee, Snee Associates, LLC
◆Bill Parr, China Europe International Business School
◆Geoffrey Vining, Virginia Tech

10:15 a.m. Floor Discussion

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

451 CC-302/303 (West)

Causal Inference Using Structural Nested Models: Recent Developments—Topic-Contributed

Biometrics Section

Organizer(s): Marshall M. Joffe, University of Pennsylvania
Chair(s): Wei (Peter) Yang, University of Pennsylvania

8:35 a.m. Estimating Direct Effects on a Dichotomous Outcome Using Logistic Structural Direct Effect Models—◆Stijn Vansteelandt, Ghent University

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

8:55 a.m. Controlling-the-Future: The Optimal Estimator and Identification Conditions—◆Mingyuan Zhang, University of Pennsylvania; Marshall M. Joffe, University of Pennsylvania

9:15 a.m. G-Estimation of Structural Nested Model Parameters for Optimal Dynamic Treatment Regimes: Looking for Problems—◆Erica E.M. Moodie, McGill University

9:35 a.m. Optimal G-Estimation Mediation Analyses Under Departure from Sequential Ignorability—◆Rongmei Zhang, University of Pennsylvania; Marshall M. Joffe, University of Pennsylvania; Thomas R. Ten Have, University of Pennsylvania School of Medicine

9:55 a.m. Causal Effect Estimation Using Instrumental Variable Approaches for Log-Linear Structural Nested Mean Models in the Presence of Unmeasured Confounding—◆Chia-Hao Wang, University of Pennsylvania School of Medicine; Marshall M. Joffe, University of Pennsylvania; Thomas R. Ten Have, University of Pennsylvania School of Medicine

10:15 a.m. Floor Discussion

452 CC-217 (West)

■ Recent Research in Statistical Genetics in Asia Pacific Rim—Topic-Contributed

Biometrics Section

Organizer(s): Gang Zheng, National Institutes of Health
Chair(s): Gang Zheng, National Institutes of Health

8:35 a.m. A Genomewide Association Study for Determinants of Hyperlipidemia in Korean Population via Beyond-Single-SNP Analysis—◆Taesung Park, Seoul National University; Eunjin Lee, Seoul National University; Kyunga Kim, Seoul National University; Seungyeoun Lee, Sejong University

8:55 a.m. Model Selection and Hypothesis Testing for Case-Control Genetic Association Studies—◆Jinfeng Xu, National University of Singapore; Gang Zheng, National Institutes of Health; Ao Yuan, Howard University

9:15 a.m. Distribution of the Number of False Discoveries in Large-Scale Family-Based Association Testing with Applications to SAPPHIRe Data—◆I-Shou Chang, National Health Research Institutes, Taiwan

9:35 a.m. Calculation of MAX Test *p*-Value with Geometric Characterization of 2x3 Table Tests—◆Ryo Yamada, Kyoto University

9:55 a.m. Floor Discussion

453 CC-207 (West)

✪ New and Modified Content in the American Community Survey—Topic-Contributed

Social Statistics Section, Section on Government Statistics

Organizer(s): Joanna Marie Turner, University of Minnesota, SHADAC
Chair(s): Trudi Renwick, U.S. Census Bureau

8:35 a.m. Health Insurance Coverage Estimates from the American Community Survey—◆Joanna Marie Turner, University of Minnesota, SHADAC; Brett O'Hara, U.S. Census Bureau

8:55 a.m. Evaluation of the Marital Events Items on the ACS—◆Diana B. Elliott, U.S. Census Bureau; Tavia Simmons, U.S. Census Bureau; Jamie M. Lewis, The University of North Carolina at Chapel Hill

9:15 a.m. Evaluation of New Content on the 2008 American Community Survey: Service-Connected Disability Status and Ratings—◆Kelly Ann Holder, U.S. Census Bureau

9:35 a.m. The Measurement of Disability in the 2008 American Community Survey—◆Matthew Brault, U.S. Census Bureau

9:55 a.m. Disc: David Oellerich, Office of the Assistant Secretary for Planning and Evaluation

10:15 a.m. Floor Discussion

454 CC-222 (West)

■ Evidence Synthesis in Drug Development—Topic-Contributed

Biopharmaceutical Section

Organizer(s): David Ohlssen, Novartis Pharmaceuticals Corporation
Chair(s): David Ohlssen, Novartis Pharmaceuticals Corporation

8:35 a.m. Efficient Early Phase Designs in Oncology Based on Evidence Synthesis—◆Jyotirmoy Dey, Novartis Pharmaceuticals Corporation; Wentao Feng, Novartis Pharmaceuticals Corporation

8:55 a.m. Maximum Likelihood–Based Inference of Metadata via EM Algorithm—◆Ming-Hui Chen, University of Connecticut; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Arvind K. Shah, Merck Research Laboratories; Jianxin Lin, Merck Research Laboratories

9:15 a.m. An Overview of Evidence Synthesis in Drug Development—David Ohlssen, Novartis Pharmaceuticals Corporation; ◆Beat Neuenschwander, Novartis Pharma AG

9:35 a.m. Disc: Iiya Lipkovich, Eli Lilly and Company

9:55 a.m. Floor Discussion

455 CC-204 (West)

■ Methodological Challenges Encountered in the Analysis of HIV and STD Data at the Centers for Disease Control and Prevention—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section
Organizer(s): Felicia Hardnett, CDC
Chair(s): Felicia Hardnett, CDC

8:35 a.m. Individually Randomized Group Treatment (IRGT) Trials in HIV/AIDS: How Often Is the Intraclass Correlation Ignored in Design and Analysis?—◆Sherri L. Pals, CDC; Ryan E. Wiegand, CDC; David Murray, The Ohio State University

8:55 a.m. Group-Randomized Trials (GRT) in HIV/AIDS Research: How Often Is the Intraclass Correlation Ignored in Design and Analysis?—◆Ryan E. Wiegand, CDC; Sherri L. Pals, CDC; David Murray, The Ohio State University

9:15 a.m. A Comparison of Two Methods for Analyzing Data from a Methodological Study of Paper-and-Pencil vs. Web-Based Survey Administration: Sample Survey and Group Randomized Trial—◆Maxine M. Denniston, CDC; Danice K. Eaton, CDC; Sherri L. Pals, CDC

9:35 a.m. Meta-Analysis of Survey Data to Estimate the Size of the Population of Men Who Have Sex with Men for Calculating HIV Rates—◆Christopher H. Johnson, CDC; David Purcell, CDC; Amy Lansky, CDC; Joseph Prejean, CDC; Paul Denning, CDC; Nicole Crepaz, CDC; Zaneta Gaul, CDC; Renee Stein, CDC; Zaneta Gaul, CDC

9:55 a.m. Disc: Craig B. Borkowf, CDC

10:15 a.m. Floor Discussion

456 CC-111/112 (West)

■ Sampling, Estimation, and Inference for Natural Resource Problems—Topic-Contributed

Section on Statistics and the Environment
Organizer(s): Ronald E. McRoberts, U.S. Forest Service
Chair(s): Lance Wallller, Emory University

8:35 a.m. Investigating Trawl Gear Modifications to Reduce Mortality of Bering Sea Crab Fisheries—◆Loveday L. Conquest, University of Washington; Carwyn Hammond, National Marine Fisheries Service; Craig Rose, National Marine Fisheries Service

8:55 a.m. Model-Based Sampling Design on Stream Networks—◆Dale Zimmerman, The University of Iowa

9:15 a.m. Stratified Rotating Panel Surveys: Estimating the Total Number of Bald Eagle Nesting Territories and Productivity in Florida—◆Mary Christman, University of Florida

9:35 a.m. A Horvitz-Thompson–Type Estimator of Species Richness—◆Steen Magnussen, Canadian Forest Service

9:55 a.m. Resampling Variance Estimators for the k-Nearest Neighbors Technique—◆Ronald E. McRoberts, U.S. Forest Service

10:15 a.m. Floor Discussion

457 CC-18 (East)

Estimation and Testing in Generalized Families of Distributions—Topic-Contributed

Section on Statistical Computing
Organizer(s): Robert Arthur Ravenscroft King, University of Newcastle; Paul Jacobus van Staden, University of Pretoria
Chair(s): Robert Arthur Ravenscroft King, University of Newcastle

8:35 a.m. A Parameterization of the Generalized Lambda Distribution with Closed-Form Expressions for Method of L-Moment Estimation—◆Paul Jacobus van Staden, University of Pretoria

8:55 a.m. Tests of Goodness-of-Fit Based on Smooth Alternatives to the Quantile Function—◆Olivier Thas, Ghent University; John C.W. Rayner, University of Newcastle

9:15 a.m. A New Subfamily of the Mirror-Exponential Distribution—◆Guillermina Jasso, New York University

9:35 a.m. Modeling Skewness and Kurtosis with the S-EGSH—◆David C. Vaughan, Wilfrid Laurier University

9:55 a.m. Versatile Regression: Median Regression with Errors That Follow the Generalized Lambda Distribution: A Comparison of Estimation Methods—◆Benjamin Dean, University of Newcastle; Robert Arthur Ravenscroft King, University of Newcastle

10:15 a.m. Floor Discussion

458 CC-223 (West)

■ ✪ Recent Advances in Survival and Risk Analysis—Topic-Contributed

ENAR, Biometrics Section, Committee on Applied Statisticians, Section on Risk Analysis
Organizer(s): Xin He, University of Maryland
Chair(s): David Oakes, University of Rochester

8:35 a.m. Nonparametric Estimation of Time Trend for Recurrent Events Data—◆Bo Henry Lindqvist, Norwegian University of Science and Technology

8:55 a.m. Assessing the Goodness of Fit of Risk Prediction Rules in a Clustered Data Setting—◆Bernard Rosner, Harvard Medical School; Weiliang Qiu, Harvard Medical School; MeiLing Ting Lee, University of Maryland

9:15 a.m. Cause-Specific Association Measures for Multivariate Competing Risks Data—◆Yu Cheng, University of Pittsburgh; Hao Wang, University of Pittsburgh

9:35 a.m. A Joint Model of Recurrent Events and a Terminal Event with a Nonparametric Covariate Function—◆Zhangsheng Yu, Indiana University School of Medicine; Lei Liu, University of Virginia

9:55 a.m. Variable Selection for Panel Count Data via Nonconcave Penalized Estimating Function—◆Xin He, University of Maryland; Xingwei Tong, Beijing Normal University; Liuquan Sun, Chinese Academy of Sciences; Jianguo Sun, University of Missouri

10:15 a.m. Floor Discussion

459 CC-119 (West)

Recent Development in Mixture Models and Applications—Topic-Contributed

IMS, Section on Quality and Productivity
Organizer(s): Weixin Yao, Kansas State University
Chair(s): Juan Du, Kansas State University

8:35 a.m. Mixture of Regression Models with Varying Mixing Proportions: A Semiparametric Approach—◆Mian Huang, Shanghai University of Finance and Economics; Yao Weixin, Kansas State University

8:55 a.m. Mixtures of Regression with Unknown Symmetric Error Density—◆Weixin Yao, Kansas State University; Shaoli Wang, Shanghai University of Finance and Economics; Chunrong Ai, University of Florida

9:15 a.m. Selection of Consistent Roots to the Likelihood Equation in Finite Mixtures of Location-Scale Distributions—Byungtae Seo, Texas Tech University; ◆Daeyoung Kim, University of Massachusetts, Amherst

9:35 a.m. The Nonparametric Maximum Likelihood Estimation for Gaussian Mixture Innovations of GARCH Model—Taewook Lee, Hankuk University of Foreign Studies; ◆Byungtae Seo, Texas Tech University

9:55 a.m. EM-Test for Finite Mixture Models—◆Jiahua Chen, The University of British Columbia; Pengfei Li, University of Alberta

10:15 a.m. Floor Discussion

460 CC-117 (West)

✪ Shape-Restricted Estimation and Inference—Topic-Contributed

IMS, Section on Nonparametric Statistics
Organizer(s): Bodhisattva Sen, Columbia University
Chair(s): Bodhisattva Sen, Columbia University

8:35 a.m. The Distribution of the Maximal Difference Between Brownian Bridge and Its Concave Majorant—◆Fadoua Balabdaoui, Universite Paris-Dauphine

8:55 a.m. Problems in Shape-Constrained Function Estimation Involving Correlated Errors—◆Mary Meyer, Colorado State University

9:15 a.m. Consistency in Multidivariate Convex Regression—◆Emilio Francisco Seijo, Columbia University; Bodhisattva Sen, Columbia University

9:35 a.m. On the Grenander Estimator at Zero—Fadoua Balabdaoui, Universite Paris-Dauphine; Hanna Jankowski, York University; Marios Pavlides, Frederick University Cyprus; ◆Arseni Seregin, University of Washington; Jon A. Wellner, University of Washington

9:55 a.m. Modeling and Inference with Log-Concave Distributions—◆Guenther Walther, Stanford University

10:15 a.m. Floor Discussion

461 CC-120 (West)

Student Paper Competition: Applied Bayesian Modeling—Topic-Contributed

Section on Bayesian Statistical Science, Section on Statistics and the Environment
Organizer(s): Alyson Wilson, Iowa State University
Chair(s): Tanujit Dey, The College of William & Mary

8:35 a.m. Spatial Regression Using Kernel-Averaged Predictors—◆Matthew Joseph Heaton, Duke University; Alan E. Gelfand, Duke University

8:50 a.m. Semiparametric Bayesian Modeling of Spatio-Survival Data Under Cure Fraction—◆Sandra Milena Hurtado Rua, University of Connecticut; Dipak K. Dey, University of Connecticut

9:05 a.m. Inferring Likelihoods and Climate System Characteristics from Climate Models and Spatio-Temporal Tracer Data—◆K. Sham Bhat, Penn State; Murali Haran, Penn State; Klaus Keller, Penn State; Roman Tonkonojenkov, Penn State

9:20 a.m. The Bayesian Hierarchical Model for Estimating the Size of HIV At-Risk Populations in Bangladesh—◆Le Bao, University of Washington; Adrian E. Raftery, University of Washington; Amala Reddy, UNAIDS Regional Support Team Asia-Pacific

9:35 a.m. Combining Principal Component Analysis with Parameter Line Searches to Construct Well-Designed Proposal Distributions for Metropolis-Hastings MCMC—◆David Andrew Kennedy, The University of Chicago; Vanja Dukic, The University of Chicago; Greg Dwyer, The University of Chicago

9:50 a.m. Disc: Catherine Calder, The Ohio State University

10:05 a.m. Floor Discussion

462 CC-116 (West)

Permutation Methods for Complex Problems—Topic-Contributed

Section on Nonparametric Statistics, General Methodology
Organizer(s): Luigi Salmaso, University of Padova
Chair(s): Frank Konietschke, Department of Medical Statistics

8:35 a.m. Threshold-Free Cluster Enhancement (TFCE): Improving Power and Stability of Cluster Size Inference in Brain Imaging—◆Thomas E. Nichols, University of Warwick

8:55 a.m. Exact Distribution-Free Tests for Ordinal Data: Stochastic Inequalities and Kendall's Tau—◆Karl H. Schlag, Universitat Pompeu Fabra

9:15 a.m. Combination-Based Multivariate Permutation Tests—◆Luigi Salmaso, University of Padova

9:35 a.m. Summarizing Permutation Data—◆Susan Holmes, Stanford University

9:55 a.m. Floor Discussion

463 CC-114/115 (West)

■Analysis of Data with Single or Multiple Events—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Zhezhen Jin, Columbia University
Chair(s): Zhezhen Jin, Columbia University

8:35 a.m. Estimators Based on Data-Driven Generalized Weighted Cramer-von Mises Distances Under Censoring, with Applications to Mixture Models—◆Eric Beutner, Maastricht University

8:55 a.m. Some Censoring Issues Regarding the Reliability of Load-Sharing Systems—◆James Lynch, University of South Carolina; John M. Grego, University of South Carolina; Shuang Li, Fred Hutchinson Cancer Research Center; Jayaram Sethuraman, Florida State University

9:15 a.m. Longitudinal Data Analysis with Event Time as a Covariate—◆Xuewen Lu, University of Calgary; Bin Nan, University of Michigan; Peter Song, University of Michigan; MaryFran Sowers, University of Michigan

9:35 a.m. Analyses of Recurrent Events with Informative Censoring—◆Joan Hu, Simon Fraser University

9:55 a.m. Multiple Decision Functions and High-Dimensional Failure Time Data—◆Edsel A. Pena, University of South Carolina; Joshua D. Habiger, National Agricultural Statistics Service/National Institute of Statistical Sciences; Wensong Wu, University of South Carolina

10:15 a.m. Floor Discussion

464 CC-214 (West)

■ ✪ Real-Time Economic Indicators—Topic-Contributed

Business and Economic Statistics Section
Organizer(s): Marc Wildi, Zurich University of Applied Sciences
Chair(s): Mark C. Greenwood, Montana State University

8:35 a.m. Asymmetric Henderson's Moving Averages Minimizing Phase-Shift—Dominique Ladiray, INSEE; ◆Michel Grun-Rehomme, ENSAE

8:55 a.m. Monitoring the Economy: An Application of Multivariate Real-Time Signal Extraction—◆Marc Wildi, Zurich University of Applied Sciences

9:15 a.m. What Do Macroeconomists Know About Productivity Growth?—◆Simon Van Norden, HEC Montreal; Jan P.A.M. Jacobs, University of Groningen

9:35 a.m. Real-Time Simulation of Alternative Specification of Euro Area Turning Points Detection—◆Gian Luigi Mazzi, EUROSTAT; Monica Billio, Università di Venezia; Rosa Ruggeri Cannata, EUROSTAT

10:15 a.m. Floor Discussion

Topic-Contributed Panel
8:30 a.m.–10:20 a.m.

465 CC-306 (West)

Panel on NIH Funding of Biostatistical Research and Training—Topic-Contributed

Biometrics Section, ENAR, Section on Teaching of Statistics in the Health Sciences
Organizer(s): Keith Crank, ASA
Chair(s): Keith Crank, ASA

Panelists: ◆Shawn Drew, National Institute of General Medical Sciences

◆Michelle Dunn, National Cancer Institute

◆Jeremy Taylor, University of Michigan

◆Denise Wiesch, Center for Scientific Review/National Institutes of Health

10:15 a.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Contributed Sessions 8:30 a.m.–10:20 a.m.

466 CC-205 (West)

■ ✪ fMRI and EEG Data—Contributed

Biometrics Section

Chair(s): Armin Schwartzman, Harvard School of Public Health

8:35 a.m. Reliable Measures of Functional Connectivity in the Brain in the Presence of Physiological Nuisance Signals—◆Ohn Jo Koh, Southern Methodist University; William R. Schucany, Southern Methodist University; Jeffrey Spence, The University of Texas Southwestern Medical Center at Dallas; Wayne A. Woodward, Southern Methodist University

8:50 a.m. Functional Mixed-Effects Model for Analyzing fMRI Data—◆Ragnheidur Haraldsdottir, Columbia University; Martin Lindquist, Columbia University

9:05 a.m. Noise Assumptions in Complex-Valued SENSE MR Image Reconstruction—◆Daniel B. Rowe, Marquette University; Iain P. Bruce, Marquette University

9:20 a.m. Learning Functional Brain Connectivity with Time-Series Bayesian Network from fMRI Data—◆Xiangxiang Meng, University of Cincinnati; Xiaodong Lin, Rutgers University

9:35 a.m. Probability Maps for Brain Activity via fMRI—◆Lynne Seymour, The University of Georgia; Ana Bargo, The University of Georgia; Abhyuday Mandal, The University of Georgia; Nicole Lazae, The University of Georgia; Jennifer McDowell, The University of Georgia

9:50 a.m. FUNER: A Novel Approach for the EEG/MEG Inverse Problem—◆T. Siva Tian, University of Houston; Zhimin Li, The University of Texas Health Science Center at Houston

10:05 a.m. Automatic Multiple-Stage Classification of Sleep Stages of Songbirds—◆Hong Xu, Nanyang Technological University; Zhiyi Chi, University of Connecticut; Daniel Margoliash, The University of Chicago; Sylvan Shank, The University of Chicago

467 CC-206 (West)

■ Survival Analysis: Comparing Risks and Frailty Models—Contributed

Biometrics Section, Section on Risk Analysis

Chair(s): Jie Chen, University of Missouri-Kansas City

8:35 a.m. Assessing Agreement for Frailty Models—◆Amita K. Manatunga, Emory University; Ying Guo, Emory University

8:50 a.m. On the Correlated Gamma Frailty Model for Bivariate Current Status Data—◆Niel Hens, Hasselt University; Andreas Wienke, University Halle-Wittenberg

9:05 a.m. Testing Small Center Events in Multicenter Trials Using Survival Modeling—◆Usha Sita Govindarajulu, University of Massachusetts Medical School; Elizabeth J. Malloy, American University; James Dziura, Yale University

9:20 a.m. Stochastic Frailty Model Induced by Time-Dependent Covariates—◆Lyrica Xiaohong Liu, University of Michigan

9:35 a.m. Proportionality of Hazards in Competing Risk Analysis—◆Hongyue Wang, University of Rochester Medical Center

9:50 a.m. Semiparametric Analysis of Competing Risks Survival Data with Missing Cause of Failure—◆Jinkyung Ha, University of Michigan; Alexander Tsodikov, University of Michigan

10:05 a.m. On the Asymptotic Behavior of the Pseudo-Likelihood Ratio Test Statistic with Boundary Problems—◆Yong Chen, The Johns Hopkins University; Kung-Yee Liang, The Johns Hopkins University

468 CC-221 (West)

■ Evaluation of QT/QTc Studies and Bioequivalence—Contributed

Biopharmaceutical Section

Chair(s): Richard Kotz, FDA

8:35 a.m. Comparison of Statistical Models Adjusting for Baseline in the Analysis of Thorough QT/QTc Studies—◆Guowen (Gordon) Sun, sanofi-aventis; Hui Quan, sanofi-aventis

8:50 a.m. QTc Model Misspecification May Cause Spurious Carryover Effects—◆Xiaodong Li, Merck & Co., Inc.; Andrea Maes, Novartis Pharmaceuticals Corporation; Deborah Panebianco, Merck & Co., Inc.

9:05 a.m. Utility of Positive Controls in Assessing QT Interval Sensitivity—◆Alan Y. Chiang, Eli Lilly and Company

9:20 a.m. Multivariate Extensions of Population Bioequivalence: Comparison of Measures—◆Bassam A. Dahman, Virginia Commonwealth University; Viswanathan Ramakrishnan, Virginia Commonwealth University

9:35 a.m. An Asymptotically Distribution-Free Test to Assess Exchangeability of a Test Treatment and the Standard Treatment—◆Jiuzhou Wang, Cephalon Inc.; Steven Chung-Kuei Chang, Cephalon Inc.

9:50 a.m. A New Approach to Estimate the Maximal Mean Treatment Difference in Thorough QT/QTc Studies—◆Shui He, sanofi-aventis

10:05 a.m. Floor Discussion

469 CC-216 (West)

■ Topics in Clinical Trials—Contributed

Biopharmaceutical Section
Chair(s): Richard Caplan, AstraZeneca

8:35 a.m. The Case for Embedding a Detailed Statistical Analysis Plan in Clinical Trial Protocols—◆Keaven M. Anderson, Merck Research Laboratories; Chris Assaid, Merck Research Laboratories

8:50 a.m. The Benefit of Stratified Clinical Trials Revisited—◆Jitendra Ganju, Amgen Inc.; Kefei Zhou, Amgen Inc.

9:05 a.m. Application of Methods for Assessing Risk-Benefit Based on Clinical Trial Data—◆Menghui Chen, Merck & Co., Inc.; Shailaja Suryawanshi, Merck & Co., Inc.

9:20 a.m. Assessing Treatment Effect in Clinical Trials with Dichotomous Endpoints—◆Gang Jia, Merck & Co., Inc.

9:35 a.m. A 'Paradox' in the Use of an ANCOVA Model in Determination of Treatment Effect in Clinical Trials—◆Chi-Hse Teng, Amylin Pharmaceuticals; Ping Yan, Amylin Pharmaceuticals; Larry Z. Shen, Amylin Pharmaceuticals

9:50 a.m. Benefit Risk Assessment Incorporating Time Component—◆Paulette Ceesay, Merck & Co., Inc.; Richard Entsuah, Merck & Co., Inc.

10:05 a.m. Floor Discussion

470 CC-121 (West)

■ Bayesian Clinical Trials—Contributed

Section on Bayesian Statistical Science
Chair(s): Yan Zheng, sanofi-aventis

8:35 a.m. On the Use of Historical Information in Selecting Design Type for Phase II Oncology Trials—◆Yiyi Chen, Oregon Health & Science University; Rongwei (Rochelle) Fu, Oregon Health & Science University; Zunqiu Chen, Oregon Health & Science University

8:50 a.m. Phase I Dose-Finding in Cancer Trials Based on a Discrete Time Multistate Model—◆Lin Yang, MD Anderson Cancer Center; Nebiyou Bekele, MD Anderson Cancer Center; Donald Arthur Berry, MD Anderson Cancer Center

9:05 a.m. Bayesian Modeling Analysis of Longitudinal Clinical Data and Power Comparison to Frequentist Approach—◆Quan Hong, Eli Lilly and Company

9:20 a.m. Forecasting Clinical Trial Enrollment: A Case Study—◆Zachary Skrivanek, Eli Lilly and Company

9:35 a.m. Bayesian Adaptive Phase II/III Clinical Trial Design Using the Relationship Between Tumor Response and Survival—Donald Arthur Berry, MD Anderson Cancer Center; ◆Haiying Pang, MD Anderson Cancer Center

9:50 a.m. Bayesian Sequential Meta-Analysis of Rofecoxib Placebo-Controlled Clinical Trials—◆Jerry Cheng, Rutgers University; David Madigan, Columbia University

471 CC-213 (West)

■ ✪ The Use of Statistics to Inform Economic Policy—Contributed

Section on Government Statistics, Social Statistics Section
Chair(s): Gwyn R. Ferguson, Bureau of Labor Statistics

8:35 a.m. The Effect of Weights and Sampling Plans on Price Index Estimates: A Simulation Study—◆Daniele Toninelli, University of Bergamo; Zdenek Patak, Statistics Canada

8:50 a.m. Estimation and Comparison of Seasonally Adjusted CPI-U Standard Errors with Official CPI-U Standard Errors—◆Owen Shoemaker, Bureau of Labor Statistics

9:05 a.m. Comparison of Variance Estimation Methods Using PPI Data—◆Andy Sadler, Bureau of Labor Statistics; Helen Chen, Bureau of Labor Statistics

9:20 a.m. Studying Simulated Mass Layoff Events and Employment/Unemployment Data with Factor Analysis, Multiple Regression, and Bayesian Methods—◆Zhe (Jason) Liu, Iowa State University; Mack Shelley, Iowa State University

9:35 a.m. Using Worker Flows in the Analysis of Establishment Turnover: Evidence from Germany—◆Tanja Hethey, Institute for Employment Research; Johannes F. Schmieder, Columbia University

9:50 a.m. An Evaluation of Hot-Deck and On-Cycle Imputation of Missing Price Change in the Commodities and Services Component of the U.S. Consumer Price Index—◆Sylvia Gail Leaver, Bureau of Labor Statistics; Darin T. Solk, Bureau of Labor Statistics

10:05 a.m. Defining an Outlet: What Characteristics Are Truly Price Determining?—◆Sara Stanley, Bureau of Labor Statistics

472 CC-208 (West)

■ ✪ Applications of Establishment Data and Bias Reduction in Survey Design—Contributed

Section on Government Statistics, Social Statistics Section
Chair(s): Shail Jain Butani, Bureau of Labor Statistics

8:35 a.m. Simulating JOLTS Hires and Separations Data Using Historical QCEW Data—◆Mark Crankshaw, Bureau of Labor Statistics

8:50 a.m. Impact of Younger Establishments on the Job Opening and Labor Turnover Survey—◆Darrell Greene, Bureau of Labor Statistics

9:05 a.m. Functional Principal Component Analysis of Density Families with Categorical and Continuous Data on Canadian Entrant Manufacturing Firms—◆Kim P. Huynh, Indiana University; David T. Jacho-Chavez, Indiana University; Robert J. Petrunia, Lakehead University; Marcel Cristian Voia, Carleton University

9:20 a.m. Redesign of the Annual Fuel Oil and Kerosene Report Sales Report Survey—◆Bin Zhang, Energy Information Administration; Pedro Saavedra, ICF Macro; Benita Jean O'Colmain, ICF Macro; Paula Ellen Mason, Energy Information Administration; Amerine Woodyard, Energy Information Administration

9:35 a.m. An Assessment of the Effect of Calibration on Nonresponse Bias in the 2008 Agricultural Resource Management Survey Using 2007 Census of Agriculture Data—◆Morgan Earp, National Agricultural Statistics Service; Jaki McCarthy, National Agricultural Statistics Service; Eric Porter, National Agricultural Statistics Service; Phil Kott, National Agricultural Statistics Service

9:50 a.m. Evaluation of Alternative Nonresponse Adjustments—◆Jason Hill, American Institutes for Research

10:05 a.m. Floor Discussion

473 CC-210 (West)

Random Effects Modeling in Health Policy Research: Methods and Applications—Contributed

Health Policy Statistics Section

Chair(s): Lisa M. Lix, University of Saskatchewan

8:35 a.m. Bayesian and Frequentist Methods for Provider Profiling Using Risk-Adjusted Assessments of Medical Outcomes—◆Michael Joseph Racz, Albany College of Pharmacy and Health Sciences; Joseph Sedransk, Case Western Reserve University

8:50 a.m. Estimation of Minimum Mortality Rates and Excess Mortality from Regional Data—◆Ronald Gangnon, University of Wisconsin

9:05 a.m. Combining Information on Adjuvant Cancer Therapies from Multiple Sources to Correct Misreporting—◆Yulei He, Harvard Medical School; Alan Zaslavsky, Harvard Medical School

9:20 a.m. Confidence Interval Estimation for Inter-Rater Reliability in a Two-Factor Random-Effects Design—◆Joseph C. Cappelleri, Pfizer Inc.; Kelly H. Zou, Pfizer Inc.; Carmen Arteaga, Pfizer Inc.; Naitee Ting, Boehringer Ingelheim Pharmaceuticals, Inc.

9:35 a.m. Heterogeneity of Variance in One-Way Random Effect Model: A Meta-Analysis Review of the National Health Interview Survey Data—◆Abera Wouhib, National Center for Health Statistics; Myron Katzoff, CDC; Meena Khare, National Center for Health Statistics

9:50 a.m. Logistic Growth Curve Modeling for Health-Related Quality-of-Life Data—◆Zugui Zhang, Christiana Care Health System; Paul Kolm, Christiana Care Health System; William S. Weintraub, Christiana Care Health System

10:05 a.m. Implementation of a Kronecker Product Correlation Structure for the Analysis of Live-Donor Kidney Transplant Rates—◆Arwin Thomasson, University of Pennsylvania; Hanjoo Kim, Forrest Labs; Justine Shults, University of Pennsylvania; Russell Localio, University of Pennsylvania; Harold Feldman, University of Pennsylvania; Peter Reese, University of Pennsylvania

474 CC-9 (East)

■ ✪ Reliability in Applications—Contributed

Section on Physical and Engineering Sciences

Chair(s): Sarah Kalicin, Intel Corporation

8:35 a.m. Statistical Methods for Estimating a Minimum—◆Shiyao Liu, Iowa State University; William Q. Meeker, Iowa State University

8:50 a.m. A Statistical Approach for a Special Censoring/Truncation Problem Arising in Nondestructive Evaluation—◆Ming Li, Iowa State University; William Q. Meeker, Iowa State University

9:05 a.m. Accelerated Reliability Testing in a Field Study—◆Maria Weese, Institute for Statistical Engineering; Steve Fox, Aera Energy, LLC; Mary Leitnaker, Institute for Statistical Engineering; Deanna Starbuck, Aera Energy, LLC

9:20 a.m. Revealing Latent Quality Information Hidden Within Inspection Reports of Curtailed Tests—◆Tamar Gadrich, Ort Braude College; Emil Bashkansky, Ort Braude College

9:35 a.m. Random Effect Bivariate Survival Models and Stochastic Comparisons—◆Ramesh C. Gupta, University of Maine; Rameshwar D. Gupta, University of New Brunswick

9:50 a.m. Automobile Warranty Data Analysis—◆Jaiwook Baik, Korea National Open University

10:05 a.m. Inference Based on Doubly Type II and Progressively Hybrid Censored Data from Exponential Distribution—◆Deepak Sanjel, Minnesota State University

475 CC-15 (East)

■ ✪ Statistical Process Control II—Contributed

Section on Quality and Productivity

Chair(s): Willis Jensen, W.L. Gore & Associates

8:35 a.m. Phase II Monitoring of Covariance Stationary ARMA Processes—Marcus Perry, University of Alabama; ◆Gary Mercado, The University of Alabama

8:50 a.m. A Nonparametric Change Point Model for Multivariate Phase II Statistical Process Control—◆Mark David Holland, University of Minnesota; Douglas Hawkins, University of Minnesota

9:05 a.m. A Multivariate Control Chart Increases in Process Dispersion—◆Chia-Ling Yen, National Chiao Tung University; Jyh-Jen Horng Shiau, National Chiao Tung University

9:20 a.m. Comparisons of Estimators of Process Standard Deviation in Constructing Shewhart Control Charts with Unequal Subgroup Sizes—◆Nien Fan Zhang, National Institute of Standards and Technology; Per Winkel, Copenhagen Trial Unit

9:35 a.m. Use of CUSUM Control Charts When Population Size Changes Over Time—◆J. Brooke Marshall, Merck Research Laboratories; Dan J. Spitzner, University of Virginia

9:50 a.m. On Monitoring Process Variance with Individual Observations—◆Arthur Yeh, Bowling Green State University

10:05 a.m. Floor Discussion

476 CC-122 (West)

■ Risk Analysis in Business and Finance—Contributed

Section on Risk Analysis

Chair(s): Ning Sun, State University of New York at Stony Brook

8:35 a.m. Variable Selection in Discrete Choice Models—◆Yoshinori Kawasaki, The Institute of Statistical Mathematics; Masao Ueki, Yamagata University

8:50 a.m. Visualizing Risks, Benefits, and Uncertainty in Three Dimensions—◆Richard Forshee, FDA; Mark Walderhaug, FDA; Arianna Simonetti, FDA; Anne Fernando, Norfolk State University

9:05 a.m. Regularization for Stationary Multivariate Time Series—◆Yan Sun, University of Cincinnati; Xiaodong Lin, Rutgers University

9:20 a.m. On the Asymptotic Distribution of LRT When Parameters Lie on the Boundary—◆Bimal K. Sinha, U.S. Environmental Protection Agency; Leonid Kopylev, U.S. Environmental Protection Agency

9:35 a.m. Generalized Extreme Value Regression: An Application to Defaults in Credit Risk Analysis—◆Raffaella Calabrese, Bicocca University of Milan; Silvia Osmetti, Cattolica University of Milan

9:50 a.m. Remaining Life Prediction in Credit Risk Models—Agus Sudjianto, Bank of America; ◆Sheela Nair, Bank of America; Ming Yuan, Georgia Institute of Technology

10:05 a.m. A Skew-Normal Approximations to the Distribution of Aggregate Claims—◆Kumer Pial Das, Lamar University; Akm Islam, Lamar University

477 CC-16 (East)

Activities and Projects: From Introductory to Upper-Level Courses—Contributed

Section on Statistical Education

Chair(s): Dexter C. Whittinghill, Rowan University

8:35 a.m. Nothin' but Fun—◆Harry James Norton, Carolinas Medical Center

8:50 a.m. Addressing the Lexical Ambiguity Associated with the Word Random in Introductory Statistics Classes—◆Diane Fisher, University of Louisiana at Lafayette; Jennifer Kaplan, Michigan State University; Neal Rogness, Grand Valley State University

9:05 a.m. The STAT-ATTIC Website: A Database of Statistics Applets for Teaching Topics in Introductory Courses—◆Concetta Anne DePaolo, Indiana State University

9:20 a.m. Enhancing the Teaching of Statistics: Analysis of Spatial Data Using SOCR and R—◆Nicolas Christou, University of California, Los Angeles; Ivo Dinov, University of California, Los Angeles

9:35 a.m. A Comprehensive Probability Project for the Upper-Division One-Semester Probability Course Using Yahtzee—◆Jason Wilson, Biola University

9:50 a.m. Guitar Hero M326: A Mathematical Statistics Project for Undergraduates—◆Ivan Ramler, St. Lawrence University

10:05 a.m. Floor Discussion

478 CC-17 (East)

Teaching Statistics: From Team-Based Learning to Quantitative Reasoning—Contributed

Section on Statistical Education

Chair(s): William M. Goodman, University of Ontario Institute of Technology

8:35 a.m. Team-Based Learning for Introductory Statistics—Laura Chihara, Carleton College; ◆Katherine St. Clair, Carleton College

8:50 a.m. The Distributional Efficacy of Collaborative Learning Recitation Sessions on Student Outcomes—◆James K. Self, Indiana University; Kim P. Huynh, Indiana University; David T. Jacho-Chavez, Indiana University

9:05 a.m. The Role of Statistics in Science and Everyday Life: A First-Year Seminar—◆Jessica Chapman, St. Lawrence University

9:20 a.m. Moving Toward a Quantitative Literacy Core Competency Requirement—◆A. John Bailer, Miami University

9:35 a.m. Assessment of Quantitative Reasoning Across a General Education Curriculum—◆Stephanie Lopez Cano, The University of Texas at San Antonio; Nandini Kannan, The University of Texas at San Antonio; Ermine Orta, The University of Texas at San Antonio

9:50 a.m. The Social Construction of Rankings—◆Milo Schield, Augsburg College

10:05 a.m. Floor Discussion

479 CC-14 (East)

Supervised and Semisupervised Statistical Modeling—Contributed

Section on Statistical Learning and Data Mining

Chair(s): Andrés Houseman, Brown University

8:35 a.m. Mining Drug Data via Mixtures and Corresponding Computational Issues—◆Xu (Sunny) Wang, St. Francis Xavier University; Hugh A. Chipman, Acadia University

8:50 a.m. Sparse Semisupervised Methods for Predicting Patient Survival Probabilities with Large-Scale Biological Data—◆Karthik Devarajan, Fox Chase Cancer Center

9:05 a.m. Empty K-Means Skill-Set Profile Clustering in Educational Testing—◆Nema Dean, University of Glasgow; Rebecca Nugent, Carnegie Mellon University; Elizabeth Ayers, University of California, Berkeley

9:20 a.m. PartDSA: The Partitioning Deletion/Substitution/Addition Algorithm for Creating Survival Risk Groups—◆Karen Lostritto, Yale University; Rob Strawderman, Cornell University; Annette Molinaro, Yale University

9:35 a.m. Hierarchical Clustering with Prototypes: Minimax Linkage—◆Jacob Bien, Stanford University; Rob Tibshirani, Stanford University

9:50 a.m. Using Imputation-Based Data Mining Techniques to Characterize Ambiguous Categorical Predictors in Statistical Models—Hua Fang, University of Nebraska-Lincoln; ◆Honggang Wang, University of Massachusetts, Dartmouth

10:05 a.m. Floor Discussion

480 CC-202 (West)

■ Infectious Disease Epidemiology—Contributed

Section on Statistics in Epidemiology

Chair(s): Youngju Pak, University of Missouri-Columbia

8:35 a.m. Statistical Analysis of Data from the Initial Stage of the Pandemic Influenza—◆Shenghai Zhang, Public Health Agency of Canada

8:50 a.m. Age-Specific Differences in the Epidemic Curves for Influenza A Virus: Do School Children Drive the Spread of Influenza Epidemics?—◆Dena Lynn Schanzer, Public Health Agency of Canada

9:05 a.m. Estimation of an Epidemic Curve During an Outbreak: A Classification Approach—◆Elaine O. Nsoesie, Virginia Tech; Richard Beckman, Virginia Tech; Madhav Marathe, Virginia Tech

9:20 a.m. A Simulation-Based Improvement—◆Thomas H. Taylor Jr., CDC; Melissa Lewis, CDC; Elizabeth R. Zell, CDC

9:35 a.m. Cluster Detection Using Scan Statistics and Risk Factors for Encephalitis from West Nile Virus Infection—◆Sarah Baraniuk, The University of Texas Health Science Center at Houston; Kristy Murray, The University of Texas Health Science Center at Houston

9:50 a.m. Comparisons of Estimates of Influenza- and Respiratory Syncytial Virus-Associated Hospitalizations—◆Hong Zhou, CDC/AREF; William Thompson, CDC; Cecile Viboud, National Institutes of Health; Corinne Ringholz, National Institutes of Health/Analytic Services Inc.; Claudia Steiner, AHRQ; Lynnette Brammer, CDC; Glen Abedi, CDC; Larry Anderson, CDC; David Shay, CDC

10:05 a.m. Modeling Hepatitis Delta Virus Viral Dynamics with and Without Antiviral Therapy—◆Bruno C. De Sousa, Institute of Hygiene and Tropical Medicine; Celso Cunha, Institute of Hygiene and Tropical Medicine

481 CC-203 (West)

Survival Methods and Poisson Regression for Health Data—Contributed

Section on Statistics in Epidemiology

Chair(s): Michael Joseph Campbell, University of Sheffield

8:35 a.m. Application of Left Truncation Survival Methods in a Large Disease Registry: A Case Study with Practical Implications—◆Dave P. Miller, ICON Clinical Research; Aimee J. Foreman, ICON Clinical Research

8:50 a.m. The Incidence of Disease and the Poisson Assumption—◆Lawrence Lessner, New York State Department of Health

9:05 a.m. Computationally Efficient Marginal Models for Recurrent Event Data—◆Dandan Liu, University of Michigan; Douglas E. Schaubel, University of Michigan; John David Kalbfleisch, University of Michigan

9:20 a.m. The Reliability of Signal Analysis in the Adverse Events Setting of Priorities—◆Qian Graves, FDA/CFSAN; Peng T. Liu, FDA; Stuart Chirtel, FDA/CFSAN; Curtis Barton, FDA/CFSAN; Debra Street, FDA/CFSAN

9:35 a.m. Modifications of and Alternatives to the SMR in Evaluating Center-Specific Mortality—◆Kevin He, University of Michigan; Douglas E. Schaubel, University of Michigan

9:50 a.m. Interval Estimation of Epidemiological Indices for Data Sampled from Clusters: A Review and an Extension—◆Tasneem Zaihra, University of New Brunswick; Sudhir Paul, University of Windsor

10:05 a.m. On the Interval Estimation of Risk Ratio for a Cohort Study with Multiple Matching—◆Khairul Islam, University of Michigan; Tanweer Jahan Shapla, Eastern Michigan University

482 CC-110 (West)

■ ✪ Statistical Applications in Sports—Contributed

Section on Statistics in Sports
Chair(s): Andrew Swift, University of Nebraska-Omaha

8:35 a.m. The Effect of Back-to-Back Games in the NHL: Top Shelf or Garbage Goal?—◆Michael Rutter, Penn State Erie, The Behrend College

8:50 a.m. Strategies for Pulling the Goalie in Hockey—◆David Beaudoin, Universite Laval; Tim B. Swartz, Simon Fraser University

9:05 a.m. Mapping Batter Ability in Baseball by Using Spatial Statistics Techniques—◆Dana Draghicescu, Hunter College, CUNY; Benjamin Strong Baumer, CUNY Graduate Center

9:20 a.m. Evaluating Individual Player Contributions in Basketball—◆Jarad Niemi, University of California, Santa Barbara

9:35 a.m. On the Distribution of Runs Scored and Batting Strategy in Test Cricket—◆Xin Shi, Manchester Metropolitan University

9:50 a.m. Estimating Evolution of Scoring Intensities in Soccer Matches—◆Mladen Laudanovic, Columbia University

10:05 a.m. Floor Discussion

483 CC-215 (West)

■ ✪ Innovations in Imputation Methodology and Application—Contributed

Section on Survey Research Methods, Section on Government Statistics
Chair(s): Joerg Drechsler, Institute for Employment Research

8:35 a.m. Balanced Random Imputation for Estimating Coefficients of Correlations in Surveys—◆David Haziza, Université de Montréal; Guillaume Chauvet, ENSAI

8:50 a.m. Imputation Methods for Wave Nonresponse in Panel Surveys—◆Kyu-Seong Kim, University of Seoul

9:05 a.m. Evaluation of the Quality of Imputation of GST Revenue for Late Transactions—◆Joanne Leung, Statistics Canada

9:20 a.m. Using SRMI for Nonresponse Adjustments in IRS' Taxpayer Compliance Studies—Karen Masken, IRS; ◆Wei Liu, IRS; Getaneh Yismaw, IRS

9:35 a.m. Bootstrap Variance Estimation in the Presence of Imputed Data—◆Christian Léger, Université de Montréal; Zeinab Mashreghi, Université de Montréal; David Haziza, Université de Montréal

9:50 a.m. Robust Imputation in Surveys—◆Valery Dongmo Jiongo, Université de Montréal; David Haziza, Université de Montréal; Pierre Duchesne, Université de Montréal

10:05 a.m. Floor Discussion

484 CC-209 (West)

Optimal Survey Designs—Contributed

Section on Survey Research Methods
Chair(s): Shiying Wu, RTI International

8:35 a.m. Optimal Survey Design: A Review—◆Jeffrey Mark Gonzalez, Bureau of Labor Statistics; John L. Eltinge, Bureau of Labor Statistics

8:50 a.m. Probability-Proportional-to-Size Sampling from a Rare Population—◆Jens Olofsson, Örebro University

9:05 a.m. Multi-Objective Evolutionary Algorithms for Multivariate Optimal Allocation—◆Charles D. Day, IRS

9:20 a.m. Optimal Design for Consistent Rating of Classroom Instructions—◆Yongyun Shin, Virginia Commonwealth University; Stephen W. Raudenbush, The University of Chicago

9:35 a.m. Where Youth Buy Cigarettes: Clustering Patterns and Efficient Design—◆Christopher Patrick Cummiskey, RTI International; Victoria McNerney, RTI International; Karol Krotki, RTI International

9:50 a.m. Using Stratification Trends to Keep Tobacco Products Out of the Hands of Minors—◆Victoria McNerney, RTI International; Christopher Patrick Cummiskey, RTI International; Karol Krotki, RTI International

10:05 a.m. Adaptive Contact Strategies in Telephone and Face-to-Face Surveys—◆James Wagner, University of Michigan

Invited Sessions
10:30 a.m.–12:20 p.m.

485 CC-201 (West)

■ ✪ Complex Systems in Marketing—Invited

Section on Statistics and Marketing, IMS, International Chinese Statistical Association
Organizer(s): William Rand, University of Maryland Robert H. Smith School of Business
Chair(s): Wolfgang Jank, University of Maryland Robert H. Smith School of Business

10:35 a.m. Pump It Up! Social Pumps and Information Diffusion in Social Networks—◆Andrew Stephen, INSEAD; Jacob Goldenberg, Hebrew University of Jerusalem; Yaniv Dover, Hebrew University of Jerusalem

11:05 a.m. Using Agent-Based Models in Statistics and Statistics in Agent-Based Modeling: Examples in Facebook and eBay—◆William Rand, University of Maryland Robert H. Smith School of Business; Wolfgang Jank, University of Maryland Robert H. Smith School of Business; Michael Trusov, University of Maryland Robert H. Smith School of Business; Wei Guo, University of Maryland Robert H. Smith School of Business

11:35 a.m. Agent-Based Simulations with Historical Data: Issues in Validation—◆Robert E. Marks, University of New South Wales

12:05 p.m. Floor Discussion

486 CC-118 (West)

■ ✪ Statistics and Public Policy: Some Case Studies—Invited

Section on Statistics and the Environment
Organizer(s): James R. Thompson, Rice University
Chair(s): James R. Thompson, Rice University

10:35 a.m. Analysis of Global Warming Data: A Contrarian Data-Based View—◆Edward J. Wegman, George Mason University

11:05 a.m. Cancer Risk in the Environment: Public Policy Issues in Screening—◆Karen Kafadar, Indiana University; Philip Prorok, National Cancer Institute

11:35 a.m. Houston Air Quality: The Interplay Between Statistics, Policy, and Politics—◆Katherine Bennett Ensor, Rice University

12:05 p.m. Floor Discussion

487 CC-206 (West)

■ ✪ Impact of Statistics on Next-Generation Sequencing—Invited

ENAR, Biometrics Section, IMS, International Chinese Statistical Association
Organizer(s): Jeanette Eckel-Passow, Mayo Clinic
Chair(s): Terry Therneau, Mayo Clinic

10:35 a.m. Statistics, Technology, Epigenomics, and Our Future—◆Rebecca W. Doerge, Purdue University; Paul Auer, Purdue University

11:00 a.m. Detecting Alternative Splicing with RNAseq—◆Elizabeth Purdom, University of California, Berkeley

11:25 a.m. Understanding Immune Response with mRNA-SEQ Gene Expression Data—◆Ann Oberg, Mayo Clinic; Diane Grill, Mayo Clinic; Brian Bot, Mayo Clinic; Yan Asmann, Mayo Clinic; Gregory Poland, Mayo Clinic; Terry Therneau, Mayo Clinic

11:50 a.m. Disc: W. Evan Johnson, Brigham Young University

12:10 p.m. Floor Discussion

488 CC-302/303 (West)

■ ✪ Experiences of Statistical Consulting in Lawsuits—Invited

Committee on Law and Justice Statistics, Section on Statistical Consulting, Social Statistics Section
Organizer(s): William B. Fairley, Analysis & Inference, Inc.
Chair(s): Richard Goldstein, PhD

10:35 a.m. Drug Deals and Jury Wheels: Explaining Systematic Sampling in Court—◆George Cobb, Mt. Holyoke College

10:55 a.m. Law and Statistics of Combining Categories: Walmart and Employment Discrimination Cases—◆Albert J. Lee, Summit Consulting, LLC; Alan J. Salzberg, Analysis & Inference, Inc.

11:15 a.m. Formal Statistical Analysis Provides Sounder Inferences Than the U.S. Government's 'Four-Fifths Rule': Examining the Data from Ricci v. DeStefano—◆Weiwen Miao, Haverford College; Joseph L. Gastwirth, Washington University

11:35 a.m. Disc: Raymond W. Falk, *In memory of Will Yancey

11:55 a.m. Floor Discussion

489 CC-209 (West)

■ ✪ Advancing Statistical Methodology for USDA Surveys and Their Analysis—Invited

ENAR, Section on Survey Research Methods
Organizer(s): Nell Sedransk, National Institute of Statistical Sciences
Chair(s): Mark Harris, National Agricultural Statistics Service

10:35 a.m. Multivariate Imputation Methods for Agricultural Resource Management Survey (ARMS) Data—◆Sujit Kumar Ghosh, North Carolina State University; Michael Robbins, National Institute of Statistical Sciences; Joshua D. Habiger, National Agricultural Statistics Service/ National Institute of Statistical Sciences; Darcy Miller, National Agricultural Statistics Service

11:00 a.m. Precise Estimates of the Number of Farms in the United States—◆Linda J. Young, University of Florida; Denise Alexandra Abreu, National Agricultural Statistics Service; Pam Arroway, North Carolina State University; Andrea C. Lamas, National Agricultural Statistics Service; Kenneth K. Lopiano, University of Florida

11:25 a.m. Advancing Statistical Methodology for USDA Surveys and Their Analysis—◆Jianqiang (Jay) Wang, National Institute of Statistical Sciences; Scott Holan, University of Missouri; Balgobin Nandram, Worcester Polytechnic Institute; Criselda Toto, Worcester Polytechnic Institute; Wendy J. Barboza, National Agricultural Statistics Service; Edwin Anderson, National Agricultural Statistics Service

11:50 a.m. Disc: Jean Opsomer, Colorado State University

12:10 p.m. Floor Discussion

490 CC-Ballroom C (West)

Medallion Lecture II—Invited

IMS, International Chinese Statistical Association
Organizer(s): Regina Liu, Rutgers University
Chair(s): Larry Wasserman, Carnegie Mellon University

10:35 a.m. Discovering Regression Structure with a Bayesian Ensemble—◆Edward I. George, University of Pennsylvania

12:15 p.m. Floor Discussion

491 CC-110 (West)

✪ Inaugural Computing-Graphics Software Award—Invited

Section on Statistical Computing, Committee on Applied Statisticians, Section on Statistical Graphics
Organizer(s): Thomas Lumley, University of Washington
Chair(s): Antony Unwin, Augsburg University

10:35 a.m. Lessons Learned: Directions for the Future—◆Ross Ihaka, University of Auckland

492 CC-301 (West)

■ Conducting Effective Nonresponse Bias Analysis Studies in Household and Establishment Surveys—Invited

Section on Government Statistics, Health Policy Statistics Section, Section on Survey Research Methods, Social Statistics Section
Organizer(s): Katherine Jenny Thompson, U.S. Census Bureau
Chair(s): Katherine Jenny Thompson, U.S. Census Bureau

10:35 a.m. Conducting Nonresponse Bias Analysis for Business Surveys—◆Joanna Fane Lineback, U.S. Census Bureau; Katherine Jenny Thompson, U.S. Census Bureau

11:00 a.m. Measuring Nonresponse Bias in the National Crime Victimization Survey—◆Zhiwei Zhang, NORC; Louise Woodburn, NORC; Fritz Scheuren, NORC

11:25 a.m. Conducting Nonresponse Bias Analyses in Federal Surveys—◆Brian Harris-Kojetin, Office of Management and Budget

11:50 a.m. Disc: J. Michael Brick, Westat

12:10 p.m. Floor Discussion

493 CC-306 (West)

■ ✪ Statistics in Biosciences Invited Session: Emerging Issues in Analysis of High-Throughput Genomic Data—Invited

International Chinese Statistical Association
Organizer(s): Xihong Lin, Harvard School of Public Health
Chair(s): Xihong Lin, Harvard School of Public Health

10:35 a.m. Bayesian Partition Models for Detecting Interactions—◆Jun Liu, Harvard University

11:05 a.m. Exploring the 1000 Genomes Project with Bioconductor—◆Vincent James Carey, Harvard Medical School

11:35 a.m. On the Analysis of Genomewide Association Studies in Family-Based Designs: A Universal, Robust Analysis Approach and an Application to Four Genomewide Association Studies—◆Christoph Lange, Harvard School of Public Health

12:05 p.m. Floor Discussion

494 CC-212 (West)

■ ✪ Statistics and Cyber Security: Understanding the Emerging Threat—Invited

Section on Statistics in Defense and National Security, *CHANCE*, Section on Physical and Engineering Sciences
Organizer(s): Joanne Wendelberger, Los Alamos National Laboratory
Chair(s): Joanne Wendelberger, Los Alamos National Laboratory

10:35 a.m. Graph Anomalies in Cyber Communication—◆Scott Vander Wiel, Los Alamos National Laboratory; Curtis Storlie, Los Alamos National Laboratory

11:00 a.m. Graph-Based Network Anomaly Detection—◆Joshua Charles Neil, Los Alamos National Laboratory; Mike Fisk, Los Alamos National Laboratory; Curtis Storlie, University of New Mexico; Alexander Brugh, Los Alamos National Laboratory

11:25 a.m. When Science Meets Security—◆Roy Maxion, Carnegie Mellon University

11:50 a.m. Emerging Research Challenges in Cyber Security—◆Deborah Frincke, Pacific Northwest National Laboratory

12:15 p.m. Floor Discussion

495 CC-222 (West)

Methodological Advances in Official Time-Series Analysis—Invited

Business and Economic Statistics Section
Organizer(s): Tucker Sprague McElroy, U.S. Census Bureau
Chair(s): Tucker Sprague McElroy, U.S. Census Bureau

10:35 a.m. Seasonal Adjustment to Facilitate Forecasting: Empirical Results—◆William R. Bell, U.S. Census Bureau; Ekaterina Sotiris, U.S. Census Bureau

11:00 a.m. Measuring Uncertainty in X-11 Seasonal Adjustment—◆Stuart Scott, Bureau of Labor Statistics; Michail Sverchkov, Bureau of Labor Statistics; Danny Pfeffermann, Hebrew University

11:25 a.m. Interpolation, Benchmarking, and Temporal Distribution with Natural Splines—◆Benoit Quenneville, Statistics Canada; Susie Fortier, Statistics Canada; Frédéric Picard, Statistics Canada

11:50 a.m. Time Series Modeling of Official Statistics with Two-Stage Benchmarking—◆Richard Tiller, Bureau of Labor Statistics; Danny Pfeffermann, Hebrew University

12:15 p.m. Floor Discussion

496 CC-109 (West)

Noether Awards Invited Session—Invited

Noether Awards Committee
Organizer(s): Pam Craven, ASA

10:35 a.m. Importance Sampling: An Alternative View of Ensemble Learning—◆Jerome H. Friedman, Stanford University; Bogdan Popescu, Stanford University

11:20 a.m. Robust and Generalized Nonparametric Regression—◆Harrison Huibin Zhou, Yale University; Lawrence D. Brown, University of Pennsylvania; Tony Cai, University of Pennsylvania

12:05 p.m. Floor Discussion

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

497 CC-13 (East)

■ ✪ Dependent Priors for Bayesian Nonparametric Inference: Applied and Methodological Advances—Topic-Contributed

Section on Bayesian Statistical Science, IMS
Organizer(s): Antonio Lijoi, University of Pavia
Chair(s): Antonio Lijoi, University of Pavia

10:35 a.m. New Bayesian Nonparametric Mixture Models—◆Stephen Graham Walker, University of Kent; Ramses Mena, IIMAS-UNAM

10:55 a.m. High-Dimensional Nonparametric Bayes Modeling via Nonlinear Latent Factor Models—◆David Dunson, Duke University

11:15 a.m. A Nonparametric Bayesian Approach to Biomarker Discovery—◆Peter Mueller, MD Anderson Cancer Center; Alejandro Jara, Pontificia Universidad Católica de Chile

11:35 a.m. Robustness of Nonparametric Bayesian Methods—◆Steven MacEachern, The Ohio State University; Antonio Lijoi, University of Pavia

11:55 a.m. Disc: Matteo Ruggiero, University of Pavia

12:15 p.m. Floor Discussion

498 CC-214 (West)

■ Covariate-Adaptive Randomization and Associated Analyses—Topic-Contributed

Biopharmaceutical Section
Organizer(s): Bob Zhong, Johnson & Johnson
Chair(s): Sudhakar Rao, Johnson & Johnson

10:35 a.m. The Advantageous Adaptive Randomization in Clinical Trials—◆Bob Zhong, Johnson & Johnson

10:55 a.m. A Theory for Testing Hypotheses Under Covariate-Adaptive Randomization—◆Jun Shao, University of Wisconsin-Madison; Xinxin Yu, University of Wisconsin-Madison; Bob Zhong, Johnson & Johnson

11:15 a.m. Covariate-Adjusted Response-Adaptive Randomization Design with Survival Responses—◆Hongjian Zhu, University of Virginia; Feifang Hu, University of Virginia

11:35 a.m. Pros and Cons of Covariate-Adaptive Treatment Allocation Methods—◆Marc Buyse, IDDI

11:55 a.m. Floor Discussion

499 CC-9 (East)

■ Advances in Spline Smoothing—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Philip T. Reiss, New York University
Chair(s): Sanat K. Sarkar, Temple University

10:35 a.m. Functional Mixed Effects Modeling by Parameter Cascading—◆Jiguo Cao, Simon Fraser University; James Owen Ramsay, McGill University

10:55 a.m. Modeling a Repeated Ordered Categorical Response with Penalized Splines Using MCEM—◆Sue Welham, Rothamsted Research; James Carpenter, London School of Hygiene and Tropical Medicine; Tu Ho, London School of Hygiene and Tropical Medicine

11:15 a.m. Structured Penalties for Generalized Functional Linear Models (GFLM)—◆Jaroslaw Harezlak, Indiana University School of Medicine; Tim Randolph, Fred Hutchinson Cancer Research Center; Ziding Feng, Fred Hutchinson Cancer Research Center

11:35 a.m. Spline-Backfitted Kernel Smoothing of Generalized Additive Model—◆Rong Liu, University of Toledo; Lijian Yang, Michigan State University

11:55 a.m. Vector Splines and Vector Generalized Linear and Additive Models—◆Thomas William Yee, University of Auckland

12:15 p.m. Floor Discussion

500 CC-208 (West)

■ Programming in SAS—Topic-Contributed

Section for Statistical Programmers and Analysts
Organizer(s): Colin (Lin) Chen, Fannie Mae
Chair(s): Colin (Lin) Chen, Fannie Mae

10:35 a.m. Creating Dynamic HTML Pages with PC SAS, as a Prelude to SAS IntrNet or Integration Technologies—◆Qiang Hou, Harvard Pilgrim Health Care Institute

10:55 a.m. Programming in SAS—◆Robert Chengwen Chu, SAS Institute

11:15 a.m. Adjusted MSE Sequential Method—◆Limin Yang, Renmin University of China; Li Yang, Fiserv

11:35 a.m. Disc: Li Yang, Fiserv

11:55 a.m. Floor Discussion

501 CC-218/219 (West)

■ ✪ Statistical Methods for Handling Early Study Medication Discontinuations in a Time-to-Event Noninferiority Trial—Topic-Contributed

Biopharmaceutical Section, Committee on Applied Statisticians, Section for Statistical Programmers and Analysts
Organizer(s): Claude Petit, Boehringer Ingelheim Pharmaceuticals, Inc.
Chair(s): Susan Q. Wang, Boehringer Ingelheim Pharmaceuticals, Inc.

10:35 a.m. Analysis and Sensitivity Analysis for Incomplete Data—◆Geert Molenberghs, I-BioStat

10:55 a.m. A Comparison of the Results of Intent-to-Treat, per-Protocol, and g-Estimation in the Presence of Nonrandom Treatment Changes in a Time-to-Event Noninferiority Trial—◆Yutaka Matsuyama, The University of Tokyo

11:15 a.m. Sensitivity Analyses Adjusting for Early Discontinuation of Study Medication in the RE-LY Trial: An Open-Label, Randomized, Active-Controlled, Time-to-Event Noninferiority Trial—◆Xiuyu Cong, Boehringer Ingelheim Pharmaceuticals, Inc.; Qiqi Deng, Boehringer Ingelheim Pharmaceuticals, Inc.; Susan Q. Wang, Boehringer Ingelheim Pharmaceuticals, Inc.

11:35 a.m. Control Group Bias in RCTs: Methodologic Issues with Application to Atypical Antipsychotic Trials in Schizophrenia—◆Robert Makuch, Yale University; Ralitza Gueorguieva, Yale University; Scott Woods, Yale University; Scott Woods, Yale University

11:55 a.m. Disc: James Rubins, Harvard University

12:15 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

502 CC-205 (West)

■ ✪ Diffusion Tensor Imaging in the Brain: Tracts and Connectivity—Topic-Contributed

Biometrics Section, IMS
Organizer(s): Armin Schwartzman, Harvard School of Public Health
Chair(s): Yimei Li, St. Jude Children's Research Hospital

10:35 a.m. Functional Analysis of Tracted-Based Diffusion Tensors—◆Hongtu Zhu, The University of North Carolina at Chapel Hill; Martin Styner, The University of North Carolina at Chapel Hill; John H. Gilmore, The University of North Carolina at Chapel Hill

10:55 a.m. Nonlinear Methods for Tube and Curve Fitting of Diffusion Tensor Imaging Data—◆Brian Scott Caffo, Johns Hopkins Bloomberg School of Public Health; Jeff Goldsmith, Johns Hopkins Bloomberg School of Public Health; Ciprian Crainiceanu, The Johns Hopkins University; Daniel Reich, National Institutes of Health

11:15 a.m. Longitudinal Functional Principal Component Analysis with Application to DTI Tractography Data—◆Sonja Greven, Ludwig-Maximilians-University Munich; Ciprian Crainiceanu, The Johns Hopkins University; Brian Scott Caffo, Johns Hopkins Bloomberg School of Public Health; Daniel Reich, National Institutes of Health

11:35 a.m. Determining Differences in Functional Connectivity Using a Combined fMRI/DTI Analysis—◆DuBois Bowman, Emory University; Shuo Chen, Emory University; Gordana Derado, Emory University

11:55 a.m. Disc: Armin Schwartzman, Harvard School of Public Health

12:15 p.m. Floor Discussion

503 CC-220 (West)

■ Applications of Bayesian Methodology to Clinical Trials in Oncology—Topic-Contributed

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR, Section on Bayesian Statistical Science
Organizer(s): Sharon C. Murray, GlaxoSmithKline
Chair(s): Bingming Yi, GlaxoSmithKline

10:35 a.m. Bayesian Dose Escalation Using PK as a Covariate—◆Arun Krishna, Novartis Oncology; Venkat Sethuraman, Novartis Oncology; Lu-May Chiang, Novartis Pharmaceuticals Corporation

10:55 a.m. Bayesian Design for Nonrandomized Phase II Oncology Trials—◆Yanmei Xu, GlaxoSmithKline; Bingming Yi, GlaxoSmithKline

11:15 a.m. A Bayesian Design for a Proof-of-Concept Study Comparing Rituxan in Combination with a New Drug to Rituxan Alone—◆Sharon C. Murray, GlaxoSmithKline; John F. Toso, GlaxoSmithKline; John W. Bauman, GlaxoSmithKline; Steven J. Kathman,

11:35 a.m. A Bayesian Design with the Time-to-Event Endpoint—◆Qiong Wang, GlaxoSmithKline

11:55 a.m. A Hybrid Frequentist-Bayesian Approach to a Pilot Study—◆Nicole Blackman, GlaxoSmithKline

12:15 p.m. Floor Discussion

504 CC-217 (West)

■ ✪ Statistical Methods in Clinical Trial Monitoring—Topic-Contributed

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR
Organizer(s): Wei Zhang, Boehringer Ingelheim Pharmaceuticals, Inc.
Chair(s): Wei Zhang, Boehringer Ingelheim Pharmaceuticals, Inc.

10:35 a.m. On Two-Stage Adaptive Design—◆Gang Li, Johnson & Johnson; Yining Wang, Johnson & Johnson; Weichung J. Shih, University of Medicine and Dentistry of New Jersey

10:55 a.m. An Adaptive Futility Monitoring Method with Time-Varying Conditional Power Boundary—◆Ying Zhang, The University of Iowa; William Clarke, The University of Iowa

11:15 a.m. Flexible Modification of Survival Trials—◆Mikhail P. Salganik, Cytel Inc.; Cyrus R. Mehta, Cytel Inc.

11:35 a.m. Utilizing Interim Information in Clinical Trials: Trial Monitoring and Adaptive Designs—◆Zhenming Shun, sanofi-aventis

11:55 a.m. Disc: Joshua Chen, Merck Research Laboratories

12:15 p.m. Floor Discussion

505 CC-114/115 (West)

■ ✪ Recent Advances in Statistical Learning—Topic-Contributed

Section on Statistical Learning and Data Mining
Organizer(s): Ping Ma, University of Illinois at Urbana-Champaign
Chair(s): Ping Ma, University of Illinois at Urbana-Champaign

10:35 a.m. Adaptive Nonparametric Variable Selection for Survival Data—◆Lisha Chen, Yale University

10:55 a.m. Statistical Strategies for Some Variable Selection Problems in Genetic Studies—◆Wei Sun, The University of North Carolina at Chapel Hill

11:15 a.m. Automatic Smoothing Parameter Selection for Nonparametric Function Estimation with Clustered and Longitudinal Data—Jianhua Huang, Texas A&M University; ◆Ganggang Xu, Texas A&M University

11:35 a.m. Basis Selection from Multiple Libraries—◆Yuedong Wang, University of California, Santa Barbara

11:55 a.m. Variable Selection via Smoothing Spline Adaptive Response Transformation—◆Wenxuan Zhong, University of Illinois

12:15 p.m. Floor Discussion

506 CC-120 (West)

Evidence-Based Education: Improving Teaching and Learning Through Understanding Students' Attitudes—Topic-Contributed

Section on Statistical Education
Organizer(s): Candace Schau, CS Consultants, LLC
Chair(s): Candace Schau, CS Consultants, LLC

10:35 a.m. Understanding Students' Attitudes Toward Statistics: New Perspectives Using Expectancy Value Theory of Motivation and the Survey of Attitudes Toward Statistics—◆Caroline Ann Ramirez, University of California, Davis; Esma Emmioglu, Middle East Technical University; Candace Schau, CS Consultants, LLC

10:55 a.m. The Hidden Attitude: Students' Perceptions of 'Statistics' Prior to Taking the First Course—◆Marjorie E. Bond, Monmouth College; Gloria Lehr, Monmouth College

11:15 a.m. Should I Use Gain Scores to Determine Treatment Effect from a Pretest-Posttest Design?: A Simulation Study—◆Michael Posner, Villanova University; AnneMichele Millar, Mount Saint Vincent University; Philip Yates, California State Polytechnic University, Pomona

11:35 a.m. Instructor Characteristics Associated with Student Appreciation of Statistics—◆Philip Yates, California State Polytechnic University, Pomona; Michael Posner, Villanova University

11:55 a.m. Assessing Changes in Students' Attitudes: The Good, the Bad, and the Ugly—◆AnneMichele Millar, Mount Saint Vincent University; Candace Schau, CS Consultants, LLC

12:15 p.m. Floor Discussion

507 CC-18 (East)

Theory and Application of Mixture Models—Topic-Contributed

SSC
Organizer(s): Pengfei Li, University of Alberta
Chair(s): Yuejiao Fu, York University

10:35 a.m. Density Estimation for Data Measured with General Measurement Errors—◆Jiayang Sun, Case Western Reserve University

10:55 a.m. Testing the Order of Finite Mixture—◆Pengfei Li, University of Alberta; Jiahua Chen, The University of British Columbia

11:15 a.m. Information Geometry of Binomial Mixtures—Paul Marriott, University of Waterloo; ◆Zhiyue Robin Huang, University of Waterloo

11:35 a.m. Quantitating Significance in Finite Mixture Models and Model-Based Clustering—◆Ranjan Maitra, Iowa State University; Volodymyr Melnykov, North Dakota State University

11:55 a.m. Simulating Data to Study Performance of Finite Mixture Modeling and Clustering Algorithms—◆Volodymyr Melnykov, North Dakota State University; Ranjan Maitra, Iowa State University

12:15 p.m. Floor Discussion

508 CC-210 (West)

■ ✪ Issues in Measuring Health Disparities—Topic-Contributed

Health Policy Statistics Section, Biometrics Section, ENAR, Section on Survey Research Methods
Organizer(s): Makram Talih, CUNY School of Public Health at Hunter College
Chair(s): Makram Talih, CUNY School of Public Health at Hunter College

10:35 a.m. Adjusting for Treatment Disparities in Observational Research—◆Marshall M. Joffe, University of Pennsylvania

10:55 a.m. Collider Stratification Bias as a Threat to Validity in U.S.-Based Health Disparities Research—◆Whitney R. Robinson, University of Michigan; Jay Kaufman, McGill University

11:15 a.m. Measuring Health Disparities in a Geographic Context: Spatial Estimates of Local Health Disparities—◆Lance Waller, Emory University; Megan Price, Benetech; Eric Tassone, Google; David C. Wheeler, National Cancer Institute

11:35 a.m. A Symmetric, Entropy-Based, Relative and Quasi-Absolute Measure of Health Disparities: An Example Using Dental Caries in U.S. Children and Adolescents—◆Luisa N. Borrell, Lehman College - CUNY; Makram Talih, CUNY School of Public Health at Hunter College

11:55 a.m. Underlying Properties of Health Disparity Indices—◆Stuart A. Gansky, University of California, San Francisco; Nancy F. Cheng, University of California, San Francisco; Gloria C. Mejia, University of California, San Francisco

10:15 a.m. Floor Discussion

509 CC-10 (East)

Bayesian Semiparametric and Nonparametric Methods—Topic-Contributed

Section on Nonparametric Statistics, Section on Bayesian Statistical Science
Organizer(s): Steven McEachern, The Ohio State University
Chair(s): Steven McEachern, The Ohio State University

10:35 a.m. Local-Mass Preserving Prior Distributions for Nonparametric Bayesian Models—◆Ju Hee Lee, The Ohio State University; Steven MacEachern, The Ohio State University

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10:55 a.m. Baysian Semiparametric Regression Under Competing Risks—◆Xiaolin Fan, Novartis Pharmaceuticals Corporation; Purushottam W. Laud, Medical College of Wisconsin

11:15 a.m. Sparse Data in Meta-Analysis: Parametric and Semiparametric Models and Parameterization Issues—◆Arpita Chatterjee, Northern Illinois University; Sanjib Basu, Northern Illinois University

11:35 a.m. Adjustment for Data-Based Prior Selection—◆William Darnieder, The Ohio State University; Steven MacEachern, The Ohio State University

11:55 a.m. Bayesian Semiparametric Modeling for Host Genetic Correlates of the Immune Response to Anthrax Vaccine—◆Nicholas Pajewski, The University of Alabama at Birmingham

12:15 p.m. Floor Discussion

Topic-Contributed Panel
10:30 a.m.–12:20 p.m.

511 CC-224 (West)

■ ✪ Plans for the First Release of the American Community Survey Five-Year Estimates—Topic-Contributed

Social Statistics Section, Section on Government Statistics
Organizer(s): Susan Schechter, U.S. Census Bureau
Chair(s): Susan Schechter, U.S. Census Bureau

Panelists: ◆Deborah Griffin, U.S. Census Bureau
◆Sharon Stern, U.S. Census Bureau
◆Alfredo Navarro, U.S. Census Bureau
◆Ken Hodges, Nielsen Claritas
◆Peter Lobo, New York City Department of City Planning

12:15 p.m. Floor Discussion

Contributed Sessions
10:30 a.m.–12:20 p.m.

512 CC-121 (West)

■ ✪ Genomics and Mutation Classification—Contributed

Biometrics Section
Chair(s): Robert Scharpf, Johns Hopkins Bloomberg School of Public Health

10:35 a.m. Mutation Rate Estimation and Classification of Driver and Passenger Genes in Cancer—◆Jie Ding, Dana-Farber Cancer Institute; Giovanni Parmigiani, Harvard University; Xiaogang Zhong, The Johns Hopkins University

10:50 a.m. Estimating the Number of One-Step Beneficial Mutations—◆Andrzej Jan Wojtowicz, University of Idaho; Holly A. Wichman, University of Idaho; Paul Joyce, University of Idaho

11:05 a.m. Testing Clonality of Three and More Tumors Using Their Loss of Heterozygosity Profiles—◆Irina Ostrovnaya, Memorial Sloan-Kettering Cancer Center; Colin Begg, Memorial Sloan-Kettering Cancer Center

11:20 a.m. Determining the Genic Contribution to Disease by Evaluating Component SNPs—◆Benjamin Alan Goldstein, University of California, Berkeley; Alan Hubbard, University of California, Berkeley; Lisa Barcellos, University of California, Berkeley

11:35 a.m. Shrinkage Estimator for Robustified MANOVA with Application in Single Feature Polymorphism Detection—◆Xinping Cui, University of California, Riverside; Na You, University of California, Riverside

11:50 a.m. Floor Discussion

513 CC-203 (West)

■ Vaccine Trials—Contributed

Biopharmaceutical Section
Chair(s): Ghideon Ghebregiorgis, FDA

10:35 a.m. Who Should I Vaccinate? Let Me Look into My CART—◆Oliver Bautista, Merck & Co., Inc.

10:50 a.m. Using Proportion of Similar Response (PSR) to Evaluate Correlates of Protection for Vaccine Efficacy—◆Katherine Giacoletti, Merck & Co., Inc.; Joseph Heyse, Merck Research Laboratories

11:05 a.m. Considerations in Vaccine Lot Consistency Trials—◆Xiao Sun, Merck Research Laboratories; Joshua Chen, Merck Research Laboratories

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

11:20 a.m. Statistical Inference Following an Adaptive Design for Case-Driven Efficacy Study—◆Xiaoming Li, Merck Research Laboratories; Ivan S.F. Chan, Merck Research Laboratories; Keaven M.Anderson, Merck Research Laboratories

11:35 a.m. Comparing Proportions of Extremely Rare Events of Uncertain Status with Applications to Vaccine Safety Studies—◆Hongyuan Cao,The University of North Carolina at Chapel Hill; Lisa M. LaVange,The University of North Carolina at Chapel Hill; Joseph Heyse, Merck Research Laboratories; Michael Kosorok,The University of North Carolina at Chapel Hill

11:50 a.m. Statistical Modeling of the Duration of Protection of Postvaccination Antibody—◆Jason Martin, Merck & Co., Inc.; Stephanie Klopfer, Merck & Co., Inc.

12:05 p.m. Calling Hits in a High-Throughput Screening Assay—◆Minya Pu, University of California, San Diego; Karen Messer, University of California, San Diego

514 CC-202 (West)

■ Dose Finding/Dose Response—Contributed

Biopharmaceutical Section, Section on Risk Analysis

Chair(s): Charles David Kincaid, COMSYS Clinical

10:35 a.m. Key Considerations for Simulations to Optimize Dose-Finding Trials—◆Natalie Cheung Hall, Eli Lilly and Company

10:50 a.m. Stopping Rules for Bayesian Dose-Finding Oncology Trials—◆Yanqiong Zhang, sanofi-aventis; Yi He, sanofi-aventis; Guillaume Marchand, sanofi-aventis; Pierre Mancini, sanofi-aventis; Sandrine Micallef, sanofi-aventis

11:05 a.m. A Statistical Design for Investigating Skin Diffusion-Based Dose Response in Humans—◆Jihao Zhou, Allergan Pharmaceuticals, Inc.; Thomas Lin, Allergan Pharmaceuticals, Inc.; Susan Guo,Allergan Pharmaceuticals, Inc.; Barbara Scholz,Allergan Pharmaceuticals, Inc.

11:20 a.m. Comparison of Meta-Analytic Methods That Combine Direct and Indirect Evidence to Assess Dose Relationship—Qi Zhang, Eli Lilly and Company; Mary Nilsson, Eli Lilly and Company; Yoko Tanaka, Eli Lilly and Company; Brenda Crowe, Eli Lilly and Company; ◆Xiaobi Huang, University of Michigan

11:35 a.m. A Dose-Finding Method in Joint Modeling of Efficacy and Safety: An Extension of the MCP-Mod Method—◆Aiyang Tao, Novartis; Yong Lin, University of Medicine and Dentistry of New Jersey; Jose Carlos Pinheiro, Johnson & Johnson; Weichung J. Shih, University of Medicine and Dentistry of New Jersey

11:50 a.m. Dose-Escalation Approaches for Two Agents in Early-Phase Oncology Studies—Yevgen Tymofyeyev, Merck & Co., Inc.; ◆Christine K. Gause, Merck Research Laboratories; Keaven M.Anderson, Merck Research Laboratories

12:05 p.m. A Closed Testing Procedure Based on Ordered Alternatives in Dose-Response Studies—◆Girish Aras, Amgen Inc.; Juan Li,Amgen Inc.

515 CC-122 (West)

■ Genomics—Contributed

Biopharmaceutical Section

Chair(s): Fraser Smith, FDA/CDER

10:35 a.m. Robust Method for Correcting Population Stratification in Genomewide Association Studies—◆Li Liu, sanofi-aventis; Donghui Zhang, sanofi-aventis

10:50 a.m. Statistical Power for Genomewide Association Analysis of Case-Control Studies on Rare Serious Adverse Drug Reactions—◆Wencan Zhang,Takeda Global Research & Development Center, Inc.; Tatsuya Ando, Takeda Pharmaceutical Company Limited; Robert Dillard,Takeda Global Research & Development Center, Inc.; Leonardo Sahelijo,Takeda Global Research & Development Center, Inc.; Shyh-yuh Liou,Takeda Pharmaceutical Company Limited; Hiroyoshi Toyoshiba, Takeda Pharmaceutical Company Limited

11:05 a.m. A Statistical Method for Controlling False Discoveries and False Nondiscoveries in Genome-Scale RNAi Screens—◆Xiaohua Douglas Zhang, Merck Research Laboratories

11:20 a.m. MicroRNA-Guided Gene Classifier in Colorectal Cancer—◆Dung-Tsa Chen, Moffitt Cancer Center & Research Institute; Timothy Yeatman, Moffitt Cancer Center & Research Institute; William Fulp, Moffitt Cancer Center & Research Institute; Mike Gruidl, Moffitt Cancer Center & Research Institute

11:35 a.m. Statistical Aspect of Design and Normalization of Customized Affymetrix Arrays—◆Shibing Deng, Pfizer Inc.

11:50 a.m. Locate Complex Disease Loci by Investigating Gene and Environment Interaction for Genomewide Association Studies—◆Jin Zheng, Eli Lilly and Company

12:05 p.m. Floor Discussion

516 CC-216 (West)

✪ Modeling Binary Outcomes—Contributed

Business and Economic Statistics Section

Chair(s): Dalia A. Ghanem, University of California, San Diego

10:35 a.m. Forecasting Corporate Bankruptcy: International Evidence—◆Shaonan Tian, University of Cincinnati; Yan Yu, University of Cincinnati

10:50 a.m. What Does Realized Volatility Tell Us About Macroeconomic Fluctuations?—◆Zeynep Senyuz, University of New Hampshire; Marcelle Chauvet, University of California, Riverside; Emre Yoldas, Bentley University

11:05 a.m. Optimal Threshold from AROC Curve—Chong Sun Hong, SKK University; ◆Jin Soo Choi, SKK University; Hee Jeong Lee, SKK University

11:20 a.m. Optimal Threshold from a Mixture of Two Distributions—Chong Sun Hong, SKK University; ◆Jae Seon Joo, KWDI

11:35 a.m. The Effect of Seasonal Adjustment on Turning Points Detection—◆Gaetana Montana, EUROSTAT; Gian Luigi Mazzi, EUROSTAT; Monica Billio, Università di Venezia

11:50 a.m. Floor Discussion

517 CC-221 (West)

■ ✪ Extreme Values and Heavy Trials—Contributed

Business and Economic Statistics Section

Chair(s): Jonathan B. Hill, The University of North Carolina at Chapel Hill

10:35 a.m. Intensity-Based Estimation of Extreme Loss Event Probability and Value-at-Risk—◆Kam Hamidieh, Rice University; Stilian Stoev, University of Michigan; George Michailidis, University of Michigan

10:50 a.m. Almost Unbiased Maximum Likelihood Estimation for the Generalized Pareto Distribtion and Value at Risk—◆David E. Giles, University of Victoria; Hui Feng, King's College/The University of Western Ontario

11:05 a.m. Extreme-Value Distributions as g-and-h Distributions: An Empirical View—◆David Hoaglin, Abt Bio-Pharma Solutions, Inc.

11:20 a.m. Tail Order and Intermediate Tail Dependence of Multivariate Copulas—◆Lei Hua, The University of British Columbia; Harry Joe, The University of British Columbia

11:35 a.m. Heavy-Tailed Behavior of High-Frequency Foreign Exchange Changes—◆Ece Oral, Central Bank of the Republic of Turkey

11:50 a.m. Modeling the Relationship Between the Components of Executive Compensation: A Copula Approach—◆Padma Rao Sahib, University of Groningen; Ruud Koning, University of Groningen; Harmen De Weerd, University of Groningen

12:05 p.m. Some Pareto Mixtured Distributions—◆Humayun Kiser, Jahangirnagar University; Mian Arif Shams Adnan, Jahangirnagar University

518 CC-213 (West)

■ ✪ ENAR General Methodology—Contributed

ENAR

Chair(s): Yong Seok Park, University of Michigan

10:35 a.m. An Adaptive Nonparametric Method for the Bioassay and Benchmark Analysis—◆Lizhen Lin, The University of Arizona; Rabi Bhattacharya, The University of Arizona

10:50 a.m. Statistical Inference in Factor Analysis for High-Dimension, Low-Sample-Size Data—◆Miguel Marino, Harvard University/Dana-Farber Cancer Institute; Yi Li, Harvard University/Dana-Farber Cancer Institute

11:05 a.m. How Robust Is the Proportional Odds Model?—◆Scott William Miller, CDRH/FDA; Sharon D. Yeatts, Medical University of South Carolina; Yuko Y. Palesch, Medical University of South Carolina

11:20 a.m. Empirical Imputation: A New Imputation Method Model—◆Yijie Xue, The University of Georgia; Nicole Lazar, The University of Georgia

11:35 a.m. Evaluating Statistical Hypotheses Using Nonidentifiable Estimating Functions—◆Guanqun Cao, Michigan State University; David Todem, Michigan State University; Lijian Yang, Michigan State University; Jason Peter Fine, The University of North Carolina at Chapel Hill

11:50 a.m. Properties of the Double Kolmogorov-Smirnov Test—◆Leah Jager, United States Naval Academy

12:05 p.m. Nonlinear PCA Based on Data Transformation—◆Mehdi Maadoliat, Texas A&M University

519 CC-116 (West)

■ ✪ High-Dimensional Data Analysis and Variable Selection—Contributed

IMS

Chair(s): Mu Zhu, University of Waterloo

10:35 a.m. Optimal Estimation of Multidimensional Normal Means with Unknown Variances—◆Xu Han, Princeton University; Lawrence D. Brown, University of Pennsylvania

10:50 a.m. Variable Selection for Gene Expression Data via Hilbert-Schmidt Independence Criterion—◆Ali Ghodsi, University of Waterloo

11:05 a.m. Regularized Variance Estimation and Variance Stabilization of High-Dimensional Data—◆Jean-Eudes J. Dazard, Case Western Reserve University; J. Sunil Rao, Case Western Reserve University

11:20 a.m. Empirical Bayes In-Season Prediction of Baseball Batting Averages—◆Wenhua Jiang, National Heart, Lung, and Blood Institute; Cun-Hui Zhang, Rutgers University

11:35 a.m. An Efficient Method of Estimating the Bayesian Classifier in Signal Detection Tasks Involving Complex High-Dimensional Data—◆Subok Park, FDA; Eric Clarkson, The University of Arizona

11:50 a.m. Robust Variable Selection in Discriminant Analysis—◆Stefan Van Aelst, Ghent University; Gert Willems, Ghent University

12:05 p.m. Floor Discussion

520 CC-14 (East)

Bayesian Spatial and Temporal Modeling—Contributed

Section on Bayesian Statistical Science, ENAR, Section on Statistics and the Environment

Chair(s): Mani Lakshminarayanan, Merck & Co., Inc.

10:35 a.m. Gravity Models for Studying the Spatiotemporal Dynamics of an Infectious Disease—◆Murali Haran, Penn State; Roman Jandarov, Penn State; Ottar N. Bjornstad, Penn State

10:50 a.m. Building Time Series into Hierarchical Bayesian Models with Applications in Baseball Fielding—◆James Martin Piette, The Wharton School, University of Pennsylvania; Shane Jensen, The Wharton School, University of Pennsylvania

11:05 a.m. A Bayesian Hierarchical Spatial Approach for Constructing Disease Risk Maps at a Finer Level Than Is Provided in Publicly Available Data—◆Fu-Chi Hsieh, Yale University; Theodore R. Holford, Yale University

11:20 a.m. Online Detection of Outliers and Structural Breaks—◆Giovanni Petris, University of Arkansas

11:35 a.m. Spatio-Temporal Modeling of Sudden Infant Death Syndrome Data—◆Lili Zhuang, The Ohio State University; Noel A. Cressie, The Ohio State University

11:50 a.m. Hierarchical Bayes Models for Daily Rainfall at Multiple Sites—◆Kenneth Shirley, AT&T Labs

12:05 p.m. Bayesian Mixtures of Autoregressive Models—◆Ori Rosn, The University of Texas at El Paso; Sally Wood, Melbourne Business School; Robert Kohn, University of New South Wales

521 CC-15 (East)

Topics in Bayesian Statistics—Contributed

Section on Bayesian Statistical Science

Chair(s): Margaret Stedman, Brigham and Women's Hospital

10:35 a.m. Bayesian ROC Curve Estimation Under Binormality with the Partial Gold Standard—◆Jiezhun Gu, Duke Clinical Research Institute; Subhashis Ghosal, North Carolina State University

10:50 a.m. On the Compatibility of Conditional Normal Distributions—◆Thomas Jyh-Ming Jiang, National Chengchi University; Kun-Lin Kuo, Academia Sinica; Chwan-Chin Song, National Chengchi University; Lin-Yang Cheng, National Chengchi University

11:05 a.m. Some Interesting Properties of the Liu Estimator—◆Marvin Haskel Jack Gruber, Rochester Institute of Technology

11:20 a.m. A Bayesian Approach to Joint Mixed Effects Models with a Skew-Normal Distribution and Measurement Errors in Covariates—◆Yangxin Huang, University of South Florida

11:35 a.m. Empirical Bayes Confidence Intervals for Selected Parameters for a Large Number of Normal Populations with Unequal but Estimable Means and Variances—◆Zhigen Zhao, Temple University; Gene (J.T.) Hwang, Cornell University

11:50 a.m. Bayesian Semiparametric Models for Testing Single and Multiple Genetic Pathway Effects in Prostate Cancer—◆Sounak Chakraborty, University of Missouri-Columbia

12:05 p.m. Floor Discussion

522 CC-207 (West)

■ ✪ Computer Experiments, Design, and Analysis—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity

Chair(s): Robert G. Easterling, Itinerant visiting professor

10:35 a.m. Sequential Experiment Design for Emulator and Predictive Maturity—◆Brian Williams, Los Alamos National Laboratory; Jason Loeppky, The University of British Columbia; Leslie Moore, Los Alamos National Laboratory

10:50 a.m. Sequential Design of Computer Experiments for Multiobjective Optimization—◆Joshua Svenson, The Ohio State University; Thomas J. Santner, The Ohio State University

11:05 a.m. Comparison of Sequential Designs of Computer Experiments in High Dimensions—◆Ana Kupresanin, Lawrence Livermore National Laboratory; Gardar Johannesson, Lawrence Livermore National Laboratory

11:20 a.m. Post-Processing of Spatio-Temporal Physical Model Output—◆Hongfei Li, IBM T.J. Watson Research Center; Fei Liu, IBM T.J. Watson Research Center; Yasuo Amemiya, IBM T.J. Watson Research Center

11:35 a.m. Using Gaussian Stochastic Processes to Improve Fourier Amplitude Sensitivity Test—◆Amy Hoeksema, Iowa State University; Max Morris, Iowa State University

11:50 a.m. Robust Probe for the Quantum Pauli Channel—◆Michael Frey, Bucknell University; Jeffrey Graham, Susquehanna University; Lucas Mentch, Bucknell University; Amy Miller, Muskingum University

12:05 p.m. Floor Discussion

523 CC-111/112 (West)

Time Series—Contributed

Section on Statistical Computing

Chair(s): Ana-Maria Staicu, North Carolina State University

10:35 a.m. Forecasting Fuzzy Time Series with Different Degrees of Membership by Neural Networks—Memmedaga Memmedli, Anadolu University; ◆Ozer Ozdemir, Anadolu University

10:50 a.m. Multivariate t Linear Mixed Models with AR(p) Errors for Multiple Longitudinal Data—◆Wan-Lun Wang, National Central University, Taiwan; Tsai-Hung Fan, National Central University, Taiwan

11:05 a.m. Adaptive Fitting of Linear Mixed Effects Models with Correlated Random Effects—◆Guangxiang George Zhang, State University of New York at Stony Brook; John J. Chen, State University of New York at Stony Brook

11:20 a.m. Maximum Entropy Spectral Analysis to Time Series with Missing Value—Aladdin Shamilov, Anadolu University; ◆Cigdem Giriftinoglu, Anadolu University

11:35 a.m. A Quantile Function Model for Market Returns—◆Yuzhi Cai, University of Plymouth

11:50 p.m. SAMC Particle Filter for Nonlinear State Space Models—◆Mingqi Wu, Texas A&M University; Faming Liang, Texas A&M University

524 CC-117 (West)

Statistical Learning in Biology—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Martin Lindquist, Columbia University

10:35 a.m. Outcome-Informed Clustering of Gene Expression Profiles—◆Jessie Jann Hsu, Harvard University; David Schoenfeld, Harvard University; Dianne Finkelstein, Harvard University

10:50 a.m. Robust Dynamic Variable Selection for SNP Genotype Classification—◆Mohua Podder, The University of British Columbia; William J. Welch, The University of British Columbia; Ruben H. Zamar, The University of British Columbia; Scott J. Tebbutt, Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research

11:05 a.m. The Impact of Partial Information on Network Inference and Characterization—◆Natallia V. Katenka, Boston University; Eric Kolaczyk, Boston University

11:20 a.m. Logit-Based Neutral Zone Classification Algorithm with Application to Microbial Community Profiling—◆Rebecca Le, University of California, Riverside; Daniel R. Jeske, University of California, Riverside

11:35 a.m. Detection and Genotyping of Copy Number Variations—◆Yunting Sun, Stanford University

11:50 a.m. Multiregional Trials Using Bayesian Statistical Approach—◆Kyoungah See, Eli Lilly and Company; Robert Noble, GSK

12:05 p.m. Floor Discussion

525 CC-16 (East)

■ Forecasting in Space and Time—Contributed

Section on Statistics and the Environment
Chair(s): David Kessler, The University of North Carolina at Chapel Hill

10:35 a.m. A Hierarchical Bias Model for Improvement of 80m Wind Speed Ensemble Forecasts—◆Lisa Bramer, Iowa State University; Petrutza Caragea, Iowa State University; Mark Kaiser, Iowa State University

10:50 a.m. Analysis of the Probability of Zero Rain Using an Alternating Renewal Process Approach—◆James Edmund Travis, University of Maryland Baltimore County; Anindya Roy, University of Maryland Baltimore County

11:05 a.m. Assessing Variation in the Spatio-Temporal Dynamics of Intermountain Snow Water Storage—◆James B. Odei, Utah State University; Mevin B. Hooten, Utah State University

11:20 a.m. Wavelet Analysis in Spatial Interpolation of High Frequency Monitoring Data—Michael Stein, The University of Chicago; ◆Xiaohui Chang, The University of Chicago

11:35 a.m. Probabilistic Wind Vector Forecasting Using Ensembles and Bayesian Model Averaging—◆J. McLean Sloughter, Seattle University; Adrian E. Raftery, University of Washington; Tilmann Gneiting, Universitat Heidelberg

11:50 a.m. Online Forecasting and Prediction of Spacio-Temporal Processes with Dynamic Covariance Estimation—◆Dave Zes, University of California, Los Angeles

12:05 p.m. Floor Discussion

526 CC-17 (East)

■ Ecological Models for Aquatic Populations—Contributed

Section on Statistics and the Environment
Chair(s): Joel Howard Reynolds, U.S. Fish and Wildlife Service

10:35 a.m. A Nonparametric Lower Bound for the Number of Species Shared by Multiple Communities—◆Hung-Yu Pan, National Chia-Yi University

10:50 a.m. Bayesian Models on Species Richness of Fish in the Gulf of Maine—◆Xia Wang, National Institute of Statistical Sciences; Ming-Hui Chen, University of Connecticut; Dipak K. Dey, University of Connecticut; Chiu-Yen Kuo, University of Connecticut

11:05 a.m. Estimating Modern Marine Species Extinction Rates from Ecological Survey Data—◆Woollcott Smith, Temple University; Andrew Solow, Woods Hole Oceanographic Institution

11:20 a.m. A Shark Habitat Model with Spatial and Temporal Dependencies—◆Daniel Gladish, University of Missouri; Mark Wildhaber, U.S. Geological Survey; Christopher Wikle, University of Missouri; Scott Holan, University of Missouri; John Froeschke, Harte Research Institute for Gulf of Mexico Studies; Gregory Stunz, Harte Research Institute for Gulf of Mexico Studies

11:35 a.m. Bayesian Estimation of Humpback Whale Population Abundance and Movement Patterns in Northern Southeast Alaska—◆Albert Noble Hendrix, R2 Resource Consultants, Inc.

11:50 a.m. Spatio-Temporal Modeling of the Lower Trophic Ocean Ecosystem—◆William Leeds, University of Missouri-Columbia; Christopher Wikle, University of Missouri

12:05 p.m. Reduced-Rank Stochastic Regression with a Sparse Singular-Value-Decomposition: Modeling Larval Drift Effects on Cod Population Dynamics as a Case Study—◆Kun Chen, The University of Iowa; Kung-Sik Chan, The University of Iowa; Nils Christian Stenseth, Centre for Ecological and Evolutionary Synthesis

527 CC-211 (West)

Variance Estimation in Complex Sample Designs—Contributed

Section on Survey Research Methods

Chair(s): Brad Edwards, Westat

10:35 a.m. Horvitz-Thompson Variance Weights: Exact vs. Approximate—◆James R. Chromy, RTI International

10:50 a.m. Further Simulation Results on the Distribution of Some Survey Variance Estimators—◆Elizabeth T. Huang, U.S. Census Bureau; William R. Bell, U.S. Census Bureau

11:05 a.m. Evaluation of Methods for Second-Stage Variance Estimation for the Drug Abuse Warning Network Survey—◆Rong Cai, Substance Abuse and Mental Health Services Administration; Kathy Poneleit, Substance Abuse and Mental Health Services Administration

11:20 a.m. Variance Estimation for a Small Number of PSUs—◆Hyunshik Lee, Westat

11:35 a.m. Alternative Variance Estimators for a Measurement Error Model—◆Emily Berg, Iowa State University; Wayne A. Fuller, Iowa State University

11:50 a.m. Simulation of Incorporating the Variance from Missing Data in Census Coverage Measurement (CCM) Variance Estimates—◆Richard Griffin, U.S. Census Bureau

12:05 p.m. Floor Discussion

528 CC-119 (West)

■ ✪ Biostatistics in the Health Sciences: Improving Literacy, Building Careers—Contributed

Section on Teaching of Statistics in the Health Sciences, Section on Statistics and the Environment

Chair(s): Jodi Lapidus, Oregon Health & Science University

10:35 a.m. Building the Biostatistics Pipeline—◆Vanessa Xanthakis, Boston University School of Public Health; Allison Cox, Upward Bound Math Science, Boston University; Carlee Moser, Boston University School of Public Health; Audrey Hendricks, Boston University School of Public Health; Alisa Manning, Boston University School of Public Health; Jacqueline Milton, Boston University School of Public Health; Rachel Hunter-Merrill, Boston University School of Public Health; Sean Lacey, Boston University School of Public Health; Robin Young, Boston University; Josee Dupuis, Boston University School of Public Health; Lisa M. Sullivan, Boston University School of Public Health

10:50 a.m. Misuse of Statistical Terms: What Should We Do About It?—◆Charlie Goldsmith, McMaster University

11:05 a.m. Statistical Concepts Busy Clinicians Need to Know—◆Darcy Vavrek, Western States Chiropractic College; Gordon Gyatt, McMaster University; Peter Wyer, Columbia University

11:20 a.m. QIS in Teaching an Elementary Class in Statistical Literacy to Nursing Majors—◆Robert Dean Curley, University of Central Oklahoma

11:35 a.m. Use of Case Studies in a Graduate Course in Applied Regression—◆Scott Emerson, University of Washington

11:50 a.m. Presentation of Advanced Statistical Modeling Topics in the Graduate Dental Educational Setting—◆Deborah V. Dawson, The University of Iowa College of Dentistry

12:05 p.m. Teaching Statistics in Master of Public Health Programs: The Opportunities and Challenges of an Online Format—◆Suhwon Lee, University of Missouri

529 CC-215 (West)

■ ✪ Statistical Issues in Population Studies—Contributed

Social Statistics Section, Section on Government Statistics

Chair(s): Natalya Verbitsky-Savitz, Mathematica Policy Research, Inc.

10:35 a.m. Intersecting Variance Function Regression and Hierarchical Age-Period-Cohort Analysis, with Applications to the Study of Self-Reported Health—◆Kenneth C. Land, Duke University; Hui Zheng, Duke University

10:50 a.m. Data-Driven Models for Dynamic Networks in Changing Populations—◆Pavel N. Krivitsky, Carnegie Mellon University; Mark Stephen Handcock, University of California, Los Angeles; Martina Morris, University of Washington

11:05 a.m. On the Distributions of the Numbers of Sexual Partners Between U.S. Men and Women—◆Hee-Choon Shin, NORC

11:20 a.m. Drawing Statistical Inferences from International Census Data—◆Lara L. Cleveland, University of Minnesota; Michael Davern, NORC; Steven Ruggles, University of Minnesota/MN Population Center

11:35 a.m. Components and Applications of the Three Phases of Census Capture—◆Douglas Olson, U.S. Census Bureau

11:50 a.m. Estimating Uncertainty Bounds for Complex Demographic Models: A Case Study of Estimates of the Unauthorized Population in the United States—◆Dean Judson, Office of Immigration Statistics; Derekh Cornwell, Office of Immigration Statistics

12:05 p.m. Function Follows Form: Effects of Response Format on Self-Reported Individual and Household Disability—◆Amy E. Falcone, ICF International; Randall K. Thomas, ICF International

530 CC-204 (West)

Topics on Time Series and Longitudinal Measurements—Contributed

Section on Statistics in Epidemiology

Chair(s): Kaushik Ghosh, University of Nevada at Las Vegas

10:35 a.m. Empirical Evaluation of Methods for Predicting Cancer Incidence and Mortality in Canada—◆Michael Otterstatter, Public Health Agency of Canada; Lin Xie, Public Health Agency of Canada

10:50 a.m. Taking Serial Correlation Seriously: An Illustration from an Assessment of Temporal Trend of Racial Disparity in Chlamydia Prevalence Among Black and White Women—◆Lin H. Tian, CDC; Catherine L. Satterwhite, CDC; Jim R. Braxton, CDC; Samuel L. Groseclose, CDC

11:05 a.m. Adjustment of Regional Differences Using Generalized Additive Mixed Model to Estimate Health Effect of PM2.5—◆Ayano Takeuchi, The University of Tokyo; Yutaka Matsuyama, The University of Tokyo; Hiroshi Nitta, National Institute for Environmental Studies; Masaji Ono, National Institute for Environmental Studies

11:20 a.m. Semiparametric Adjustment for Temporal Confounding of Acute Air Pollution Effects in Cohort Studies—◆Adam A. Szpiro, University of Washington; Lianne Sheppard, University of Washington; Sara D. Adar, University of Michigan School of Public Health

11:35 a.m. Analysis of Longitudinal Data with Time-Varying Dependence on Observation Times—◆Na Cai, North Carolina State University; Wenbin Lu, North Carolina State University; Hao Helen Zhang, North Carolina State University

11:50 a.m. Semiparametric Functional Mapping for Irregular Longitudinal Data Using Penalized Spline and MCMC—◆Kiranmoy Das, Penn State

12:05 p.m. Disease Surveillance with Multiple Endpoints—◆Yingqi Zhao, The University of North Carolina at Chapel Hill; Donglin Zeng, The University of North Carolina at Chapel Hill; Amy H. Herring, The University of North Carolina at Chapel Hill; David Richardson, The University of North Carolina at Chapel Hill; Michael Kosorok, The University of North Carolina at Chapel Hill

Topic-Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

531 CC-Exhibit Hall A (West)

Topic-Contributed Oral Poster Presentations: Section on Statistical Learning and Data Mining—Topic-Contributed

Section on Statistical Learning and Data Mining

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

01 Measuring Classifier Performance: A Penalty/Profit Perspective—◆Kati Lentz, The College of New Jersey; Robert Stine, University of Pennsylvania; Chamont Wang, The College of New Jersey

02 Experts vs. Equations: A Case Study in the Prediction of MLB Games—◆Chamont Wang, The College of New Jersey; Danielle Zanghi, The College of New Jersey

03 Experts vs. Equations: A Case Study in the Prediction of NBA Games—◆Michele Meisner, The College of New Jersey; Chamont Wang, The College of New Jersey; Danielle Zanghi, The College of New Jersey; James Fitzpatrick, The College of New Jersey

Contributed Poster Presentations 10:30 a.m.–12:20 p.m.

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Contributed Oral Poster Presentations: Section on Statistical Learning and Data Mining—Contributed

Section on Statistical Learning and Data Mining

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

04 Properties of Linear Model Selection—◆Changjiang Xu, The University of Western Ontario; A. Ian McLeod, The University of Western Ontario

05 An Example of Performance Analysis for Network Community Detection—◆Luke Fostvedt, Iowa State University; Dan Nordman, Iowa State University; Alyson Wilson, Iowa State University

06 Comparison of Logistic Regression and Support Vector Machine Models to Predict Diabetes—◆Wei Yu, CDC; Tiebin Liu, CDC; Rodolfo Valdez, CDC; Marta Gwinn, CDC; Nicole Dowling, CDC; Muin J. Khoury, CDC

07 Are There Latent Decision Rules in Expert Occupational Exposure Assessments?—◆David C. Wheeler, National Cancer Institute; Kai Yu, National Cancer Institute; Melissa Friesen, National Cancer Institute

08 An Examination of Reliability of Text Mining—◆Chong Ho Yu, Arizona State University; Angel Jannasch-Pennell, Arizona State University; Samuel DiGangi, Arizona State University

09 Using a Selective Robust Bayes Classifier to Predict Survival from Sudden Cardiac Arrest in a Study with Missing Attributes—◆Subhashish Chakravarty, Cedars-Sinai Medical Center; Kyndaron Reinier, Cedars-Sinai Medical Center; Carmen Teodorescu, Cedars-Sinai Medical Center; Audrey Evanado, Cedars-Sinai Medical Center; Ronald Mariani, Cedars-Sinai Medical Center; Jo Navarro, Cedars-Sinai Medical Center; Karen Gunson, Oregon Health & Science University; Jonathan Jui, Oregon Health & Science University; Sumeet Chugh, Cedars-Sinai Medical Center

10 Risk Stratification Using Survival and Microarray Gene Expression Data—◆Pingping Qu, Cancer Research and Biostatistics (CRAB); John D. Shaughnessy Jr., University of Arkansas for Medical Sciences; Michael LeBlanc, Fred Hutchinson Cancer Research Center; Jeff Haessler, Cancer Research and Biostatistics (CRAB); Bart Barlogie, University of Arkansas for Medical Sciences; John Crowley, Cancer Research and Biostatistics (CRAB)

11 Adaboost Classification of Ranking Data—◆Fang Qi, The University of Hong Kong; L.H. Yu, The University of Hong Kong

12 Association Pattern Discovery via a Theme Dictionary Model—◆Ke Deng, Harvard University; Jun Liu, Harvard University

13 Statistical Analysis of Bipartite and Multipartite Ranking by Convex Risk Minimization—◆Kazuki Uematsu, The Ohio State University; Yoonkyung Lee, The Ohio State University

14 Fast Euclidean Embedding of Ordinal Nearest Neighbor Graphs—◆Brent Shannon Castle, Indiana University; Faming Liang, Texas A&M University; Michael Trosset, Indiana University

15 Block-Regulized Regression for Identifying CNV in Gene Expression Data—◆Yanming Li, University of Michigan

16 Assessing the Impact of Tumor Heterogeneity on Powering Microarray Signature Discovery—◆Timothy Scott Davison, Almac Diagnostics; Sian Dibben, Almac Diagnostics; Janet Taylor, Almac Diagnostics; Robert J. Holt, Almac Diagnostics; Paul J. Kelly, Belfast Health and Social Care Trust; Ian Paul, Queen's University Belfast; Peter Kerr, Almac Diagnostics; Dean A. Fennell, Queen's University Belfast; Jacqueline A. James, Queen's University Belfast; Richard D. Kennedy, Almac Diagnostics

17 Comparison of the Efficiency of Classification Methods—◆Rui Wang, The Ohio State University; Yoonkyung Lee, The Ohio State University

18 Group and Within-Group Variable Selection via Convex Penalties—◆Yun Li, University of Michigan

19 Finding Optimal Pooling and Shrinkage Parameters in Regularized Discriminant Analysis—◆John Ramey, Baylor University

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Contributed Oral Poster Presentations: Section for Statistical Programmers and Analysts—Contributed

Section for Statistical Programmers and Analysts

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

20 From Cross-Sectional to Cohort Data: The Creation of the Act 1220 Evaluation Longitudinal Databases—◆Melanie E. Goodell, University of Arkansas for Medical Sciences; Zoran Bursac, University of Arkansas for Medical Sciences; Clinton Heath Gauss, University of Arkansas for Medical Sciences; Martha M. Phillips, University of Arkansas for Medical Sciences

21 Gerontologic Research Algorithms and Statistical Programs: GRASP—◆Heather Gwynn Allore, Yale University

22 In Evaluating Measures Using Rasch Analysis: Comparison of the Rating Scale Model and the Partial Credit Model—◆Man Hung, The University of Utah

23 Bias Correction for Rare Events in Self-Controlled Case Series Design of Vaccine Safety—◆Chan Zeng, Kaiser Permanente Colorado; Jason M. Glanz, Kaiser Permanente Colorado; Sophia R. Newcomer, Kaiser Permanente Colorado; Stanley Xu, Kaiser Permanente Colorado

24 SAS Macro for Multiple Simple Logistic Regression Analyses with Application to Predictors of New Onset Diabetes After Renal Transplant (NODAT)—◆Brie N. Noble, Mayo Clinic; Amylou C. Dueck, Mayo Clinic; Joseph G. Hentz, Mayo Clinic; Qing Wu, Mayo Clinic; Harini A. Chakkera, Mayo Clinic

25 A Bayesian Approach for Linking Patient Medical Records in a Community Health Care Setting—Brandon Barber, Valence Health; ◆Bart Phillips, Valence Health

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Contributed Oral Poster Presentations: Section on Statistical Computing—Contributed

Section on Statistical Computing
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

26 Estimation for Time-to-Event Data in Multistate Models Using R:The msSurv Package—◆Amanda Nicole Ferguson, University of Louisville; Guy Brock, University of Louisville; Somnath Datta, University of Louisville

27 Maximum Likelihood Estimation with Binary Data Regression Models: Small-Sample and Large-Sample Features—◆Roland C. Deutsch,The University of North Carolina at Greensboro; John M. Grego, University of South Carolina; Brian Habing, University of South Carolina; Walter W. Piegorsch,The University of Arizona

28 Calculation of Sample Size for Testing the Performance of Disease Risk Prediction Models from Survival Analysis Based on Harrell's C Discrimination Index—◆Ching-Yu Huang, National Health Research Institutes,Taiwan; Hsing-Yi Chang, National Health Research Institutes, Taiwan; Wen-ling Liu, National Health Research Institutes, Taiwan

29 Improved Portmanteau Diagnostic Test for Multivariate Time Series Using Monte-Carlo Techniques—◆Esam Mahdi,The University of Western Ontario; A. Ian McLeod, The University of Western Ontario

30 gsDesign Explorer: Easy-to-Use Open Source GUI- and R-Based Group Sequential Design Software—Keaven M. Anderson, Merck Research Laboratories; ◆William Constantine, REvolution Computing; Jason B. Clark, Merck Research Laboratories

31 Number of Replications Required in Simulation Studies: A Synthesis of Four Studies—◆Daniel Mundfrom, New Mexico State University; Jay R. Schaffer, University of Northern Colorado; Myoung-Jin Kim, Illinois State University; Dale Shaw, University of Northern Colorado; Ampai Thongteeraparp, Kasetsart University; Chana Preecha,Thepsatri Rajabhat University; Pornsin Supawan, Rajabhat Rajanagarindra University

32 An Alternating Estimation Approach to Combine Optimal Scaling and SEM—◆Patrick Mair,WU Vienna University of Economics and Business; Jan De Leeuw, University of California, Los Angeles; Peter M. Bentler, University of California, Los Angeles

33 Comparison of Estimation Methods for Logistic Regression Models with Multiple Random Effects Between Statistical Packages—◆Yoonsang Kim, Institute of Health Research and Policy; Young-Ku Choi, Institute of Health Research and Policy; Sherry Emery, Institute of Health Research and Policy

34 Efficiency of the Search Algorithms—◆Morteza Marzjarani, Saginaw Valley State University; Stephen Bauer, Saginaw Valley State University; Evan Schultz, Saginaw Valley State University

35 Estimating the Accuracy of a Diagnostic Test with Verification Bias When the Number of Observed False Negatives Is Small—◆Li Deng, New England College of Optometry

36 Novel Methodologies for Gene Network Interaction Analysis—◆Sang-Yun Oh, Stanford University; Bala Rajaratnam, Stanford University

37 Clustering of Tandem Mass Spectrometry Data—◆Xiaoyu Yang, National Institute of Standards and Technology; Pedatsur Neta, National Institute of Standards and Technology; Stephen Stein, National Institute of Standards and Technology

38 Model Selection for Nonnested Linear Mixed Models—◆Che Smith,The University of North Carolina at Chapel Hill; Lloyd Edwards,The University of North Carolina at Chapel Hill

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Contributed Oral Poster Presentations: Section on Statistical Graphics—Contributed

Section on Statistical Graphics
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

39 Graphical Display of the Multivariate Analysis of Metagenomes—◆Barbara Ann Bailey, San Diego State University

40 Methods and Diagnostic Tools for the Analysis of GC-MS Metabolomics Data—◆Tengfei Yin, Iowa State University; Michael Lawrence, Genentech; Marie Vendettuoli, Iowa State University; Suh-Yeon Choi, Iowa State University; Dianne Cook, Iowa State University; Heike Hofmann, Iowa State University

41 Visualizing Data Patterns with Micromaps—◆Daniel B. Carr, George Mason University; Linda Williams Pickle, StatNet Consulting LLC

42 Visualizing Resampling Statistics for Pharmacokinetic Data Modeling—◆Xiaoyong Sun, Iowa State University; Kai Wu, Novartis; Dianne Cook, Iowa State University

43 Incorporating Data on Residential History for Disease Mapping—◆Caroline Jeffery, Harvard School of Public Health; Al Ozonoff, Boston University School of Public Health; Justin Manjourides, Harvard School of Public Health; Marcello Pagano, Harvard School of Public Health

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Contributed Oral Poster Presentations: Section on Bayesian Statistical Science—Contributed

Section on Bayesian Statistical Science
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

44 A Study of Expansions of Posterior Distributions—◆Chiu-Hsing Weng, National Chengchi University

45 Application of Bayesian Methods to Estimate Risks of Exposure in Occupational Epidemiology Studies—◆Li Xing, The University of British Columbia

46 Choosing Bayes Priors for Estimating Values Near Zero: A Case Study with the Beta-Binomial and the Gamma-Poisson Distributions—◆Marcela Alfaro, Universidad de Costa Rica

47 Application of Model Selection for the Weight of BC Pink Salmon Using Bayes Factors Estimated by Thermodynamic Integration—◆Jinhee Lim, Simon Fraser University; David A. Campbell, Simon Fraser University

48 A Small-Area Approach to Construct Candidate Lists of Sites for Possible Improvements—◆Kristian Schmidt, Iowa State University; Alicia Carriquiry, Iowa State University

49 A Bayesian Generalized Linear Mixed Model for HIV-1 Vaccine Immune Response with Missing Data—◆Sydeaka Patrice Watson, Baylor University; John Seaman, Baylor University; James Stamey, Baylor University; Bette Korber, Los Alamos National Laboratory; Mark Muldoon, University of Manchester

50 Classification and Clustering Using Gaussian Graphical Models—◆Rajesh Talluri, Texas A&M University

51 Structured Prior Modeling for Bayesian Analysis of Complex Mixtures in Combinatorial Marker-Based Flow Cytometry Studies—◆Lin Lin, Duke University; Cliburn Chan, Duke University; Mike West, Duke University

52 MATLAB Toolbox for the Analysis of fMRI Data: A Bayesian Spatial Model for Activation and Connectivity—◆Lijun Zhang, Emory University; Sanjay Agravat, Emory University; Gordana Derado, Emory University; DuBois Bowman, Emory University

53 OpenBUGS Software for Bayesian Modeling—◆Neal Thomas, Pfizer Inc.

54 Robust Bayesian Approach to the Analysis of Finite Population Surveys—◆Jairo Fuquene, University of Puerto Rico

55 Bayesian Goodness-of-Fit Test and Semiparametric Generalization with Measurement Data—◆Angela Schoergendorfer, University of Kentucky; Adam J. Branscum, University of Kentucky; Timothy Edward Hanson, University of Minnesota

56 Dirichlet Processes for Quantal Response Equilibrium Models: Examination of Pegged Exchange Rate Policies—◆Anton H. Westveld, University of Nevada at Las Vegas; Kevin M. Quinn, University of California, Berkeley School of Law

57 Multilevel Modeling of Follow-Up Studies with Missing Data—◆Monica Michelle Bennett, Baylor University; John Seaman, Baylor University; James Stamey, Baylor University

58 Bayesian Estimation of Burr Type XII Parameters with General Progressive Type II Censoring—◆Chansoo Kim, Kongju National University; Seongho Song, University of Cincinnati

59 Assessing North American Influenza Dynamics with Hierarchical Spatio-Temporal Models—◆Jessica Anderson, Utah State University; Mevin B. Hooten, Utah State University; Lance Waller, Emory University

60 A Bayesian Modeling of Monotonic Ordinal Responses—◆Rui Shen, SRA International; Siva Sivaganesan, University of Cincinnati

61 Bayesian Extension of Fisher's Exact Test in the Presence of Missing Data—◆Heather Yan Lin, MD Anderson Cancer Center; Stuart R. Lipsitz, Brigham and Women's Hospital; Debajyoti Sinha, Florida State University; Garrett Fitzmaurice, Harvard Medical School; Stephen Lipshutlz, University of Miami Miller School of Medicine; J. Jack Lee, MD Anderson Cancer Center

62 Intention-to-Treat Analysis in Presence of Noncompliance—◆Rajarshi Mukherjee, Harvard University

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Contributed Oral Poster Presentations: Section on Risk Analysis—Contributed

Section on Risk Analysis

Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

63 ARCH Models Application on Istanbul Stock Market Data—◆Atilla Aslanargun, Anadolu University; Berna Yazici, Anadolu University; Betül Kan, Anadolu University; Zeynep Ozgun, Anadolu University

64 Empirical Study of Intra-Day Stock Return Volatility—◆Jian Su, University of Illinois at Chicago; Lan Zhang, Oxford-Man Institute of Quantitative Finance; Hsing-Chien Kao, University of Illinois at Chicago; Heshan Liu, Mayo Clinic

65 Statistical Risk Assessment for Chemical Substances—◆Koji Kanefuji, The Institute of Statistical Mathematics; Takayuki Fujii, The Institute of Statistical Mathematics; Masayuki Kageyama, The Institute of Statistical Mathematics; Masashi Gamo, National Institute of Advanced Industrial Science and Technology; Hiroe Tsubaki, The Institute of Statistical Mathematics

66 The Impact of Functional Impairment on the Survival of Patients with Alzheimer's Disease—◆Fuwen Liang, MD Anderson Cancer Center

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Contributed Oral Poster Presentations: Section on Physical and Engineering Sciences—Contributed
Section on Physical and Engineering Sciences
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

67 Minimum Quantile Distance Estimation of Quantiles Using Linear Combinations of Standard Quantile Functions as Models—◆Dean H. Fearn, California State University, East Bay; Elliott Nebenzahl, California State University, East Bay

68 An Analysis for Incomplete Warranty Data Based on a Pseudo-Likelihood Method—◆Yu Qiu, Iowa State University

69 A Possible Explanation for the Relation Between the Orbiting Exoplanets and Their Host Stars Based on Multivariate Analysis and Binary Modeling—◆Elizabeth Martinez Gomez, Penn State; Jogesh Babu, Penn State

70 Modeling Synergy and Independence in the Combined Effects of Lethal Factors—◆Robert H. Baran, Naval Surface Warfare Center

71 Powering the Future: Wind Power Forecasts for Solano, California—◆Tamara Greasby, University of California, Davis; Prabir Bruman, University of California, Davis

72 Statistical Behavior of a Crowd Escaping from Behind an Obstacle—◆Guillermo Frank, Universidad de Buenos Aires; Claudio Dorso, Universidad de Buenos Aires

73 Are Some Vehicle Colors Safer Than Others?—◆Peter William Hovey, University of Dayton/Air Force Academy; Deogratias Eustace, University of Dayton; Stephen Owusu-Ansah, University of Dayton

74 Characterizing Packet Delay and Jitter Through a Semiempirical Model for VoIP Traffic—◆Jin Xia, Purdue University; Mark Daniel Ward, Purdue University; William Cleveland, Purdue University

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Contributed Oral Poster Presentations: Section on Quality and Productivity—Contributed
Section on Quality and Productivity
Chair(s): Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

75 Using Stepwise Discriminant Analysis as a Post-Hoc Procedure to a Significant Hotelling's T2 Control Chart—◆Emily Pollock, University of Northern Colorado; Jay R. Schaffer, University of Northern Colorado

76 A Practical Approach for Removing Multiple Outliers Using the T-Square Statistic—John C. Young, Retired; ◆Robert L. Mason, Southwest Research Institute; Youn-Min Amanda Chou, The University of Texas at San Antonio

77 Optimal Design for Accelerated Degradation Tests for Wiener Degradation Processes with Time-Censoring—◆Ming-Yung Lee, Providence University; Jen Tang, Purdue University

78 Sample Size Required to Monitor Quality of Blood Products—◆Qilong Yi, University of Ottawa/Canadian Blood Services; Yue Chen, University of Ottawa

79 Performance of Control Charts for Low-Volume Production Under a Compound Normal Distribution—◆Youn-Min Amanda Chou, The University of Texas at San Antonio

80 The Unit Interval Characteristic Distributions and Their Applications—◆Fassil Nebebe, Concordia University

81 A GLR Control Chart for Monitoring a Proportion—◆Wandi Huang, Virginia Tech

82 GLR Control Chart for Monitoring the Mean Vector of Multivariate Normal Process—◆Sai Wang, Virginia Tech

Speaker with Lunch
12:30 p.m.–1:50 p.m.

540 CC-19/20 (East)
Section on Health Policy Statistics Speaker with Lunch (fee event)
Health Policy Statistics Section
Organizer(s): Recai Yucel, State University of New York at Albany

WL09 A Statistician at the Policy Table: Integrating Modeling in the Development of Public Health Guidelines—◆Ruth Etzioni, Fred Hutchinson Cancer Research Center

P.M. Roundtable Discussions
12:30 p.m.–1:50 p.m.

541 CC-Ballroom D (West)
Biopharmaceutical Section (fee event)
Biopharmaceutical Section
Organizer(s): Jeffrey Maca, Novartis Pharmaceuticals Corporation

WL10 Data Safety Monitoring Boards (DSMB) for International Clinical Trials Sponsored by the National Institute of Allergy and Infectious Diseases (NIAID)—◆Rebecca DerSimonian, National Institutes of Health

WL11 Genomics in the Pharmaceutical Industry: Where Is It Headed?—◆Dhammika Amaratunga, Johnson & Johnson; James Colaianne, Johnson & Johnson

WL12 Statistical Issues in Adaptive Design—◆Wei Zhang, FDA/CVM

WL13 Multiplicity Issues in Multidomain Patient Reported Outcome (PRO)–Based Endpoints—◆Mahboob Sobhan, FDA

WL14 Demonstrating Superiority of Test Drug to Putative Placebo in the Two-Arm Noninferiority Trial—◆Abdul J. Sankoh, Vertex Pharmaceuticals

WL15 Careers for a Biostatistician—◆Katherine Monti, Rho, Inc.

542 CC-Ballroom D (West)

Section for Statistical Programmers and Analysts (fee event)

Section for Statistical Programmers and Analysts, Section on Statistical Computing

Organizer(s): Chengying (Nancy) Wu, sanofi-aventis

WL16 R's Graphical User Interface 'R Commander' in the Intro Stats Classroom—◆Jason Wilson, Biola University

543 CC-Ballroom D (West)

Section on Bayesian Statistical Science (fee event)

Section on Bayesian Statistical Science

Organizer(s): Vanja Dukic, The University of Chicago

WL17 Bayesian Methods in Genomics: Searching for Unity in Diverse Data Sources—◆Bhramar Mukherjee, University of Michigan, Debashis Ghosh, Pennsylvania State University

544 CC-Ballroom D (West)

Section on Government Statistics (fee event)

Section on Government Statistics

Organizer(s): Iris Shimizu, National Center for Health Statistics

WL18 Microdata Access and Dissemination in a Digital World—◆Timothy Michael Mulcahy, NORC

WL19 Planning for Nonresponse Bias Analyses—◆Jill Montaquila, Westat

545 CC-Ballroom D (West)

Section on Quality and Productivity (fee event)

Section on Quality and Productivity

Organizer(s): Theresa Utlaut, Intel Corporation

WL20 Visualizing Data—◆Hadley Wickham, Rice University

546 CC-Ballroom D (West)

Section on Statistical Consulting (fee event)

Section on Statistical Consulting

Organizer(s): Richard F. Ittenbach, Cincinnati Children's Hospital Medical Center

WL21 Preparation of Statisticians for the Needs of Industry Roundtable—◆Eileen King, Cincinnati Children's Hospital Medical Center

WL22 How Can the ASA Support the Applied Statistician?—◆Jack S. Nyberg, Covance Inc.

547 CC-Ballroom D (West)

Section on Statistical Education (fee event)

Section on Statistical Education

Organizer(s): Daniel Theodore Kaplan, Macalester College

WL23 The Basics of the Survey of Attitudes Toward Statistics (SATS)—Marjorie E. Bond, Monmouth College; ◆Candace Schau, CS Consultants, LLC

WL24 Using Wikis and Social Media in Teaching Statistics—◆William Peterson, Middlebury College

WL25 Just-in-Time Teaching and Its Modifications in the Statistics Classroom—◆John D. McKenzie Jr., Babson College

WL26 Getting Rid of Excess Baggage in Introductory Statistics—◆Ron Barnes, University of Houston-Downtown

548 CC-Ballroom D (West)

Section on Statistical Graphics (fee event)

Section on Statistical Graphics

Organizer(s): Webster West, Texas A&M University

WL27 R Graphics for EDA—◆Antony Unwin, Augsburg University

549 CC-Ballroom D (West)

Section on Survey Research Methods (fee event)

Section on Survey Research Methods

Organizer(s): Paul Beatty, National Center for Health Statistics

WL28 Evaluation and Management of Cost Structures in Statistical Work with Administrative Record Data—◆John L. Eltinge, Bureau of Labor Statistics

WL29 Fitting Multilevel Models to Complex Sample Survey Data—◆Brady West, Institute for Social Research

Special Presentation 2:00 p.m.–3:50 p.m.

550 CC-Ballroom C (West)

Late-Breaking Session II: Statistics Without Borders Post-Earthquake Efforts in Haiti—Other

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association
Organizer(s): James J. Cochran, Louisiana Tech University
Chair(s): James J. Cochran, Louisiana Tech University

2:05 p.m. Considerations in the Study Design of a Mobile Phone Survey of the Haitian Population —◆James D. Ashley, Government Accountability Office; Fritz Scheuren, NORC

2:30 p.m. Survey Administration in the Wake of a Natural Disaster — ◆Justin S. Fisher, Government Accountability Office

2:55 p.m. Overview of the Results of the Survey and Lessons Learned — ◆Jean G. Orelien, SciMetrika, LLC

3:20 p.m. Disc: Romesh Silva, Benetech

3:40 p.m. Floor Discussion

Invited Sessions 2:00 p.m.–3:50 p.m.

551 CC-224 (West)

■ ✪ Nonparametric and Semiparametric Methods for Complex Surveys—Invited

Section on Survey Research Methods, IMS, Section on Nonparametric Statistics
Organizer(s): Suojin Wang, Texas A&M University
Chair(s): Suojin Wang, Texas A&M University

2:05 p.m. Nonparametric and Semiparametric M-Quantile Inference for Longitudinal Data—Nikos Tzavidis, CSSR; Nicola Salvati, DSMAE; Hukum Chandra, IASRI; ◆Raymond Chambers, CSSM

2:30 p.m. Nonparametric Regression in Some Nonstandard Sampling Situations—◆Alan H. Dorfman, Bureau of Labor Statistics

2:55 p.m. Semiparametric Marginal Mean Models for Longitudinal Survey Data—◆Li Wang, The University of Georgia; Suojin Wang, Texas A&M University

3:20 p.m. Nonparametric Endogenous Poststratification Estimation—◆Jay Breidt, Colorado State University; Mark Dahlke, Colorado State University; Jean Opsomer, Colorado State University; Ingrid Van Keilegom, Université Catholique de Louvain

3:45 p.m. Floor Discussion

552 CC-111/112 (West)

✪ Bayesian Approach for Safety and Efficacy Analyses—Invited

Section on Bayesian Statistical Science, International Chinese Statistical Association, Health Policy Statistics Section, Section for Statistical Programmers and Analysts
Organizer(s): Fei Wang, Boehringer-Ingelheim Pharmaceuticals
Chair(s): Fei Wang, Boehringer-Ingelheim Pharmaceuticals

2:05 p.m. Hierarchical Gaussian Power Prior Models for Adaptive Incorporation of Historical Information in Clinical Trials—◆Bradley P. Carlin, University of Minnesota; Brian P. Hobbs, University of Minnesota; Daniel Sargent, Mayo Clinic; Sumithra Mandrekar, Mayo Clinic

2:30 p.m. Combining Information Across Studies for Clinical Trials: What We Have Learned at FDA's Center for Devices and Radiological Health—◆Laura Thompson, FDA/CDRH

2:55 p.m. Predictive Probability Approach for the Design and Analysis of Response and Toxicity Data in Cancer Clinical Trials—◆J. Jack Lee, MD Anderson Cancer Center; Guosheng Yin, The University of Hong Kong; Nan Chen, M D Anderson Cancer Center

3:20 p.m. Bayesian Dynamic Models for Improved Efficacy in Avoidance of Preventable Hospital Deaths—◆David Draper, University of California, Santa Cruz

3:45 p.m. Floor Discussion

553 CC-223 (West)

■ ✪ Bayesian Nonparametric Modeling of Longitudinal and Survival Data—Invited

Section on Nonparametric Statistics, Business and Economic Statistics Section, IMS, Section on Bayesian Statistical Science, Health Policy Statistics Section, Section on Risk Analysis, WNAR
Organizer(s): Steven MacEachern, The Ohio State University
Chair(s): Steven MacEachern, The Ohio State University

2:05 p.m. Bayesian Nonparametric Longitudinal Data Analysis with Embedded Autoregressive Structure: Application to Hormone Data—◆Wesley Johnson, University of California, Irvine; Fernando Quintana, Pontificia Universidad Católica de Chile

2:25 p.m. Bayesian Clustering for Failure-Time Data—◆Gary Rosner, The Johns Hopkins University; Peter Mueller, MD Anderson Cancer Center; Fernando Quintana, Pontificia Universidad Católica de Chile

2:45 p.m. Asymptotics for Posterior Mixture Hazards—Pierpaolo De Blasi, University of Turin/Collegio Carlo Alberto; Giovanni Peccati, University of Luxembourg; ◆Igor Pruenster, University of Turin

3:05 p.m. Bayesian Nonparametric Estimation of Regression Models in Event History Analysis—◆Pierpaolo De Blasi, University of Turin/Collegio Carlo Alberto

3:25 p.m. Disc: Antonio Lijoi, University of Pavia

3:45 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

554 CC-306 (West)

■ ✪ Bayesian Methods in Pharmaceutical Development and Clinical Research—Invited

ENAR, Biopharmaceutical Section, Section on Bayesian Statistical Science, Section for Statistical Programmers and Analysts
Organizer(s): Haoda Fu, Eli Lilly and Company
Chair(s): Haoda Fu, Eli Lilly and Company

2:05 p.m. Simulation of a Phase III Trial Using Realizations of Posterior Distribution Based on a Phase IIb Trial—◆A. Lawrence Gould, Merck Research Laboratories

2:30 p.m. The Role of Bayesian Statistics in Confirmatory Drug Development Trials—◆David Ohlssen, Novartis Pharmaceuticals Corporation

2:55 p.m. Bayesian Applications in Drug Safety Evaluation—◆Amy Xia, Amgen Inc.

3:20 p.m. Model-Based Bayesian Dose Response Estimation for Longitudinal Binary Data—◆Huaming Tan, Pfizer Inc.

3:45 p.m. Floor Discussion

555 CC-212 (West)

■ ✪ Re-Randomization Test for Clinical Trials Using Biased-Coin Covariate Adaptive Randomization—Invited

General Methodology, Section on Nonparametric Statistics
Organizer(s): Jiandong Lu, Johnson & Johnson
Chair(s): Jiandong Lu, Johnson & Johnson

2:05 p.m. Statistical Testing in Clinical Trial with Covariate Adaptive Randomization—◆H.M. James Hung, FDA; Sue-Jane Wang, FDA

2:35 p.m. Properties of Re-Randomization Tests in Clinical Trials with Adaptive Randomization—◆Stephen Lake, Genzyme Corporation; Cyrus R. Mehta, Cytel Inc.; L. J. Wei, Harvard University

3:05 p.m. Weighted Randomization Test for Multi-Arm Randomized Clinical Trials—◆Feifang Hu, University of Virginia

3:35 p.m. Floor Discussion

556 CC-122 (West)

■ ✪ Implementing the Measuring American Poverty Act in States and Local Areas—Invited

Social Statistics Section, Section on Government Statistics, Section on Survey Research Methods
Organizer(s): Mark Levitan, NYC Center for Economic Opportunity
Chair(s): Mark Levitan, NYC Center for Economic Opportunity

2:05 p.m. Using the American Community Survey (ACS) to Implement a National Academy of Sciences (NAS)-Style Poverty Measure—◆Trudi Renwick, U.S. Census Bureau; Mark Levitan, NYC Center for Economic Opportunity

2:25 p.m. Creating a New Measure of Poverty for the State of Wisconsin—◆Timothy Smeeding, Institute for Research on Poverty

2:45 p.m. Variance Estimation Protocols for the NAS Poverty Measure: The New York City Poverty Measure Experience—◆Frank Potter, Mathematica Policy Research, Inc.; Eric Grau, Mathematica Policy Research, Inc.; John Czajka, Mathematica Policy Research, Inc.; Mark Levitan, NYC Center for Economic Opportunity

3:05 p.m. The Analysis of the TANF and Food Stamp Programs with Matched Administrative and Survey Data—◆Bruce D. Meyer, The University of Chicago; George Falco, NYS Office of Temporary and Disability Assistance

3:25 p.m. Disc: Gayatri Koolwal, The World Bank

3:45 p.m. Floor Discussion

557 CC-301 (West)

■ ✪ *JASA* - Applications and Case Studies Invited Session—Invited

JASA, Applications and Case Studies, Committee on Applied Statisticians, International Chinese Statistical Association, Section on Physical and Engineering Sciences
Organizer(s): Hal Stern, University of California, Irvine
Chair(s): Hal Stern, University of California, Irvine

2:05 p.m. The Value of Multiproxy Reconstruction of Past Climate—◆Bo Li, Purdue University; Douglas Nychka, National Center for Atmospheric Research; Caspar Ammann, National Center for Atmospheric Research

2:50 p.m. Disc: Noel A. Cressie, The Ohio State University

3:05 p.m. Disc: Richard Smith, The University of North Carolina at Chapel Hill

3:20 p.m. Disc: Eugene Wahl, NOAA

3:35 p.m. Floor Discussion

558 CC-202 (West)

■ Multivariate Ordering and Related Topics—Invited

IMS
Organizer(s): Yijun Zuo, Michigan State University
Chair(s): Yijun Zuo, Michigan State University

2:05 p.m. On Obtaining Affine Equivariance or Invariance of Multivariate Statistics, with Application to Quantile and Outlyingness Functions—◆Robert Serfling, The University of Texas at Dallas

2:30 p.m. Theory and Applications for Multivariate Spacings Based on Data Depth—◆Jun Li, University of California, Riverside; Regina Liu, Rutgers University; Juan A. Cuesta Albertos, University of Cantabria

2:55 p.m. Confidence Regions for Level Sets—◆Wolfgang Polonik, University of California, Davis

3:20 p.m. From Multiple Output Quantiles to Signed Ranks: A New Multivariate Probability Integral Transformation—◆Marc Hallin, Université Libre de Bruxelles

3:45 p.m. Floor Discussion

559 CC-211 (West)

Novel Methods for Extended Case-Control Designs—Invited

Section on Statistics in Epidemiology, Biometrics Section, Committee on Applied Statisticians, ENAR, International Chinese Statistical Association, WNAR

Organizer(s): Ivy Liu, Victoria University of Wellington
Chair(s): Ivy Liu, Victoria University of Wellington

2:05 p.m. Improved Horvitz-Thompson Estimation of Model Parameters from Stratified Case-Control Samples—◆Norman Breslow, University of Washington

2:30 p.m. Improved Efficiency in Multiphase Case-Control Studies—◆Christopher J. Wild, University of Auckland; Alastair Scott, University of Auckland

2:55 p.m. Semiparametric Pseudo-Maximum-Likelihood Estimation Exploiting Gene-Environment Independence for Population-Based Case-Control Studies with Complex Sampling—Barry I. Graubard, National Cancer Institute; ◆Yan Li, The University of Texas at Arlington

3:20 p.m. Case-Control Sampling for Longitudinal Studies—◆Paul J. Rathouz, The University of Chicago; Jonathan Schildcrout, Vanderbilt University

3:45 p.m. Floor Discussion

560 CC-201 (West)

High-Dimensional Estimation and Variable Selection—Invited

IMS

Organizer(s): Jian Huang, The University of Iowa
Chair(s): Shuangge Ma, Yale University

2:05 p.m. Penalized Convex Minimization—◆Cun-Hui Zhang, Rutgers University

2:30 p.m. A Unified Framework for High-Dimensional Analysis of M-estimators with Decomposable Regularizers—◆Pradeep Ravikumar, The University of Texas at Austin; Sahand Negahban, University of California, Berkeley; Martin Wainwright, University of California, Berkeley; Bin Yu, University of California, Berkeley

2:55 p.m. Semiparametric Model Pursuit—◆Jian Huang, The University of Iowa

3:20 p.m. Some Algorithms for Sparse Learning—◆Tong Zhang, Rutgers University

3:45 p.m. Floor Discussion

Invited Panel 2:00 p.m.–3:50 p.m.

561 CC-118 (West)

■ ✪ Balancing Individual Privacy with Access to Data for Policymaking—Invited

Committee on Privacy and Confidentiality, Committee on Professional Ethics, IMS, International Chinese Statistical Association, Section on Government Statistics, Health Policy Statistics Section, Social Statistics Section

Organizer(s): J. Neil Russell, National Center for Education Statistics
Chair(s): J. Neil Russell, National Center for Education Statistics

Panelists: ◆Stephen E. Fienberg, Carnegie Mellon University
◆Nancy M. Gordon, U.S. Census Bureau
◆Michael Lee Cohen, Committee on National Statistics
◆Tom Krenzke, Westat
◆Ed J. Christopher, Federal Highway Administration
◆Stephen Gunnells, The Planning Center

3:45 p.m. Floor Discussion

Topic-Contributed Sessions 2:00 p.m.–3:50 p.m.

562 CC-215 (West)

■ ✪ Statistical and Computational Approaches for Improved Population Health Measurement—Topic-Contributed

Biometrics Section

Organizer(s): Emmanuela Gakidou, Institute for Health Metrics and Evaluation
Chair(s): Emmanuela Gakidou, Institute for Health Metrics and Evaluation

2:05 p.m. The Long Tail of Disease Modeling—◆Abraham D. Flaxman, Institute for Health Metrics and Evaluation; Stephen S. Lim, Institute for Health Metrics and Evaluation; Christopher J.L. Murray, Institute for Health Metrics and Evaluation

2:25 p.m. Small-Area Estimation of U.S. Health Disparities—◆Tanja Srebotniak, Ecologic Institute; Christopher J.L. Murray, Institute for Health Metrics and Evaluation; Ali Mokdad, Institute for Health Metrics and Evaluation; Rafael Lozano, Institute for Health Metrics and Evaluation

2:45 p.m. Validity of Statistical and Computational Methods to Ascertain Causes of Death: Can They Outperform Physicians?—◆Christopher J.L. Murray, Institute for Health Metrics and Evaluation; Jeanette Kurian Birnbaum, Institute for Health Metrics and Evaluation; Abraham D. Flaxman, Institute for Health Metrics and Evaluation; Sean Green, Institute for Health Metrics and Evaluation

3:05 p.m. Disc: Gary King, Harvard University

3:25 p.m. Floor Discussion

563 CC-121 (West)

✪ Introducing the 2020 Decennial Census—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): Sally Obenski, U.S. Census Bureau
Chair(s): Dan Weinberg, U.S. Census Bureau

2:05 p.m. Rethinking the 2020 Census—◆Sally Obenski, U.S. Census Bureau; Elaine Reed, Mitre Corporation

2:25 p.m. Qualitative Assesment of the 2010 Census—◆Frank Vitrano, U.S. Census Bureau; Frank Vitrano, U.S. Census Bureau

2:45 p.m. Operational Design Options for the 2020 Census—◆James Treat, U.S. Census Bureau

3:05 p.m. Policy and Communication Challenges for the 2020 Census—◆Christa Jones, U.S. Census Bureau

3:25 p.m. Disc: Nancy Potok, U.S. Department of Commerce

3:45 p.m. Floor Discussion

564 CC-208 (West)

■ ✪ Methodology for Family-Based Genetic Association Studies—Topic-Contributed

Biometrics Section, ENAR, General Methodology
Organizer(s): James Troendle, Eunice Kennedy Shriver National Institute of Child Health and Human Development
Chair(s): Kai Fun Yu, Eunice Kennedy Shriver National Institute of Child Health and Human Development

2:05 p.m. Robust Methods for Genomewide Analysis in Family Samples, with Application to the Framingham Heart Study—◆Josee Dupuis, Boston University School of Public Health

2:25 p.m. On the meta-Analysis of Genomewide Association Studies:A Robust and Efficient Approach to Combine Population and Family-Based Studies—Christoph Lange, Harvard School of Public Health; ◆Sungho Won, Chung-Ang University

2:45 p.m. Gene-by-Environment Interactions in Studies Based on Nuclear Families—Clarice R. Weinberg, National Institute of Environmental Health Sciences; ◆Min Shi, National Institute of Environmental Health Sciences; David Umbach, National Institute of Environmental Health Sciences

3:05 p.m. Robust Transmission Disequilibrium Test for Family Trio Design—Min Yuan, Fudan University, China; Yaning Yang, University of Science and Technology of China; Xin Tian, National Institutes of Health; ◆Gang Zheng, National Institutes of Health

3:25 p.m. Disc: James Troendle, Eunice Kennedy Shriver National Institute of Child Health and Human Development

3:45 p.m. Floor Discussion

565 CC-221 (West)

✪ Statistical Issues in Pharmaceutical Neuroimaging—Topic-Contributed

Biopharmaceutical Section, IMS
Organizer(s): Richard Baumgartner, Merck Research Laboratories
Chair(s): Shubing Wang, Merck & Co., Inc.

2:05 p.m. Independent Component Analysis of fMRI Data with Application to the Study of Functional Connectivity in Neurodegeneration—◆Dai Feng, Merck & Co., Inc.; Richard Baumgartner, Merck Research Laboratories; Alexandre Coimbra, Merck & Co., Inc.; Marie Holahan, Merck & Co., Inc.; Jacquelynn Cook, Merck & Co., Inc.; Donald Williams, Merck & Co., Inc.

2:25 p.m. The Statistical Analysis of Pharmacological fMRI Data, with an Application to a Study of Expectancy-Based Enhancement of Opioid Analgesia—◆Martin Lindquist, Columbia University; Lauren Atlas, Columbia University; Tor Wager, University of Colorado

2:45 p.m. Functional Connectivity Growth Charts—◆Philip T. Reiss, New York University; Lei Huang, New York University; Eva Petkova, New York University; Michael P. Milham, New York University; F. Xavier Castellanos, New York University

3:05 p.m. Diffusion Tensor Imaging (DTI) as a Potential Biomarker of Autism—◆Moo K. Chung, University of Wisconsin

3:25 p.m. Disc: Richard Baumgartner, Merck Research Laboratories

3:45 p.m. Floor Discussion

566 CC-213 (West)

■ Challenges and Methods for Evaluating Diagnostic Devices and Medical Device Software—Topic-Contributed

Biopharmaceutical Section
Organizer(s): Bipasa Biswas, FDA/CDRH
Chair(s): Estelle Russek-Cohen, FDA

2:05 p.m. Regulatory Issues in Biomarker Evaluation—◆Kyunghee Kim Song, FDA/CDRH

2:25 p.m. Some Diagnostic Issues in Cardiovascular Device Studies—◆Shanti Gomatam, FDA/CDRH

2:45 p.m. Evaluation and Interpretation of Diagnostic and Prognostic Tests—◆Bipasa Biswas, FDA/CDRH

3:05 p.m. Medical Device Software Safety, Validation, Verification, and Effectiveness—◆Carolyn Carroll, STAT TECH, Inc.

3:25 p.m. Disc: Greg Campbell, FDA

3:45 p.m. Floor Discussion

567 CC-205 (West)

✪ Cross-National Survey Research Methodology—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Tom W. Smith, NORC
Chair(s): Tom W. Smith, NORC

2:05 p.m. Cultural Effect and Nonresponse Trends in Qatar Student Population—◆Safaa R. Amer, NORC

2:25 p.m. Two Approaches to Design Effects—◆Matthias Ganninger, Leibniz Institute for the Social Sciences; Sabine Häder, Leibniz Institute for the Social Sciences; Siegfried Gabler, Leibniz Institute for the Social Sciences

2:45 p.m. A Preliminary Assessment of Cultural Variability in Respondent Actions—◆Timothy Patrick Johnson, Survey Research Laboratory; Young Ik Cho, Survey Research Laboratory; Allyson Holbrook, Survey Research Laboratory

3:05 p.m. Design Effects and Misspecification Effects for Cross-National Comparisons Where Sample Design Varies Between Countries—◆Olena Kaminska, University of Essex; Peter Lynn, University of Essex

3:25 p.m. A Framework for Monitoring Quality in Cross-National Survey Research—◆Beth-Ellen Pennell, University of Michigan; Kirsten Alcser, University of Michigan; Sue Ellen Hansen, University of Michigan; Ashley Bowers, University of Michigan

3:45 p.m. Floor Discussion

568 CC-206 (West)

■ Innovative Statistical Methods for Improving Estimates Derived from Samples of Administrative Records—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Barry Wayne Johnson, IRS
Chair(s): Tamara Rib, IRS

2:05 p.m. An Application of Calibration Approach in Weight Trimming for Stratum Jumpers—◆Yan K. Liu, IRS; Phillip S. Kott, RTI International; Lance L. Harris, IRS

2:25 p.m. Creating a 100-Year Time Series of Tax Data with Consistent Income Ranges from Existing Historical Tabulations and Current Microdata - Part 1: Why and How—◆Victoria Bryant, IRS; Yan K. Liu, IRS; Fritz Scheuren, NORC; Katie Thamert, IRS

2:45 p.m. Developing an Optimal Approach to Account for Late-Filed Returns in Population Estimates: A Comparative Analysis—◆Cynthia Belmonte, IRS; Charles D. Day, IRS; Paul Arnsberger, IRS; Brian Raub, IRS

3:05 p.m. Applying Alternative Variance Estimation Methods to Estimate Totals Under Raking in SOI's Corporate Sample—◆Valerie Testa, IRS; Kimberly Henry, IRS; Richard Valliant, University of Maryland

3:25 p.m. Alternative Weight Trimming Methods to Estimate Totals in Single-Stage Sample Designs—◆Kimberly Henry, IRS

3:45 p.m. Floor Discussion

569 CC-220 (West)

✪ Methods, Practical Experiences, and Strategies for Adaptive Design Clinical Trials—Topic-Contributed

Biopharmaceutical Section, Section for Statistical Programmers and Analysts
Organizer(s): Sue-Jane Wang, FDA
Chair(s): Sue-Jane Wang, FDA

2:05 p.m. Sequential Design of Phase II–III Cancer Trials—Tze Leung Lai, Stanford University; Philip Lavori, Stanford University; ◆Mei-Chiung Shih, Stanford University

2:25 p.m. Adaptive Dose Finding Using the 'Maximizing Procedure': Case Study and Missing Data Simulation—◆Kenneth Liu, Merck & Co., Inc.

2:45 p.m. Informed Decisionmaking Using Modeling and Simulation: Case Study of a Selective PDE5 Inhibitor for the Treatment of BPH—◆Patrick John Johnson, Vifor Pharma Ltd.

3:05 p.m. Strategies for Setting Up the Logistics in Early Phase Adaptive Design Clinical Trials—◆Eva R. Miller, ICON Clinical Research

3:25 p.m. Adding a Prediction Interval Futility Analysis to a Group Sequential Trial—◆John Loewy, ARIAD Pharmaceuticals; David Dorer, ARIAD Pharmaceuticals

3:45 p.m. Floor Discussion

570 CC-109 (West)

■ ✪ Two-Phase Data Collection Designs—Topic-Contributed

Section on Survey Research Methods, WNAR
Organizer(s): J. Michael Brick, Westat
Chair(s): J. Michael Brick, Westat

2:05 p.m. Maximizing Response for Households with Children in a Two-Phase Address-Based Sample—◆Jill Montaquila, Westat; J. Michael Brick, Westat; Douglas Williams, Westat

2:25 p.m. A Two-Phase Sample for the National Survey of Veterans—◆David Cantor, Westat; Richard Sigman, Westat; Daifeng Han, Westat; Maribel Aponte, Veterans Administration

2:45 p.m. A Pilot Test of a Dual Frame Mail Survey of Recreational Marine Anglers—◆Nancy Mathiowetz, University of Wisconsin-Milwaukee; Rob Andrews, NOAA; J. Michael Brick, Westat; Lynne Stokes, Southern Methodist University

3:05 p.m. Implementing Two-Stage Interviewing in an RDD Survey—◆W. Sherman Edwards, Westat; J. Michael Brick, Westat; Royce Park, University of California, Los Angeles Center for Health Policy Research; David Grant, University of California, Los Angeles Center for Health Policy Research

3:25 p.m. Disc: Don Dillman, Washington State University

3:45 p.m. Floor Discussion

571 CC-217 (West)

Risk Prediction in Survival Data—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section, Section on Risk Analysis

Organizer(s): Nancy Cook, Brigham and Women's Hospital
Chair(s): Robert Glynn, Brigham and Women's Hospital

2:05 p.m. Performance Measures for Survival Prediction Models: An Overview—◆Linda M. Peelen, Julius Center for Health Sciences and Primary Care UMC Utrecht; Nina P. Paynter, Brigham and Women's Hospital; Karel G.M. Moons, Julius Center for Health Sciences and Primary Care UMC Utrecht; Nancy Cook, Brigham and Women's Hospital

2:25 p.m. Performance of Prediction Measures in a Survival Setting—◆Nina P. Paynter, Brigham and Women's Hospital; Linda M. Peelen, Julius Center for Health Sciences and Primary Care UMC Utrecht; Nancy Cook, Brigham and Women's Hospital

2:45 p.m. Nonparametric Estimation of Concordance Probability with Censored Data—◆Mithat Gonen, Memorial Sloan-Kettering Cancer Center; Glenn Heller, Memorial Sloan-Kettering Cancer Center; Qianxing Mo, Memorial Sloan-Kettering Cancer Center

3:05 p.m. Comparing Non-Nested Survival Prediction Models—◆Ulla Brasch Mogensen, University of Copenhagen; Thomas A. Gerds, University of Copenhagen

3:25 p.m. Disc: Nancy Cook, Brigham and Women's Hospital

3:45 p.m. Floor Discussion

572 CC-214 (West)

■ Distance Sampling: Advances and Applications—Topic-Contributed

Section on Statistics and the Environment

Organizer(s): Joel Howard Reynolds, U.S. Fish and Wildlife Service
Chair(s): Daniel Cooley, Colorado State University

2:05 p.m. Kernal Density Methods for Estimation of Nonstandard Detection Functions—◆James Griswold, Western EcoSystems Technology, Inc.; Trent McDonald, Western EcoSystems Technology, Inc.; Michelle Borassou-Stahl, Western EcoSystems Technology, Inc.

2:25 p.m. Performance Assessment of 'Gamma Distribution'-Shaped Detection Functions for Aerial Line Transect Surveys of Large Terrestrial Mammals—◆Joel Howard Reynolds, U.S. Fish and Wildlife Service; Anna-Marie Benson, University of Alaska, Fairbanks

2:45 p.m. Mourning Doves Fly with a Kolmogoroff-Smirnoff Enhancement—◆Dean S. Barron, twobluecats.com

3:05 p.m. Estimation of Spatio-Temporal Relative Animal Density from Line Transect Data with Clustering and Censoring—◆Geof Givens, Colorado State University

3:25 p.m. A Model-Based Approach for Making Ecological Inference from Distance Sampling Data—◆Devin Johnson, NOAA; Jeff Laake, NOAA; Jay Ver Hoef, NOAA

3:45 p.m. Floor Discussion

573 CC-10 (East)

■ ✪ Astrostatistics—Topic-Contributed

Section on Statistical Learning and Data Mining

Organizer(s): Woncheol Jang, The University of Georgia
Chair(s): Johan Lim, Seoul National University

2:05 p.m. Analysis of Long-Period Variable Stars with Nonparametric Tests for Trend Detection—◆Woncheol Jang, The University of Georgia; Cheolwoo Park, The University of Georgia; Jeongyoun Ahn, The University of Georgia; Martin Hendry, University of Glasgow

2:25 p.m. Streaming Motion in Leo I—◆Bodhisattva Sen, Columbia University

2:45 p.m. Bootstrap Bandwidth Selection for Estimating a Cosmological Mass Bias Parameter—◆Ji Meng Loh, AT&T Labs - Research

3:05 p.m. Accurate Parameter Estimation Using High-Dimensional Astrophysical Data—◆Joseph William Richards, Carnegie Mellon University

3:25 p.m. Using Local Likelihoods to Estimate Gravitational Lensing of the CMB—◆Ethan Anderes, University of California, Davis

3:45 p.m. Floor Discussion

574 CC-14 (East)

High-Dimensional Data Analysis and Visualization—Topic-Contributed

Section on Statistical Graphics, Section on Quality and Productivity, Section on Statistical Computing

Organizer(s): Dawn B. Woodard, Cornell University
Chair(s): Dawn B. Woodard, Cornell University

2:05 p.m. Bayesian Visual Analytics: A Formal Visual Navigation Scheme—◆Scotland Leman, Virginia Tech

2:25 p.m. Learning with Dynamic Visualizations—◆Leanna House, Virginia Tech; Scotland Leman, Virginia Tech

2:45 p.m. Multiscale Factor Models for Molecular Networks—◆Justin Guinney, Sage Bionetworks

3:05 p.m. Travel Time Estimation on Road Networks—◆Bradford Westgate, Cornell University

3:25 p.m. Floor Discussion

575 CC-13 (East)

Collaborative Projects in Statistics Education Research—Topic-Contributed

Section on Statistical Education
Organizer(s): Robert DelMas, University of Minnesota
Chair(s): Felicity Enders, Mayo Clinic

2:05 p.m. CAUSE-Sponsored Research Clusters—◆Sterling C. Hilton, Brigham Young University

2:25 p.m. Understanding *p*-Values and Statistical Significance—◆Jennifer Bergamo, Onondaga Community College; Ayesha Nneka Delpish, Elon University; Nyaradzo Hope Mvududu, Seattle Pacific University; Georgette Nicolaides, Syracuse University

2:45 p.m. Studying Student Learning Trajectories for Sampling Distributions by Using Simulation Activities—◆Aaron Weinberg, Ithaca College; Stacey Hancock, Reed College; Jennifer Noll, Portland State University; Sean Simpson, Westchester Community College

3:05 p.m. College Students' Opinions About Context and Conceptions About Samples—Tara Cope, Adirondack Community College; Herle McGowan, North Carolina State University; ◆Leigh Slauson, Capital University; Jacqueline Wroughton, Northern Kentucky University

3:25 p.m. Participants' Perspectives on a Collaborative Research Mentoring Program—◆Nyaradzo Hope Mvududu, Seattle Pacific University

2:45 p.m. Floor Discussion

576 CC-302/303 (West)

Functional Data Analysis—Topic-Contributed

SSC, ENAR, General Methodology, IMS
Organizer(s): Jiguo Cao, Simon Fraser University
Chair(s): Jiguo Cao, Simon Fraser University

2:05 p.m. Model Selection for Gaussian Mixture Models and Mixture of Factor Models—◆Tao Huang, University of Virginia

2:25 p.m. Penalized Functional Regression—◆Jeff Goldsmith, Johns Hopkins Bloomberg School of Public Health; Jennifer Feder, Johns Hopkins Bloomberg School of Public Health; Ciprian Crainiceanu, The Johns Hopkins University; Brian Scott Caffo, Johns Hopkins Bloomberg School of Public Health; Daniel Reich, National Institutes of Health

2:45 p.m. Reversible Jump MCMC for Parametric Functional Data Models: Changing Models Through Function Space Mappings—◆David A. Campbell, Simon Fraser University

3:05 p.m. Robust Functional Principal Components Analysis for Skewed Distributions and Its Application to Outlier Detection—◆Liangliang Wang, The University of British Columbia; Nancy Heckman, The University of British Columbia; Matias Salibián-Barrera, The University of British Columbia

3:25 p.m. Mixture Cure Model with Nonparametric Components—◆Pang Du, Virginia Tech; Lu Wang, Virginia Tech

3:45 p.m. Floor Discussion

577 CC-222 (West)

■ ✪ Empirical Likelihood Methods—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Yichuan Zhao, Georgia State University
Chair(s): Lang Wu, The University of British Columbia

2:05 p.m. Empirical Likelihood for Estimating Equations with Censored Data—◆Mai Zhou, University of Kentucky

2:25 p.m. Semiparametric Inference for Transformation Models via Empirical Likelihood—◆Yichuan Zhao, Georgia State University

2:45 p.m. Empirical Likelihood with Infinitely Many Constraints—◆Hanxiang Peng, Indiana University Purdue University Indianapolis; Anton Schick, Binghamton University

3:05 p.m. The Effects of Spatial Correlation on the Empirical Likelihood—◆Nancy L. Glenn, Texas Southern University; Monica C. Jackson, American University

3:25 p.m. An Emprical Likelihood Method for Irregular Spatial Data—◆Dan Nordman, Iowa State University

3:45 p.m. Floor Discussion

578 CC-207 (West)

✪ Model Selection and Estimation for Long Memory Processes—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Zsolt Talata, The University of Kansas
Chair(s): Surya Tokdar, Duke University

2:05 p.m. Fixed-Bandwidth Asymptotics for the Studentized Mean for Long and Negative Memory Time Series—◆Tucker Sprague McElroy, U.S. Census Bureau

2:25 p.m. Finite Memory Estimation of Infinite Memory Processes—◆Zsolt Talata, The University of Kansas; Imre Csiszar, Hungarian Academy of Sciences

2:45 p.m. Deinterleaving Markov Processes via Penalized Maximum Likelihood—◆Marcelo J. Weinberger, Hewlett-Packard Laboratories; Gadiel Seroussi, Hewlett-Packard Laboratories; Wojciech Szpankowski, Purdue University

3:05 p.m. A Self-Consistent Approach for Nonparametric Spectral Density Estimation with Missing Data—◆Zhengyuan Zhu, Iowa State University; Thomas C.M. Lee, University of California, Davis

3:25 p.m. Bispectral-Based Methods for Clustering Nonlinear Time Series—◆Jane L. Harvill, Baylor University; Nalini Ravishanker, University of Connecticut; Bonnie Kathryn Ray, IBM T.J. Watson Research Center

3:45 p.m. Floor Discussion

579 CC-16 (East)

■ ✪ Statistical Analysis on Incentives and Performance of K–12 Teachers—Topic-Contributed

Business and Economic Statistics Section

Organizer(s): Shawn Ni, University of Missouri
Chair(s): Shawn Ni, University of Missouri

2:05 p.m. The Link Between Pensions and Retirement Timing: Lessons from California Teachers—◆Kristine Brown, University of Illinois at Urbana-Champaign

2:25 p.m. Teacher Pension Incentives, Retirement Behavior, and Potential for Reform in Arkansas—Robert M. Costrell, University of Arkansas; ◆Josh McGee, University of Arkansas

2:45 p.m. Estimating a Dynamic Discrete Choice on Teachers' Retirement Decision—◆Michael Podgursky, University of Missouri; Shawn Ni, University of Missouri

3:05 p.m. Teacher Pay for Performance: Experimental Evidence from Nashville's Project on Incentives in Teaching—◆Matthew G. Springer, Vanderbilt University; Dale Ballou, Vanderbilt University; J.R. Lockwood, RAND Corporation; Daniel F. McCaffrey, RAND Corporation

3:25 p.m. Disc: Matthew Pepper, National Center on Performance Incentives

3:45 p.m. Floor Discussion

Contributed Sessions 2:00 p.m.–3:50 p.m.

580 CC-17 (East)

General Methodology—Contributed

General Methodology

Chair(s): Xingdong Feng, National Institute of Statistical Sciences

2:05 p.m. The Chi-Squared Test and Modifications: From 1900 to 2010—◆Vassilly Voinov, KIMEP

2:20 p.m. Information Matrices in Estimating Function Approach: Test for Model Misspecification and Model Selection—◆Qian Zhou, Harvard School of Public Health; Peter Song, University of Michigan; Mary Thompson, University of Michigan

2:35 p.m. Statistical Prediction for Massive Temporal Network Data Using Cloud Computing—◆Vadim Kutsyy, eBay; Sangita Fatnani, eBay

2:50 p.m. Toward Constructing Confidence Intervals from Business Survey Data: An Empirical Investigation—◆Katherine Jenny Thompson, U.S. Census Bureau

3:05 p.m. Adaptive Deconvolution of Distribution Functions—◆Itai Dattner, Haifa University

3:20 p.m. Tests of Homoscedasticity, Multivariate Normality, and Missing Completely at Random for Multivariate Data with Missing Values—◆Mortaza Jamshidian, California State University, Fullerton; Siavash Jalal, University of California, Los Angeles

3:35 p.m. Floor Discussion

581 CC-209 (West)

■ ✪ Genomics, Including Copy-Number Variants and ChIP—Contributed

Biometrics Section

Chair(s): Lingling An, The University of Arizona

2:05 p.m. Novel Signal Processing-Based Methods for the Detection of Copy Number Changes in Human DNA—◆Catherine Stamoulis, Harvard Medical School; Rebecca Betensky, Harvard School of Public Health

2:20 p.m. A Homogenous Compound Poisson Change Point Model Approach for the Analysis of CNVs in Genomic Data—◆Jie Chen, University of Missouri-Kansas City; Ayten Yigiter, Hacettepe University; Hong-Wen Deng, University of Missouri-Kansas City

2:35 p.m. Efficient Exploration of Multiple ChIP-seq and ChIP-chip Data Sets—◆Hongkai Ji, The Johns Hopkins University

2:50 p.m. A Nonhomogeneous Hidden Markov Model for Analyzing ChIP-chip Tiling Array Data—◆Nancy Naichao Wang, Exponent, Inc.;Terence Paul Speed, University of California, Berkeley

3:05 p.m. Clustering with Exclusion Zones: Genomic Applications—◆Mark Segal, University of California, San Francisco

3:20 p.m. Critiquing Bioinformatics Resources When ID Mapping Is Needed to Integrate Genomic and Proteomic Studies—◆Roger Day, University of Pittsburgh; Kevin McDade, University of Pittsburgh; Uma Chandran, University of Pittsburgh;Alex Lisovich, University of Pittsburgh

3:35 p.m. Floor Discussion

582 CC-210 (West)

■ ✪ Proteomics: Mass Spectra and MicroRNA—Contributed

Biometrics Section

Chair(s):Yian Ann Chen, Moffitt Cancer Center

2:05 p.m. Analysis of Data from Proteomics Study Utilizing SILAC (Stable Isotopic Labeling of Amino Acids in Cell Culture)—◆Qinghua Song, Merck & Co., Inc.; Daniel Spellman, Merck & Co., Inc.; Ronald Miller, Merck & Co., Inc.;Andy Liaw, Merck & Co., Inc.

2:20 p.m. The Number of the Nearest Neighboring Sites in the Local Maximum Algorithm for Identifying Peaks in Mass Spectrometry Data Analysis—◆Zhiying You,The University of Alabama at Birmingham;Andrzej Kulczycki, The University of Alabama at Birmingham; Sreelatha Meleth,The University of Alabama at Birmingham; Denise Oelschlager,The University of Alabama at Birmingham;William Grizzle,The University of Alabama at Birmingham

2:35 p.m. Metabolites Identification and Quantification from 1H NMR Spectra by Database-Supported Bayesian Model Selection—◆Cheng Zheng, Purdue University; Shucha Zhang, Purdue University; Daniel Raftery, Purdue University; Olga Vitek, Purdue University; Susanne Ragg, Indiana University School of Medicine

2:50 p.m. A Statistical Protocol for Protein Quantitation in Bottom-Up MS-Based Proteomics—◆Xuan Wang,Texas A&M University

3:05 p.m. Evaluation of Statistical Methods in MicroRNA Profiling Data Analyses for Cancer Patients—◆Hui Tang, Mayo Clinic; Jin Jen, Mayo Clinic; Riska Shaun, Mayo Clinic; Ping Yang, Mayo Clinic

3:20 p.m. Human MicroRNA Target Prediction by the Relative R-Squared Method—◆Wan Ju Hsieh, National Chiao Tung University; Hsiuying Wang, National Chiao Tung University

3:35 p.m. Predicting Patient Survival from Proteomic Profile Using MALDI-TOF Mass Spectrometry Data—◆Farida Mostajabi, University of Louisville; Susmita Datta, University of Louisville

583 CC-117 (West)

■ Statistical Strategies for Oncology Trials—Contributed

Biopharmaceutical Section

Chair(s):Aloka Chakravarty, FDA

2:05 p.m. Bias in Oncology Time-to-Event Data Analysis—◆Din Chen, Georgia Southern University;Yuhlong Lio,The University of South Dakota;Yibin Wang, Novartis

2:20 p.m. Simulation-Based Conditional Power Calculation for Phase III Oncology Trials—◆Jing Xu, Millennium Pharmaceuticals, Inc.

2:35 p.m. Exponential Failure-Time Mixture Model for Evaluating Efficacy in the Presence of a Biomarker: KRAS Validation—◆Kallappa M. Koti, FDA

2:50 p.m. Case Study: Benefits of an Adaptive Clinical Trial Design in Oncology—◆Darcy Hille, Merck & Co., Inc.; Christine K. Gause, Merck Research Laboratories; Jason B. Clark, Merck Research Laboratories; Sarah Hoagey, Merck & Co., Inc.; Keaven M.Anderson, Merck Research Laboratories

3:05 p.m. Drug Regimen Selection in Early-Stage Two-Arm Oncology Clinical Trials—Guohui Liu, Millennium Pharmaceuticals, Inc.; ◆Xuedong Chi, Millennium Pharmaceuticals, Inc.

3:20 p.m. Statistical Methods for a Phase II Oncology Trial with a GMI Endpoint—◆Stephanie Ann Kovalchik, University of California, Los Angeles;William Leonard Mietlowski, Novartis Oncology

3:35 p.m. Sensitivity Analysis for PFS—◆Alicia Zhang,Amgen Inc.; Alan Rong,Amgen Inc.;Ying Tian,Amgen Inc.; Michael Wolf,Amgen Inc.

584 CC-120 (West)

■ Analysis of Composite Endpoints, Surrogate Endpoints, and Multicenter Trials—Contributed

Biopharmaceutical Section, ENAR

Chair(s): Lihan Yan, FDA

2:05 p.m. Statistical and Clinical Characteristics of Composite Endpoint in Clinical Studies—◆Jeng Mah, Regulatory and Clinical Research Institute, Inc.

2:20 p.m. Comparing the Performance of Composite Endpoints and Responder Definitions with a Unified Modeling Framework for Multiple Endpoints Within Clinical Trials—◆David Andrae, PPD, Inc.

2:35 p.m. Total Migraine Freedom: A Potential Primary Endpoint to Assess Acute Treatment in Migraine—◆Anthony J. Rodgers, Merck & Co., Inc.

2:50 p.m. A Nonparametric Test for the Validation of Surrogate Endpoints—◆Xiaopeng Miao, Boston University School of Public Health; Yong-Cheng Wang, Biogen Idec; Ashis Gangopadhyay, Boston University

3:05 p.m. Statistical Challenges and Issues Related to Multiregion Trials—◆Sibabrata Banerjee, Merck & Co., Inc.; Lucy Shneyer, Merck & Co., Inc.

3:20 p.m. Expected Frequency of Allowed Forced Allocations in a Multicenter Clinical Trial—◆Suvajit Samanta, Merck Research Laboratories; Olga Kuznetsova, Merck Research Laboratories

3:35 p.m. Effect of Patient Allocation Schemes on the Power of a Test for Treatment Effect—◆Fanni Natanegara, Eli Lilly and Company; Faes Christel, Hasselt University; Geert Molenberghs, I-BioStat; Craig Mallinckrodt, Eli Lilly and Company

585 CC-203 (West)

■ ✪ Recent Developments in Statistical Distributions—Contributed

IMS

2:05 p.m. Approximation of the Distribution Functions of Projections of Random Vectors Onto Random Subspaces—◆Armine Bagyan, Penn State; Arkady Tempelman, Penn State; Bing Li, Penn State

2:20 p.m. Decomposition of Kullback-Leibler Risk with Applications to Exponential Families—◆Qiang Wu, East Carolina University; Paul Vos, East Carolina University

2:35 p.m. On an Interpretation of Celebrated Rao-Rubin Condition and Its Variations Arising in the Characterizations of the Poisson and Other Discrete Distributions—◆Makarand V. Ratnaparkhi, Wright State University

2:50 p.m. Identification of Power Distribution Mixtures Through Regression of Exponentials—◆Wen-Jang Huang, National University of Kaohsiung

3:05 p.m. Grow Rates of Moment Sequences—◆William L. Harkness, Penn State

3:20 p.m. Linear Approximation of the Ratio of the Standard Normal Density and Distribution Functions for the Estimation of Parameters of a Skew Normal Distribution—◆Debarshi Dey, University of California, Riverside; Subir Ghosh, University of California, Riverside

3:35 p.m. Floor Discussion

586 CC-204 (West)

Bayesian Model Selection, Variable Selection, and Longitudinal Data—Contributed

Section on Bayesian Statistical Science

Chair(s): Farideh Dehkordi-Vakil, Western Illinois University

2:05 p.m. The Posterior Predictive Information Criterion—◆Andrew Womack, Washington University in St. Louis

2:20 p.m. A Bayes Factor with Reasonable Model Selection Consistency for ANOVA Model—◆Yuzo Maruyama, The University of Tokyo

2:35 p.m. Variable Selection for Identifying Environmental Contaminants Associated with Human Fecundity—◆Sung Duk Kim, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Rajeshwari Sundaram, Eunice Kennedy Shriver National Institute of Child Health and Human Development; Germaine M. Buck Louis, Eunice Kennedy Shriver National Institute of Child Health and Human Development

2:50 p.m. Bayesian Variable Selection in Cox Proportional Hazard Models for Survival Data—◆Kyu Ha Lee, University of Missouri-Columbia; Sounak Chakraborty, University of Missouri-Columbia; Jianguo Sun, University of Missouri

3:05 p.m. Modeling Nested Multivariate Longitudinal Count Data with Application to HIV Behavioral Intervention—◆Yuda Zhu, University of California, Los Angeles; Robert E. Weiss, University of California, Los Angeles School of Public Health

3:20 p.m. Hybrid Bayes GEE Method—◆Yi-Ju Chen, University of Wisconsin-Madison; Yi-Liang Tung, Consultant

3:35 p.m. Floor Discussion

587 CC-110 (West)

■ ✪ Modeling Health Care Costs and Survival Outcomes: Methods and Applications—Contributed

Health Policy Statistics Section, Biometrics Section, ENAR

Chair(s): Gideon D. Bahn, Loyola University Chicago/Hines VA Hospital

2:05 p.m. The Role of the Statistician in the Appraisal of Health Technologies by the UK National Institute for Clinical Excellence (NICE)—◆Michael Joseph Campbell, University of Sheffield

2:20 p.m. Multivariate Modeling of Longitudinal Health Care Costs and Time-to-Event Data in Matched Pairs—◆An Creemers, Universiteit Hasselt; Marc Aerts, Hasselt University; Niel Hens, Hasselt University; Ziv Shkedy, Universiteit Hasselt; Frank De Smet, National Alliance of Christian Mutualities; Philippe Beutels, Universiteit Antwerpen

2:35 p.m. Modeling Dependent Yearly Claim Totals Including Zero-Claims in Private Health Insurance—◆Vinzenz Erhardt, Technische Universitaet Muenchen; Claudia Czado, Technische Universitaet Muenchen

2:50 p.m. Estimating Outcome and Cost of Treatment in Elderly Patients with Colorectal Cancer Using Medicare Data—◆Emma Boswell, Trinity Partners, Inc.; Fotios K. Kokkotos, Trinity Partners, Inc.; Xiulin Shen, Trinity Partners, Inc.; Zheng Wang, Trinity Partners, Inc.; Ya Zhang, Trinity Partners, Inc.

3:05 p.m. CUSUMs for Survival Outcomes with Dependent Censoring: Application to Monitoring Waitlist Mortality in Liver Transplant Programs—◆Jie (Rena) Sun, University of Michigan; John David Kalbfleisch, University of Michigan; Douglas E. Schaubel, University of Michigan

3:20 p.m. Effect of Age at Transfer on Survival Among Preterm Newborns—◆Kenneth Pietz, Baylor College of Medicine; Jochen Profit, Texas Children's Hospital; Gould Jeffrey, Stanford University Medical Center

3:35 p.m. Treatment Strategies: An Evaluation of the Impact of Potential Preventative and Therapeutic Interventions on Costs of Alzheimer's Disease—◆Elizabeth Colantuoni, The Johns Hopkins University; Ron Brookmeyer, University of California, Los Angeles

588 CC-15 (East)

■ Risk Analysis of Accidents and Failure Times—Contributed

Section on Risk Analysis
Chair(s): Qiuyan Xu, Travelers Insurance

2:05 p.m. Quarantine Inspection: How Risky a Business?—◆Andrew Robinson, ACERA/University of Melbourne; Mark Burgman, ACERA/University of Melbourne; Rob Cannon, DAFF

2:20 p.m. Bagged Estimators for Joint Longitudinal and Survival Analysis—◆Harsh Singhal, Bank of America

2:35 p.m. Challenges in Applying Mark-Recapture Models for Measuring Large-Scale Internet Threats—◆Rhiannon Weaver, Carnegie Mellon University

2:50 p.m. Bias Correction in the Hierarchical Likelihood Approach to the Analysis of Multivariate Survival Data—◆Jihyoun Jeon, Fred Hutchinson Cancer Research Center; Li Hsu, Fred Hutchinson Cancer Research Center; Malka Gorfine, Technion - Israel Institute of Technology

3:05 p.m. Inference for Interval-Censored Data from Multistate Models—◆Yang Yang, University of Michigan; Vijay Nair, University of Michigan

3:20 p.m. An Analysis of Historical Aviation Accident Data—◆Nastaran Shababi Coleman, Federal Aviation Adminstration

3:35 p.m. Using Cumulative Hazard and Marker Processes to Model Failure—◆Bijit Roy, The George Washington University

589 CC-9 (East)

High-Dimensional Regression—Contributed

Section on Statistical Learning and Data Mining, Section on Quality and Productivity
Chair(s): Emilio Francisco Seijo, Columbia University

2:05 p.m. Regularization, Sparsity, and Rank Restrictions in High-Dimensional Regression—◆Alan Julian Izenman, Temple University

2:20 p.m. High-Dimension, Low-Sample-Size Asymptotics Using Deterministic Geometric Structure of Stochastic Data: Application to an Extension of SVM for Data on Manifolds—◆Suman Kumar Sen, Novartis Pharmaceuticals Corporation; J. S. Marron, The University of North Carolina at Chapel Hill; Mark Foskey, The University of North Carolina at Chapel Hill; Sarang Joshi, The University of Utah

2:35 p.m. Multicategory Vertex Discriminant Analysis for High-Dimensional Data—◆Tongtong Wu, University of Maryland; Kenneth Lange, University of California, Los Angeles

2:50 p.m. Correlated Component Regression: A Prediction/Classification Methodology for Possibly Many Features—◆Jay Magidson, Statistical Innovations Inc.

3:05 p.m. Learning the Kernel in a RKHS Setup for Regression Problems—◆Prasenjit Kapat, The Ohio State University; Prem Kr. Goel, The Ohio State University

3:20 p.m. Robust and Sparse Bridge Regression—◆Bin Li, Louisiana State University; Qingzhao Yu, Louisiana State University Health Sciences Center

3:35 p.m. Neyman-Pearson Paradigm in Binary Classification: Learning with Asymmetric Errors—◆Xin Tong, Princeton University

590 CC-18 (East)

Statistical Challenges in Online Marketing—Contributed

Section on Statistics and Marketing, Social Statistics Section
Chair(s): David Reiley, Yahoo! Research

2:05 p.m. Involvement Trajectories on a Social Media Platform—◆Lynd Bacon, Loma Buena Associates; Peter Lenk, University of Michigan; Danielle Murray, Shutterfly, Inc.

2:20 p.m. Method for Summarizing User Segments Click and Conversion Responses to Internet Advertising and Its Applications—◆Jaimyoung Kwon, AOL Advertising; Benjamin Jackson, AOL Advertising; Rohan Mehta, AOL Advertising; Marius Holtan, AOL Advertising

2:35 p.m. On Net Lift in a (Direct) Marketing Environment—◆Leonardo Auslender, SAS Institute

2:50 p.m. Preference Evolution in a Social Network—◆Jing Wang, University of Michigan; Anocha Aribarg, University of Michigan; Yves F. Atchade, University of Michigan

3:05 p.m. Online Experimentation: Principles and Practice—◆Roger Longbotham, Microsoft Corporation; Ji Chen, Microsoft Corporation; Justin Wang, Microsoft Corporation

3:20 p.m. Direct and Web Marketing Analytics: Data Sources, Customers Profiling, Statistical and Sociophysical Models, Personalization, and Allocation Optimization—◆Dmitri V. Kuznetsov, Intellidyn

3:35 p.m. Does Retail Advertising Work? Measuring the Effects of Advertising on Sales via a Controlled Experiment on Yahoo!—◆David Reiley, Yahoo! Research; Randall Lewis, Yahoo! Research

591 CC-216 (West)

■Air Quality and Health Effects—Contributed

Section on Statistics and the Environment

Chair(s): Elizabeth Shamseldin, Duke University

2:05 p.m. Some Applications of the Nonparametric Regression Model to Air Pollution Data—◆Javier Olaya, Universidad del Valle

2:20 p.m. Modification by Frailty Status of the Respiratory Health Effects of Air Pollution in Older Adults—◆Sandrah P. Eckel, University of Southern California; Thomas Louis, Johns Hopkins Bloomberg School of Public Health; Karen Bandeen-Roche, Johns Hopkins Bloomberg School of Public Health; Paulo H. Chaves, Johns Hopkins Bloomberg School of Public Health; Helene G. Margolis, University of California, Davis; Linda P. Fried, Columbia University Mailman School of Public Health

2:35 p.m. Methodological Challenges in Linking NHANES Biomarker Data with Ambient Air Data and Surrogate Measures of Traffic-Related Air Pollution—◆Sorina Eftim, University of Maryland; Amir Sapkota, University of Maryland; Jennifer Parker, National Center for Health Statistics

2:50 p.m. A Class of Covariate-Dependent Covariance Functions for the Analysis of Spatio-Temporal Data—◆Michele Guindani, University of New Mexico; Brian Reich, North Carolina State University; Jo Eidsvik, Norwegian University of Science and Technology; Alexandra Schmidt, Universidade Federal do Rio de Janeiro; Amy Nail, North Carolina State University

3:05 p.m. The Effect of Light on the Growth and Morphology of the Threatened Seagrass Halophila johnsonii—◆Dexter C. Whittinghill, Rowan University; Courtney E. Richmond, Rowan University; Kamille K. Hammerstrom, Moss Landing Marine Laboratories

3:20 p.m. Floor Discussion

592 CC-119 (West)

■Topics in Infectious Disease Modeling—Contributed

Section on Statistics in Epidemiology, Biometrics Section

Chair(s): Summer S. Han, National Cancer Institute

2:05 p.m. Finite Mixtures of Individual-Level Models for Infectious Diseases—◆Rob Deardon, University of Guelph; Lorna Deeth, University of Guelph

2:20 p.m. Linear Approximations of Individual-Level Models for Infectious Disease—◆Grace Pui Sze Kwong, University of Guelph; Rob Deardon, University of Guelph

2:35 p.m. Estimating Transmission Rates on a Network—◆Rachel Schutt, Google; Regina Dolgoarshinnykh, Columbia University

2:50 p.m. Iterated Filtering and Its Application in Modeling Infectious Disease Dynamics—◆Anindya Bhadra, University of Michigan; Edward Ionides, University of Michigan; Karina Laneri, University of Michigan; Mercedes Pascual, University of Michigan

3:05 p.m. Estimating Case Fatality Ratios from Infectious Disease Surveillance Data—◆Nicholas G. Reich, The Johns Hopkins University; Justin Lessler, The Johns Hopkins University; Ron Brookmeyer, The Johns Hopkins University

3:20 p.m. Estimation of Odds Ratio with Rare Event Case: A Simulation Study Based on Hospitalized Flu Vaccine Study—Qingxia Chen, Vanderbilt University; ◆Yuwei Zhu, Vanderbilt University; Helen K.B. Talbot, Vanderbilt University; Marie R. Griffin, Vanderbilt University; Kathryn M. Edwards, Vanderbilt University

3:35 p.m. Floor Discussion

593 CC-218/219 (West)

■ Issues with Data Collection and Processing: Editing, Enumeration, and Incentives—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section

Chair(s): Joseph P. McMichael, RTI International

2:05 p.m. Coordinated Collection for Computer-Assisted Personal Interviewing (CAPI)—◆Lihua An, Statistics Canada; Guy Laflamme, Statistics Canada

2:20 p.m. Probabilistic Approach to Editing—◆Maiki Ilves, Örebro University

2:35 p.m. Evaluating Incentive Effects in the National Health Study for a New Generation of U.S. Veterans Survey—◆Pablo Aliaga, Health Research and Analysis; Steven Coughlin, U.S. Department of Veterans Affairs; Samar DeBakey,

Health Research and Analysis; Patricia Vanderwolf, Abt SRBI; Shannon Barth, U.S. Department of Veterans Affairs; Stephanie Eber, U.S. Department of Veterans Affairs; Jessica Maillard, U.S. Department of Veterans Affairs; Meredith Williams, HMS Technologies; Aaron Schneiderman, U.S. Department of Veterans Affairs

2:50 p.m. Respondent Incentives: Do They Bring Different Respondents to the Data Table?—◆Alicia M. Frasier, NORC; Heather M. Morrison, NORC; Kathleen B. Santos, NORC

3:05 p.m. Estimating Nonsampling Errors in Estimates of Omissions and Erroneous Enumerations in the 2010 Census—◆Mary H. Mulry, U.S. Census Bureau; Bruce D. Spencer, Northwestern University

3:20 p.m. Ensuring Data Quality in the 2011 Canadian Census—◆Yves Beland, Statistique Canada

3:35 p.m. Floor Discussion

594 CC-114/115 (West)

■ ✪ Coverage Bias in RDD Surveys: Comparisons with Address-Based and Web Samples—Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section
Chair(s): Lars Lyberg, Statistics Sweden

2:05 p.m. Arbitron's Hybrid Sampling Frame Approach Balances Coverage and Response—◆Alan R. Tupek, Arbitron Inc.

2:20 p.m. Sampling Children and Teens in a Cell Phone Health Survey—◆David Grant, University of California, Los Angeles Center for Health Policy Research; Sunghee Lee, University of California, Los Angeles Center for Health Policy Research; Royce Park, University of California, Los Angeles Center for Health Policy Research; J. Michael Brick, Westat; W. Sherman Edwards, Westat; W. Sherman Edwards, Westat

2:35 p.m. Noncoverage Bias in Household Landline Telephone Surveys: The BRFSS Experience—◆Lina Balluz, CDC; Shaohua Sean Hu, CDC; Michael P. Battaglia, Abt Associates, Inc.; Martin R. Frankel, Baruch College, CUNY

2:50 p.m. Is ABS a Viable Alternative to RDD?—◆Karol Krotki, RTI International

3:05 p.m. An Examination of the Bias Effects with a Two-Phase Address-Based Sample—◆Daifeng Han, Westat; Jill Montaquila, Westat; Douglas Williams, Westat; J. Michael Brick, Westat

3:20 p.m. Comparing Web Panel Samples vs. Telephone Samples of Medical Doctors—◆Lin Chiat Chang, Lin Chiat Chang Consulting, LLC; Jeremy Brody, Kantar Health

3:35 p.m. Evaluating the Need for Purging Listed Business Phone Numbers—◆Shaohua Sean Hu, CDC; Brian F. Head, RTI International; Lina Balluz, CDC

595 CC-116 (West)

■ Health Science Applications—Contributed

Section on Statistics in Epidemiology
Chair(s): William E. Barlow, Cancer Research and Biostatistics (CRAB)

2:05 p.m. Adjusting for Selection Bias in Neuropathology Studies of Dementia: The Challenge of Trying to Extrapolate from the Dead to the Living—◆Steven P. Millard, Veterans Affairs Puget Sound Health Care System; Mary Lou Thompson, University of Washington

2:20 p.m. Statistical Impact on Managed Care Negotiations: Level of Follow-Up and Relevant Endpoints—◆Gary A. Cline, ICON plc

2:35 p.m. Marginal Analysis of Linear Model with Application to Testing for Resting Energy Expenditure Model—◆Junyi Zhang, Columbia University; ZiMian Wang, St. Luke's-Roosevelt Hospital; Zhiliang Ying, Columbia University

2:50 p.m. Methodology to Assess Healthy Life-Years in Life Expectancy Disparity—◆Charles Lin, U.S. Census Bureau; Norman Johnson, U.S. Census Bureau; Norman Johnson, U.S. Census Bureau; Norman Johnson, U.S. Census Bureau

3:05 p.m. Statistical Design, Sampling Weights, and Weight Adjustments of the School Physical Activity and Nutrition (SPAN) Population-Based Surveillance 2009–2010 Study—◆Adriana Perez, The University of Texas School of Public Health; Deanna M. Hoelscher, Michael & Susan Dell Center for Advancement of Healthy Living; Ralph F. Frankowski, The University of Texas School of Public Health; R. Sue Day, The University of Texas School of Public Health; Eun Sul Lee, Oregon Health & Science University

3:20 p.m. Discovering Personalized Therapy for Cystic Fibrosis by Reinforcement Learning—◆Yiyun Tang, The University of North Carolina at Chapel Hill; Michael Kosorok, The University of North Carolina at Chapel Hill

3:35 p.m. Floor Discussion

Invited Session 4:00 p.m.–5:50 p.m.

596 CC-Ballroom AB (West)

COPSS Awards and Fisher Lecture—Invited

ASA, ENAR, IMS, SSC, WNAR, International Chinese Statistical Association, International Indian Statistical Association
Organizer(s): Bhramar Mukherjee, University of Michigan
Chair(s): Xihong Lin, Harvard University

4:05 p.m. Likelihoods with Hidden Variables—◆Bruce G. Lindsay, Penn State

5:30 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

THURSDAY, AUGUST 5

Committee/Business Meetings & Other Activities

7:00 a.m.–10:30 a.m. CC-West Registration
Cyber Center

7:00 a.m.–10:30 a.m. CC-103/104 (West)
Speaker Management Room

7:30 a.m.–10:00 a.m. CC-West Registration
ASA Marketplace

7:30 a.m.–10:30 a.m. CC-West Registration
JSM Main Registration

7:30 a.m.–10:30 a.m. CC-West Registration
ASA Membership/Special Assistance/Press Desk

8:00 a.m.–9:30 a.m. FW-MacKenzie II
Council of Sections Response Meeting
Chair(s): Sarah Nusser, Iowa State University

8:00 a.m.–1:00 p.m. CC-West Registration
JSM Luggage Storage

9:30 a.m.–10:30 a.m. FW-MacKenzie II
Council of Sections Governing Board Debriefing Meeting
Chair(s): Sarah Nusser, Iowa State University

Invited Sessions 8:30 a.m.–10:20 a.m.

597 CC-109 (West)

Nonparametric Bayes Beyond the Dirichlet Process—Invited

Section on Bayesian Statistical Science, IMS, Section on Nonparametric Statistics, Section on Statistical Learning and Data Mining
Organizer(s): Peter Mueller, MD Anderson Cancer Center
Chair(s): Peter Mueller, MD Anderson Cancer Center

8:35 a.m. Gibbs-Type Priors for Bayesian Nonparametric Inference on Species Variety—Stefano Favaro, University of Turin; ◆Antonio Lijoi, University of Pavia; Ramses Mena, IIMAS-UNAM; Igor Pruenster, University of Turin

9:00 a.m. A Natural Nonparametric Generalization of Parametric Statistical Models—◆Timothy Edward Hanson, University of Minnesota

9:25 a.m. Distance-Based Probability Distributions on Set Partitions for Bayesian Nonparametric Models—◆David Dahl, Texas A&M University; Ryan Day, University of the Pacific; Jerry Tsai, University of the Pacific

9:50 a.m. Disc: Michele Guindani, University of New Mexico

10:10 a.m. Floor Discussion

598 CC-209 (West)

■ ✪ Adaptive Design: Balancing Between Hype and Hope—Invited

ENAR, Biopharmaceutical Section
Organizer(s): Valerii Fedorov, GlaxoSmithKline
Chair(s): Valerii Fedorov, GlaxoSmithKline

8:35 a.m. Adaptive Designs for Dose-Ranging Studies—◆Vladimir Dragalin, Pfizer Inc.

9:00 a.m. Bayesian Adaptive Designs in Practice—◆Scott Berry, Berry Consultants, LLC; Jason Connor, Berry Consultants, LLC

9:25 a.m. Issues to Consider in Selecting a Response-Adaptive Design for Dose-Finding Experiments—◆Nancy Flournoy, University of Missouri

9:50 a.m. Disc: Sue-Jane Wang, FDA

10:10 a.m. Floor Discussion

599 CC-201 (West)

■ ✪ Key Statistical Innovations in Data Mining of Genomics and Genetics Data—Invited

Section on Statistical Learning and Data Mining, Biometrics Section, Committee on Applied Statisticians, IMS, International Chinese Statistical Association
Organizer(s): Ilana Belitskaya-Levy, New York University School of Medicine
Chair(s): Mengling Liu, New York University School of Medicine

8:35 a.m. Penalized Regression Methods for Ranking Variables by Effect Size, with Applications to Genetic Mapping Studies—Nam-Hee Choi, University of Michigan; Kerby Shedden, University of Michigan; ◆Ji Zhu, University of Michigan

8:55 a.m. Genomewide Association Studies in Mixed Populations—◆Hua Tang, Stanford University

9:15 a.m. Inference with Transposable Data: Modeling the Effects of Row and Column Correlations—◆Genevera I. Allen, Stanford University; Rob Tibshirani, Stanford University

9:35 a.m. *P*-Values or Prediction Errors: What Is the Name of the Game in Genomics?—◆Rafal Kustra, University of Toronto

9:55 a.m. Disc: Tian Zheng, Columbia University
10:15 a.m. Floor Discussion

600 CC-118 (West)

✪ Toward Higher-Order, More Accurate Inference—Invited

IMS, General Methodology
Organizer(s): Zhiqiang Tan, Rutgers University
Chair(s): Zhiqiang Tan, Rutgers University

8:35 a.m. Some Risks with Bayes and Some Higher-Order Truths—◆Donald A.S. Fraser, University of Toronto
9:05 a.m. More Accurate Inference with Small Bandwidths—◆Whitney Newey, MIT
9:35 a.m. Higher-Order Influence Functions and Minimax Estimation of Nonlinear Functionals—◆James Robins, Harvard School of Public Health
10:05 a.m. Floor Discussion

601 CC-210 (West)

✪ Statistical Machine Learning and High-Dimensional Data Analysis—Invited

Section on Statistical Computing, IMS
Organizer(s): Yufeng Liu, The University of North Carolina at Chapel Hill
Chair(s): Yichao Wu, North Carolina State University

8:35 a.m. Semiparametric Prior Models for High-Dimensional Data—◆Marina Vannucci, Rice University
9:00 a.m. Estimation of Multiple Noncrossing Quantile Regression Functions—◆Yufeng Liu, The University of North Carolina at Chapel Hill; Yichao Wu, North Carolina State University
9:25 a.m. Asymptotic Theory for Q-Learning with Support Vector Regression Under Right Censoring—◆Yair Goldberg, The University of North Carolina at Chapel Hill; Michael Kosorok, The University of North Carolina at Chapel Hill; Donglin Zeng, The University of North Carolina at Chapel Hill; Yufan Zhao, Amgen Inc.
9:50 a.m. A Conditional Test for Heteroassociation—◆Joseph Stephen Verducci, The Ohio State University
10:15 a.m. Floor Discussion

602 CC-211 (West)

■ Risk Stratification Markers: Applications to Public Health and Clinical Medicine—Invited

Section on Statistics in Epidemiology, Biometrics Section, Health Policy Statistics Section, WNAR
Organizer(s): Estelle Russek-Cohen, FDA
Chair(s): Ruth Pfeiffer, National Cancer Institute

8:35 a.m. Risk Models for Deciding Whether to Take Tamoxifen to Prevent Breast Cancer and for Allocating Public Health Resources—◆Mitchell H. Gail, National Cancer Institute
9:00 a.m. Risk Stratification Markers in Clinical Practice: An FDA Perspective—◆Estelle Russek-Cohen, FDA
9:25 a.m. Using Cardiovascular Disease Risk Functions in Public Health and Clinical Trial: The Framingham Study Experience—◆Ralph B. D'Agostino Sr., Boston University
9:50 a.m. Disc: Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center
10:10 a.m. Floor Discussion

603 CC-306 (West)

■ ✪ New Frontiers in Integrative Genomic Analysis—Invited

WNAR, Biometrics Section, ENAR, IMS, International Chinese Statistical Association
Organizer(s): Adam B. Olshen, University of California, San Francisco; Ronglai Shen, Memorial Sloan-Kettering Cancer Center
Chair(s): Adam B. Olshen, University of California, San Francisco

8:35 a.m. A Random Coefficients Model for Regional Coexpression Associated with DNA Copy Number Aberrations—◆Wessel Van Wieringen, VU University Medical Center
9:00 a.m. Integrative Clustering of Multiple Genomic Data Types Using a Regularized Joint Latent Variable Model—◆Ronglai Shen, Memorial Sloan-Kettering Cancer Center; Adam B. Olshen, University of California, San Francisco; Sijian Wang, University of Wisconsin-Madison
9:25 a.m. A Penalized Matrix Decomposition, with Applications to Sparse Principal Components and Canonical Correlation Analysis—◆Daniela Witten, Stanford University; Rob Tibshirani, Stanford University; Trevor Hastie, Stanford University
9:50 a.m. Space-Oriented Rank-Based Data Integration—◆Shili Lin, The Ohio State University
10:15 a.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

604 CC-110 (West)

■ ✪ Frontiers of Financial Statistics—Invited

Business and Economic Statistics Section, IMS
Organizer(s): Yingying Li, Hong Kong University of Science and Technology
Chair(s): Yazhen Wang, University of Wisconsin-Madison

8:35 a.m. Realized Volatility When Sampling Times Can Be Endogenous—Yingying Li, Hong Kong University of Science and Technology; Per Mykland, The University of Chicago; Eric Renault, The University of North Carolina at Chapel Hill; Lan Zhang, University of Illinois at Chicago; ◆Xinghua Zheng, Hong Kong University of Science and Technology

9:00 a.m. Localized Realized Volatility Modeling—◆Ying Chen, National University of Singapore; Wolfgang Haerdle, Humboldt University in Berlin; Uta Pigorsch, Universitaet Mannheim

9:25 a.m. Quasi-Maximum Likelihood Estimation of Volatility with High-Frequency Data—◆Dacheng Xiu, Princeton University

9:50 a.m. Studying the Leverage Effect Based on High-Frequency Data—Yacine Ait-Sahalia, Princeton University; Jianqing Fan, Princeton University; ◆Yingying Li, Hong Kong University of Science and Technology

10:15 a.m. Floor Discussion

605 CC-120 (West)

■ Environmental Statistics in the Real World: Research from Scientists at Government Agencies—Invited

Section on Statistics and the Environment, *CHANCE*, International Chinese Statistical Association, Section on Physical and Engineering Sciences
Organizer(s): Veronica J. Berrocal, Statistical and Applied Mathematical Sciences Institute
Chair(s): Veronica J. Berrocal, Statistical and Applied Mathematical Sciences Institute

8:35 a.m. Improved Space-Time Forecasting of Next-Day Ozone Concentrations in the Eastern United States—◆David Holland, U.S. Environmental Protection Agency

8:50 a.m. Canadian Water Quality Index: Statistical Uncertainty and New Proposals—◆Abdel H. El-Shaarawi, National Water Research Institute; Sylvia R. Esterby, The University of British Columbia, Okanagan

9:05 a.m. Statistical Inference for Food Webs—◆Grace Chiu, CSIRO; Joshua Gould, Dalhousie University; Anton H. Westveld, University of Nevada at Las Vegas

9:20 a.m. Found in Translation: Statistics as a Common Language Between Atmospheric Modelers and Environmental Epidemiologists—◆James Lewis Crooks, U.S. Environmental Protection Agency

9:35 a.m. Disc: Tanja Srebotniak, Ecologic Institute

9:50 a.m. Disc: Paul Sampson, University of Washington

10:05 a.m. Floor Discussion

606 CC-215 (West)

■ ✪ Evaluation of Risk Prediction—Invited

Biometrics Section, IMS, Health Policy Statistics Section, Section on Risk Analysis, WNAR
Organizer(s): Shulamith Gross, Baruch College, CUNY
Chair(s): Shulamith Gross, Baruch College, CUNY

8:35 a.m. On the Ability of Breast Cancer-Associated SNPs to Augment Clinical Variables in Predicting Breast Cancer Risk—◆Ross L. Prentice, Fred Hutchinson Cancer Research Center; David A. Hinds, Perlegen Sciences

9:05 a.m. Study Designs for Evaluating Personal Risk Models—◆Alice S. Whittemore, Stanford University

9:35 a.m. Evaluation of Probability Forecasts: An Empirical Bayes Approach—◆Tze Leung Lai, Stanford University; Shulamith Gross, Baruch College, CUNY

10:35 a.m. Floor Discussion

607 CC-223 (West)

Memorial Session for Steve Lagakos—Invited

Memorial
Organizer(s): Tianxi Cai, Harvard School of Public Health
Chair(s): Marvin Zelen, Harvard School of Public Health

8:35 a.m. AIDS and Quantitative Methods—◆Dennis O. Dixon, National Institute of Allergy and Infectious Diseases

9:05 a.m. Survival Methods/Clinical Trials—◆L. J. Wei, Harvard University

9:35 a.m. Steve Lagakos: An Expert Guide for General Medical Readers Through a Statistical Labyrinth—◆Jeff Drazen, Harvard Medical School/*New England Journal of Medicine*

10:05 a.m. Floor Discussion

Topic-Contributed Sessions 8:30 a.m.–10:20 a.m.

608 CC-203 (West)

■ ✪ Quantitative Horizon Scanning—Topic-Contributed

Section on Statistics in Defense and National Security
Organizer(s): Jeffrey Solka, Naval Surface Warfare Center
Chair(s): Kristin Ash, Naval Surface Warfare Center

8:35 a.m. Exploratory Data Analysis on Document Collections—◆Jeffrey Solka, Naval Surface Warfare Center; Avory Bryant, Navy

8:55 a.m. Emerging Trend Detection in the Scientific Literature—◆Nicholas Tucey, Naval Surface Warfare Center

9:15 a.m. Horizon-Scanning Experiments on Scientific Literature—◆Avory Bryant, Navy

9:35 a.m. Quantitative Horizon Scanning in Coauthorship Networks—◆David J. Marchette, Naval Surface Warfare Center; Carey E. Priebe, The Johns Hopkins University

9:55 a.m. Disc: Elizabeth Hohman, Naval Surface Warfare Center

10:15 a.m. Floor Discussion

609 CC-119 (West)

■ ✪ Statistical Methods for Microarray Studies—Topic-Contributed

Biometrics Section

Organizer(s): Chang Yu, Vanderbilt University Medical Center
Chair(s): Xinlei Wang, Southern Methodist University

8:35 a.m. Discovery and Validation of Gene Coexpression Groups Affecting a Trait—◆Cheng Cheng, St. Jude Children's Research Hospital

8:55 a.m. A New Procedure to Identify Neighborhoods of Adjacent SNPs That Show a Specific Biologically Meaningful Pattern of Associations with Multiple Clinical Endpoints—◆Stan Pounds, St. Jude Children's Research Hospital

9:15 a.m. Regression and Classification with Gene Networks—◆Wei Pan, University of Minnesota; Xiaotong Shen, University of Minnesota

9:35 a.m. Distributions for *p*-Values—Daniel Zelterman, Yale University; ◆Chang Yu, Vanderbilt University Medical Center

9:55 a.m. Bayesian Joint Modeling of Multiple Gene Networks and Diverse Genomic Data to Identify Target Genes of a Transcription Factor—◆Peng Wei, The University of Texas School of Public Health; Wei Pan, University of Minnesota

10:15 a.m. Floor Discussion

610 CC-302/303 (West)

■ ✪ Modern Methods of Analyzing Clustered Data from the Health Sciences—Topic-Contributed

WNAR, Biometrics Section

Organizer(s): Weng Kee Wong, University of California, Los Angeles
Chair(s): Joan Hilton, University of California, San Francisco

8:35 a.m. A Relative Measure of Effect Size for Paired Data Generalizing the Wilcoxon Matched-Pairs Signed-Ranks Test Statistic—◆Robert Gordon Newcombe, Cardiff University

8:55 a.m. A Unified Approach to Simple Confidence Intervals for a Dozen Parameters Arising from the One-Way Random Effects Model—◆Guangyong Zou, The University of Western Ontario; Allan Donner, The University of Western Ontario; Julia Taleban, The University of Western Ontario

9:15 a.m. Modeling Intraclass Correlation in the Design of Cluster-Randomized Trials with Binary Outcomes—◆Catherine M. Crespi, University of California, Los Angeles; Weng Kee Wong, University of California, Los Angeles

9:35 a.m. Estimation and Model Selection in a Class of Semiparametric Models for Longitudinal Data—◆Jialiang Li, National University of Singapore

9:55 a.m. Analysis of Correlated Data and Time-to-Event Using the Markov Chain Imbedding Approach—◆Wendy Lou, University of Toronto

10:15 a.m. Floor Discussion

611 CC-221 (West)

Student Paper Competition Winners—Topic-Contributed

Social Statistics Section, Section on Government Statistics, Section on Survey Research Methods

Organizer(s): Joseph J. Salvo, New York City Department of City Planning
Chair(s): Casey Corcoran, U.S. Census Bureau

8:35 a.m. Random Group Variance Estimators for Survey Data with Imputation—◆Qi Tang, University of Wisconsin-Madison; Jun Shao, University of Wisconsin-Madison

8:55 a.m. The Impact of Measurement Error in Auxiliary Variables on Model-Based Estimation of Finite Population Totals: A Simulation Study—◆Brady West, Institute for Social Research

9:15 a.m. New Data Dissemination Approaches in Old Europe: Synthetic Data Sets for a German Establishment Survey—◆Joerg Drechsler, Institute for Employment Research

9:35 a.m. Descriptive Comparison of Populations by Rates: The Analysis of Departures from the Equirates Model—◆Mauricio Sadinle, Universidad Nacional de Colombia

9:55 a.m. On the Debate Over Models vs. Randomization in Survey Sampling Inference: The Arguments for Design Consistency as a Unifying Principle—◆Joel Edward Hanson, University of California, Berkeley

10:15 a.m. Floor Discussion

612 CC-219 (West)

■ ✪ Some Recent Studies in Transportation Statistics—Topic-Contributed

Social Statistics Section, Section on Government Statistics, Transportation Statistics Interest Group

Organizer(s): Promod Chandhok, Bureau of Transportation Statistics
Chair(s): Karl Sieber, National Institute for Occupational Safety and Health

8:35 a.m. Comparison of Hauer's EB Method, Causal Inference Methods, and a Full Bayesian Method for Estimating Countermeasure Effectiveness in Transportation Safety Studies—◆Courtney Bokenkroger, Midwest Research Institute

8:55 a.m. Modeling Teen Driving Behavior—◆Feng Guo, Virginia Tech

9:15 a.m. Driving Performance While Engaged in Distracting Tasks: The Effects on Drivers with Traumatic Brain Injuries—Linda Ng Boyle, University of Washington; ◆David Neyens, The University of Iowa; Kevin Manning, Drexel University; Jocelyn Ang, Drexel University; Maria Schultheis, Drexel University

9:35 a.m. Is Accepting Proxies in the 2009 National Household Travel Survey Beneficial?—◆Promod Chandhok, Bureau of Transportation Statistics

9:55 a.m. Disc: Michael Cohen, NORC

10:15 a.m. Floor Discussion

613 CC-122 (West)

■ Issues in Cross-Cultural and Comparative Questionnaire Design, Pretesting, and Administration—Topic-Contributed

Section on Survey Research Methods
Organizer(s): Gordon Willis, National Cancer Institute
Chair(s): Joanne Pascale, U.S. Census Bureau

8:35 a.m. Issues in Cross-Cultural and Comparative Questionnaire Design, Pretesting, and Administration—◆Gordon Willis, National Cancer Institute

8:55 a.m. Developing Multilingual Questionnaires: A Sociolinguistic Perspective—◆Yuling Pan, U.S. Census Bureau

9:15 a.m. Analysis of Chinese Speakers' Responses to Survey Intention Questions—◆Anna Yukyee Chan, U.S. Census Bureau; Yuling Pan, U.S. Census Bureau

9:35 a.m. A Mixed-Method Approach for Measurement Construction for Cross-National Studies—◆Kristen S. Miller, National Center for Health Statistics; Aaron Maitland, National Center for Health Statistics

9:55 a.m. Floor Discussion

614 CC-222 (West)

■ Recent Research on Current Population Survey Methodology—Topic-Contributed

Section on Survey Research Methods, Section on Government Statistics, Social Statistics Section
Organizer(s): Samson Adeshiyan, U.S. Census Bureau
Chair(s): Samson Adeshiyan, U.S. Census Bureau

8:35 a.m. Applying a Family Equalization Adjustment for Householder Weighting for the Current Population Survey—◆Andrew Zbikowski, U.S. Census Bureau

8:55 a.m. Sample Correlations of the Current Population Survey Labor Force Characteristics—◆Reid Rottach, U.S. Census Bureau

9:15 a.m. Current Population Survey Correlations Inside and Outside the Phase In/Phase Out Period—◆Antoinette Lubich, U.S. Census Bureau; Reid Rottach, U.S. Census Bureau

9:35 a.m. Improved Friedman-Rubin's Clustering Algorithm Based on Wilks' Lambda Criterion—◆Khandaker Mansur, U.S. Census Bureau; Benjamin Reist, U.S. Census Bureau; Patrick Flanagan, U.S. Census Bureau

9:55 a.m. Using Latent Class Models to Better Understand Reliability in Measures of Labor Force Status—◆Bac Tran, U.S. Census Bureau

10:15 a.m. Floor Discussion

615 CC-301 (West)

■ ✪ Customer Intelligence—Topic-Contributed

Section on Statistics and Marketing
Organizer(s): Dirk Van den Poel, Ghent University
Chair(s): Dirk Van den Poel, Ghent University

8:35 a.m. How Does a Customer Walk and Buy Goods in a Supermarket?—Keiji Takai, Kansai University; ◆Katsutoshi Yada, Kansai University

8:55 a.m. Data Augmentation by Updating Long-Term CRM Models with Day-Specific Meteorological Conditions—◆Philippe Baecke, Ghent University; Dirk Van den Poel, Ghent University

9:15 a.m. Customer Churn Prediction: Does Technique Matter?—◆Wouter Verbeke, Katholieke Universiteit Leuven; Karel Dejaeger, Katholieke Universiteit Leuven; David Martens, Katholieke Universiteit Leuven; Bart Baesens, Katholieke Universiteit Leuven

9:35 a.m. Trajectory Mining for Laboratory Examination Data Sets—◆Shoji Hirano, Shimane University; Shusaku Tsumoto, Shimane University

9:55 a.m. Floor Discussion

617 CC-216 (West)

■ The Quality of Administrative Records Used for Frames or Statistical Estimation—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): Kimberly Lochner, National Center for Health Statistics
Chair(s): Bill Iwig, National Agricultural Statistics Service

8:35 a.m. Evaluation of Administrative Record Quality in the U.S. Federal Statistical System—◆Jenna Fulton, Joint Program in Survey Methodology; Frauke Kreuter, University of Maryland

8:55 a.m. Are 911 Listings Good Enough to Use as a Sampling Frame for Area Surveys?—◆David A. Marker, Westat

9:15 a.m. Assessing an Administrative Data Source as a Sampling Frame—◆Wendy J. Barboza, National Agricultural Statistics Service; Bill Iwig, National Agricultural Statistics Service

9:35 a.m. Record Linkage of NCHS Surveys with SSA Administrative Data: A Demonstration of New Record-Matching Methodology That Utilizes Partial SSN in the Enumeration Verification System—Bert Kestenbaum, Social Security Administration; ◆Kimberly Lochner, National Center for Health Statistics; Christine S. Cox, National Center for Health Statistics

9:55 a.m. An Evaluation of Data from the Teacher Compensation Survey: School Year 2006–07—◆Stephen Q. Cornman, National Center for Education Statistics; Frank Johnson, National Center for Education Statistics

10:15 a.m. Floor Discussion

618 CC-214 (West)

Biomarker Evaluation and ROC Analysis—Topic-Contributed

Health Policy Statistics Section, ENAR

Organizer(s): Nan Hu, The University of Utah
Chair(s): Roseann White, Abbott Vascular

8:35 a.m. Coherent Analysis of Longitudinal Changes in Biomarkers in the Presence of Attrition Due to Competing Risks —◆Tom Greene, The University of Utah

8:55 a.m. Semiparametric Regression Methods of Time-Dependent ROC Curve for Evaluating the Prognosis Capacity of Biomarkers —◆Nan Hu, The University of Utah; Xiao-Hua Zhou, University of Washington

9:15 a.m. Some Sources of Bias and Instability in Binary Imputation by Dichotomization of Model-Based Predicted Probabilities: A Simulation-Based Study —◆Peter Richardson, Houston VA Medical Center

9:35 a.m. Pregnancy and Overestimation of Perfect Condom Use —◆Janet Rosenbaum, Johns Hopkins Bloomberg School of Public Health; Ralph DiClemente, Emory University; Eve Rose, Emory University; Gina Wingood, Emory University; Jonathan Zenilman, Johns Hopkins Medical Institutions

9:55 a.m. Nonparametric Estimation of the Covariate-Specific ROC Curve in Presence of Ignorable Verification Bias —◆Danping Liu, University of Washington; Xiao-Hua Zhou, University of Washington

10:15 a.m. Floor Discussion

619 CC-117 (West)

■ ✪ Recent Advances in Nonparametric Methods for Longitudinal and Functional Data—Topic-Contributed

Section on Nonparametric Statistics

Organizer(s): Xin Tian, National Institutes of Health
Chair(s): Marvin Zelen, Harvard School of Public Health

8:35 a.m. Joint Modeling of Paired Sparse Functional Data Using Principal Components—◆Lan Zhou, Texas A&M University; Jianhua Huang, Texas A&M University; Raymond Carroll, Texas A&M University

8:55 a.m. Time-Varying Transformation Models for Estimation of Conditional Distributions and Quantiles with Longitudinal Data—◆Xin Tian, National Institutes of Health

9:15 a.m. Semiparametric Approach to Quantile Regression for Random Coefficients Models—◆Mi-Ok Kim, Cincinnati Children's Hospital Medical Center

9:35 a.m. Conditional Quantile Analysis for Functional Covariates—◆Kehui Chen, University of California, Davis; Hans-Georg Müller, University of California, Davis

9:55 a.m. Disc: Colin Wu, National Heart, Lung, and Blood Institute

10:15 a.m. Floor Discussion

620 CC-212 (West)

Data Analysis Issues in Medical Device Studies—Topic-Contributed

Biopharmaceutical Section, ENAR

Organizer(s): Hsini Terry Liao, Boston Scientific Corporation; Terri Kang Johnson, FDA/CDRH
Chair(s): Peter Lam, Boston Scientific Corporation

8:35 a.m. Statistical Issues of Meta-Analysis Practices in Drug-Eluting Stent Data—◆Hsini Terry Liao, Boston Scientific Corporation

8:55 a.m. Analysis of Single-Arm Studies: Statistical Considerations of Study Site Variability from a Regulatory Perspective—◆Terri Kang Johnson, FDA/CDRH; Yunling Xu, FDA/CDRH

9:15 a.m. Improved Confidence Interval of the Difference of Paired Binomial Using Weighted Profile Likelihood—◆Vivek Pradhan, Boston Scientific Corporation

9:35 a.m. Heterogeneity in the Random-Effects Population—◆Chul Ahn, FDA/CDRH; Yunling Xu, FDA/CDRH

9:55 a.m. Floor Discussion

Topic-Contributed Panel
8:30 a.m.–10:20 a.m.

621 CC-224 (West)

Survey Data and Online Analysis Systems—Topic-Contributed

Section on Statistical Education, Section on Teaching of Statistics in the Health Sciences

Organizer(s): Katie Genadek, University of Minnesota
Chair(s): Patricia B. Humphrey, Georgia Southern University

Panelists: ◆Katie Genadek, University of Minnesota
◆JoAnne McFarland O'Rourke, University of Michigan
◆Marrill Shanks, University of California, Berkley
◆Tom W. Smith, NORC

10:15 a.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Contributed Sessions 8:30 a.m.–10:20 a.m.

622 CC-114 (West)

■ Clinical Trial Design—Contributed

Biometrics Section, Biopharmaceutical Section
Chair(s): Marc De Somer, Alkermes Inc. R&D

8:35 a.m. Design and Analysis of Cancer Stem Cell Clinical Trials—◆Jeanne Kowalski, The Johns Hopkins University; Carol Ann Huff, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins; Hua Ling Tsai, The Johns Hopkins University; B. Douglas Smith, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins; Richard J. Jones, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins; William Matsui, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins

8:50 a.m. Calibration in the Continual Reassessment Method for Phase I Clinical Trials—◆Shing M. Lee, Columbia University; Ying Kuen Cheung, Columbia University

9:05 a.m. Bayesian Decision-Theoretic Response Adaptive Group Sequential Design—◆Fei Jiang, MD Anderson Cancer Center; J. Jack Lee, MD Anderson Cancer Center

9:20 a.m. Sample Size Reestimation for Time-to-Event Data: An Application to Oncology Trials—◆Xiongce Zhao, National Institutes of Health; Qing Xu, FDA

9:35 a.m. Sequential Tite-CRM: Designing a Two-Dimensional Dose-Finding Trial—◆Matthew Schipper, University of Michigan; Edgar Ben-Josef, University of Michigan

9:50 a.m. Floor Discussion

623 CC-208 (West)

■ ✪ Next-Generation Sequencing—Contributed

Biometrics Section
Chair(s): Harry James Norton, Carolinas Medical Center

8:35 a.m. A Novel Genome Continuum Model for Sequence-Based Association Studies—◆Li Luo, The University of Texas School of Public Health; Momiao Xiong, The University of Texas School of Public Health

8:50 a.m. Inferring Alternative Splicing Gene Expression from Nextgen Sequencing Studies—◆David Rossell, IRB Barcelona

9:05 a.m. Cost-Effective Combinatorial Design for Rare-Disease Carrier Screen Using Next-Generation Sequencing Technology—◆Lingling An, The University of Arizona; Dear Pookhao, The University of Arizona

9:20 a.m. Simulation Study for Comparison and Evaluation of Differentially Expressed Gene-Detection Methods in mRNA-Seq—◆Sunghee Oh, Yale University; Hongyu Zhao, Yale University; James P. Noonan, Yale University

9:35 a.m. Model-Based Clustering for RNA-Seq Data—◆Yaqing Si, Iowa State University; Peng Liu, Iowa State University

9:50 a.m. The GNUMAP Project: Probabilistic Mapping of Next-Generation Sequencing Reads with Applications—◆W. Evan Johnson, Brigham Young University; Nathan Clement, Brigham Young University; Mark Clement, Brigham Young University; Quinn Snell, Brigham Young University

10:05 a.m. Floor Discussion

624 CC-113 (West)

■ Complex Censoring: Dependent, Double, and Interval Censoring—Contributed

Biometrics Section
Chair(s): Xiaofei Wang, Duke University

8:35 a.m. Semiparametric Linear Transformation Models for Interval-Censored Failure Time Data—◆Bin Zhang, The University of Alabama at Birmingham; Lianming Wang, University of South Carolina; Zhigang Zhang, Memorial Sloan-Kettering Cancer Center

8:50 a.m. Mixture Cure Model with Random Effects for Interval-Censored Survival Data—◆Liming Xiang, Nanyang Technological University; Xiangmei Ma, Nanyang Technological University

9:05 a.m. Quantile Regression Methods for Doubly Censored Data from Registry Studies—◆Shuang Ji, Emory University; Limin Peng, Emory University; Yu Cheng, University of Pittsburgh; Huichuan Lai, University of Wisconsin

9:20 a.m. Quantile Regression Adjusting for Dependent Censoring—◆Ruosha Li, Emory University; Limin Peng, Emory University

9:35 a.m. Floor Discussion

625 CC-217 (West)

Analysis Techniques for Crossover Trials—Contributed

Biopharmaceutical Section
Chair(s): Amit Bhattacharyya, GlaxoSmithKline

8:35 a.m. An Improved Analytic Method for 2x2 Crossover Trials with Potential Missing Data—◆Yu Ding, Merck Research Laboratories; Yang Liu, Merck Research Laboratories; Devan V. Mehrotra, Merck Research Laboratories; John Palcza, Merck Research Laboratories

8:50 a.m. Analysis of Right-Censored Time-to-Event Data in Crossover Studies—◆Yingwen Dong, Merck & Co., Inc.; Fang Liu, Merck Research Laboratories

9:05 a.m. Adjusting for Baseline Measurements in Crossover Studies—◆Chengcheng Liu, Merck & Co., Inc.; Lingling Han, Merck & Co., Inc.; Xiaodong Li, Merck & Co., Inc.; Peng Sun, Merck & Co., Inc.

9:20 a.m. Impact of Missing Data on the Analysis of Crossover Data—Anjela Tzontcheva, Merck & Co., Inc.; ◆Mahtab Marker, Merck & Co., Inc.

9:35 a.m. Selecting Covariance Structures in 3, 4, and 6 Period PK and PD Crossover Trials—◆Deborah Panebianco, Merck & Co., Inc.;Tom Bradstreet, Merck & Co., Inc.;Andrea Maes, Novartis Pharmaceuticals Corporation; Lata Maganti, Merck & Co., Inc.

9:50 a.m. How to Handle Placebo Data in Dosing Ranging Studies Using 2-by-2 Crossover Design—◆Xin Zhao, Merck & Co., Inc.

10:05 a.m. Floor Discussion

626 CC-105/106 (West)

■ Sample Size Determination and Re-estimation—Contributed

Biopharmaceutical Section
Chair(s):William Coar,Axio Research, LLC

8:35 a.m. Sample Size Determination for Two-Stage Equivalence Test—◆Mi-Chia Ma, National Cheng Kung University; Shang-Bo Ye, National Cheng Kung University

8:50 a.m. Sample Size Reestimation for a Mixed Patient Population on a Time-to-Event Endpoint After the Patient Population Was Changed During the Study—◆Liang Chen, Pfizer Inc.

9:05 a.m. Sample Size and Power for Truncated Bivariate Normal Distribution—◆Sourav Santra,Takeda Pharmaceutical Company Limited

9:20 a.m. Pros and Cons of Sample Size Readjustment in Confirmatory Oncology Trials—◆Pralay Mukhopadhyay, Bristol-Myers Squibb

9:35 a.m. Power and Sample Size Calculations for Drug Exposure Registries Using Exact Methods—◆Paul Schuette, FDA; Eugenio Andraca-Carrera, FDA; Matthew Jackson, FDA; Benjamin Neustifter, FDA

9:50 a.m. Sample Size Calculation Methods for a Negative Binomial Endpoint:Application to Phase 2 Trials in Multiple Sclerosis—◆Eunhee Hwang, Pfizer Inc.; Michael Miller, Pfizer Inc.

10:05 a.m. Floor Discussion

627 CC-107/108 (West)

■ Statistical Strategies Applied Across Therapeutic Areas—Contributed

Biopharmaceutical Section, ENAR
Chair(s):Veronica Taylor, FDA

8:35 a.m. Maximizing the Longitudinal Rate of Change with Multiple Outcome Measures to Improve the Design of Clinical Trials on Alzheimer's Disease—◆Chengjie Xiong, Washington University

8:50 a.m. Statistical Analysis Considerations in Device Trial Planning—◆Helen Marie Chmiel, Zimmer, Inc.; Kim Perry, Innovative Analytics

9:05 a.m. Considerations on the Study Design and Analysis of Vulvar and Vaginal Atrophy Studies—◆Ling Chen, FDA

9:20 a.m. Exploring the Relationship Between UGT1A1 Genotypes in Maternal Blood and Infant Blood Samples and Bilirubin Levels in a Clinical Trial of Pregnant Women Treated with Boosted ATV—Wenhua Hu, Bristol-Myers Squibb;Victoria Wirtz, Bristol-Myers Squibb; Eric Vandeloise, Bristol-Myers Squibb; Stjohn McGrath, Bristol-Myers Squibb;Timothy Eley, Bristol-Myers Squibb; Awny Farajallah, Bristol-Myers Squibb; ◆Shu-Pang Huang, Bristol-Myers Squibb

9:35 a.m. Hypoglycemia Data Analyses in Diabetes Studies—◆Yu Chen, Merck & Co., Inc.;Yue Shentu, Merck & Co., Inc.; Bret Musser, Merck Research Laboratories

9:50 a.m. Application of the Pattern Mixture Model to Mini Mental Status Exam (MMSE) Scores in a Radiation Therapy Oncology Group (RTOG) Trial for Brain Tumors—◆Kyounghwa Bae, Radiation Therapy Oncology Group; Seunghee Baek, University of Pennsylvania; James Dignam, Radiation Therapy Oncology Group

10:05 a.m. Floor Discussion

628 CC-111 (West)

✪ Applications Cross Section I—Contributed

Business and Economic Statistics Section
Chair(s): Michael A. Rutter, Penn State Erie,The Behrend College

8:35 a.m. Do Students Enrolled in Business Statistics Classes Meet Their Expectations?—◆Mammo Woldie,Texas Southern University

8:50 a.m. The Role of Strategic Planning in Higher Education: Case Studies of Institutions—◆Chandra Aleong, Delaware State University; J.Aleong, University of Vermont

9:05 a.m. Do Smaller Labor Market Entry Cohorts Really Reduce German Unemployment?—◆Carsten Pohl, Institute for Employment Research;Alfred Garloff, Institute for Employment Research; Norbert Schanne, Institute for Employment Research

9:20 a.m. University Careers Evolution:A Multistate Modeling for a Perspective Study of the Italian Situation—◆Matilde Bini, European University of Rome; Bruno Monastero, Politecnico di Torino; Margherita Velucchi, Università di Firenze

9:35 a.m. Students Evaluation of Faculty Teaching Performance: Is It a Valid Assessment?—◆Ephraim Okoro, Howard University; Mohammad A. Quasem, Howard University; Melvin Washington, Howard University

9:50 a.m. Floor Discussion

629 CC-213 (West)

■ ✪ Analysis of Complex Data: Imaging, Network, and Methylation—Contributed

ENAR, Biometrics Section

Chair(s): Jason Roy, University of Pennsylvania

8:35 a.m. Voxelwise Analysis of Imaging Response to Therapy in Neurooncology—◆Mengye Guo, Dana-Farber Cancer Institute; Jeffrey Yap, Dana-Farber Cancer Institute; Annick D. Van den Abbeele, Dana-Farber Cancer Institute; Nancy U. Lin, Dana-Farber Cancer Institute; Armin Schwartzman, Harvard School of Public Health

8:50 a.m. Application of Sparse PCA via Regularized SVD to Neuroimaging Data—◆Bedda L. Rosario, University of Pittsburgh; Lisa A. Weissfeld, University of Pittsburgh; Julie C. Price, University of Pittsburgh

9:05 a.m. On the Propagation of Uncertainty in Network Inference to Network Characterization—◆Eric Kolaczyk, Boston University; Weston Viles, Boston University

9:20 a.m. Dynamic Data Transformation and Its Application in Methylation Data Analysis—◆Aixiang Jiang, Vanderbilt University

9:35 a.m. Predicting Neural Spike Train Using Peers' Activities: Likelihood-Based Approach—◆Ruiwen Zhang, The University of North Carolina at Chapel Hill

9:50 a.m. Floor Discussion

630 CC-206 (West)

■ ✪ Statistical Applications: A Cross-National Approach—Contributed

Section on Government Statistics, Social Statistics Section

Chair(s): Jianghua (Wendy) He, The University of Kansas Medical Center

8:35 a.m. Demographic Trends in North Korea in the 20th Century and Beyond—◆Daniel M. Goodkind, U.S. Census Bureau; Loraine A. West, U.S. Census Bureau

8:50 a.m. Correlates of Armed Violence Within the Nation-State: Predicting Future Conflict with Varying Data—◆Michael Kisielewski, StatAid

9:05 a.m. Multilevel Models and Small-Area Estimation in the Context of Vietnam Living Standards Surveys—◆Dominique Haughton, Bentley University; Phong Nguyen, General Statistics Office, Hanoi; Irene Hudson, University of South Australia; John Boland, University of South Australia

9:20 a.m. Statistical Consulting with Developing Countries on Labor Force Surveys—◆Edwin L. Robison, Bureau of Labor Statistics

9:35 a.m. Patterns in ICT Growth and Development in Africa: A Kohonen Map Analysis—◆Olumayokun Soremekun, Bentley University; Charles Malgwi, Bentley University

9:50 a.m. Floor Discussion

631 CC-116 (West)

Nonparametric Group Comparisons—Contributed

Section on Nonparametric Statistics

Chair(s): Xianzheng Huang, University of South Carolina

8:35 a.m. Multivariate Nonparametric Two-Sample Tests for Mixed Outcomes—◆Denis Larocque, HEC Montreal; Jaakko Nevalainen, University of Turku; Hannu Oja, University of Tampere

8:50 a.m. Nonparametric Comparison for Panel Count Data with Unequal Observation Processes—◆Xingqiu Zhao, The Hong Kong Polytechnic University; Jianguo Sun, University of Missouri

9:05 a.m. A Hybrid Method in Combining Treatment Effects from Matched and Unmatched Studies—◆Jinyoung Byun, The University of Texas School of Public Health; Dejian Lai, The University of Texas School of Public Health; Sheng Luo, The University of Texas School of Public Health; Robert Hardy, The University of Texas School of Public Health

9:20 a.m. Model-Based Confidence Intervals for Binomial Proportion—◆Desale Habtzghi, The University of Akron; Chand Midha, The University of Akron; Ashish Das, Indian Institute of Technology, Bombay

9:35 a.m. Adaptive Two-Sample Rank Test in a Two-Stage Design—◆Yuqiu Jiang, Jilin Normal University; Xiaolong Luo, Celgene Corporation; Long Zhang, University of Florida; Samuel S. Wu, University of Florida

9:50 a.m. A Nonparametric Test to Compare Time Series in the Frequency Domain—◆Lei Jin, McNeese State University

10:05 a.m. A Comparison of Rank-Based Methods for Mixed Models—◆John Kloke, Bucknell University; Joseph W. McKean, Western Michigan University; M. Mushqur Rashid, FDA

632 CC-121 (West)

Computing-Intensive Nonparametric Inference—Contributed

Section on Nonparametric Statistics

Chair(s): Luigi Salmaso, University of Padova

8:35 a.m. Permutation Inference for a Class of Mixture Models—Francesca Solmi, University of Padova; ◆Stefano Bonnini, University of Ferrara; Luigi Salmaso, University of Padova

8:50 a.m. Parametric vs. Nonparametric Confidence Intervals for Multivariate Performance Indicators—◆Livio Corain, University of Padova; Rosa Arboretti, University of Padova

9:05 a.m. Bootstrap-Based Trans-Gaussian Kriging—◆Krista Rister, Texas A&M University; Soumendra Nath Lahiri, Texas A&M University

9:20 a.m. Exact Sample Size Calculations for Noninferiority Trials with Binomial Endpoints—Cyrus R. Mehta, Cytel Inc.; ◆Lingyun Liu, Cytel Inc.; Pralay Senchaudhuri, Cytel Inc.

9:35 a.m. Combination-Based Global Satisfaction Rankings—◆Rosa Arboretti, University of Padova; Livio Corain, University of Padova

9:50 a.m. Floor Discussion

633 CC-13 (East)

■ ✪ Experimental Design: Applications and Advances—Contributed

Section on Quality and Productivity
Chair(s): Christina Mastrangelo, University of Washington

8:35 a.m. Single-Stage Analysis of Means Under Heteroscedasticity—◆Miin-Jye Wen, National Cheng Kung University; Yi-Hsuan Tu, National Cheng Kung University; Tsai-Hsiang Hung, National Cheng Kung University

8:50 a.m. Using Weak and Strong Heredity to Generate Weighted Design Optimality Criteria for Response Surface Designs—◆Philip Turk, West Virginia University; John Borkowski, Montana State University; Boonorm Chomtee, Kasetsart University

9:05 a.m. Some Recent Advances on Quaternary-Code Designs—◆Frederick Kin Hing Phoa, Academia Sinica

9:20 a.m. Tests for High-Dimensional Regression Coefficients with Factorial Designs—◆Ping-Shou Zhong, Iowa State University; Song X. Chen, Iowa State University/Peking University

9:35 a.m. Statistical Analysis of RFID Tag Readability on a Conveyor Belt Using Factorial Design—Gokarna Aryal, Purdue University Calumet; ◆Lash Mapa, Purdue University Calumet

9:50 a.m. A Closer Look at Dorian Shainin's Variable Search Technique—◆Tirthankar Dasgupta, Harvard University; C.F. Jeff Wu, Georgia Institute of Technology; Nagesh Adiga, Georgia Institute of Technology

10:05 a.m. Optimal Design for Multifactor Life-Testing Experiments—◆Steven E. Rigdon, Southern Illinois University Edwardsville; Douglas C. Montgomery, Arizona State University; Rong Pan, Arizona State University; Connie M. Borror, Arizona State University West

634 CC-204 (West)

Statistical Testing—Contributed

Section on Statistical Computing
Chair(s): Susanne May, University of Washington

8:35 a.m. Estimating and Testing the Blocked Compound Symmetry Covariance Structure for Doubly Multivariate Data—◆Anuradha Roy, The University of Texas at San Antonio; Ricardo Leiva, Universidad Nacional de Cuyo

8:50 a.m. Decentralized Multihypothesis Sequential Detection—◆Yan Wang, Georgia Institute of Technology; Yajun Mei, Georgia Institute of Technology

9:05 a.m. Testing the Equality of the Distribution Functions for Two Populations—◆Charles L. Dunn, Miami University

9:20 a.m. Monte Carlo Study of Comparing Exact Inference Procedure for Comparing Multiple Treatments with One Control—◆Sungyoung Auh, National Institute of Neurological Disorders and Strokes; Jonghyeon Kim, Otsuka Pharmaceutical Development & Commercialization, Inc.

9:35 a.m. Test of Missing Data Mechanism—◆Keiji Takai, Kansai University

9:50 a.m. A Moderated Lawley-Hotelling–Type Trace Test for High-Dimensional Longitudinal Data: Its Application in Detecting Temporal Patterns in Time Course Microarray Data—◆Jemila Seid Hamid, Ontario Agency for Health Protection and Promotion; Joseph Beyene, Macmaster University; Dietrich von Rosen, Swedish University of Agricultural Sciences

10:05 a.m. A Nonparametric Approach to Multiple Testing—◆Nasrine Bendjilali, University of California, San Francisco; Wei-Min Huang, Lehigh University

635 CC-218/219 (West)

Topics in Statistical Distributions—Contributed

Section on Statistical Computing
Chair(s): Trent Lalonde, University of Northern Colorado

8:35 a.m. A Two-Parameter Generalized Exponential Distribution—◆Mian Arif Shams Adnan, Jahangirnagar University; Humayun Kiser, Jahangirnagar University

8:50 a.m. Wrapped Three Parameter Gamma Distribution—◆Shongkour Roy, Jahangirnagar University; Mian Arif Shams Adnan, Jahangirnagar University

9:05 a.m. A Weighted Logarithmic Distribution: Stretching the Long Tail—◆Michael Terry Anderson, The University of Texas at San Antonio; Ram C. Tripathi, The University of Texas at San Antonio

9:20 a.m. Finite Sample Properties of Minimum Kolmogorov-Smirnov Estimator and Maximum Likelihood Estimator for Right-Censored Data—◆Jerzy Wieczorek, U.S. Census Bureau; Jong Sung Kim, Portland State University

9:35 a.m. Conditional Moments of P(Y<X) for One-Parameter Assumed Distributions—◆Mohammed A. Shayib, Prairie View A&M University; Aliakbar Montazer Haghighi, Prairie View A&M University

9:50 a.m. Robust Estimation of Mixtures of Heavy-Tailed Distributions—◆A. M. Santos, IBM/University of Colorado Denver; Karen Kafadar, Indiana University

10:05 a.m. Floor Discussion

636 CC-205 (West)

■ ✪ Applications of Statistical Learning—Contributed

Section on Statistical Computing
Chair(s): Jianhui Zhou, University of Virginia

8:35 a.m. An Image Segmentation Algorithm with Applications to Image Inpainting—◆Ronny O. Vallejos, Universidad Tecnica Federico Santa Maria; Silvia M. Ojeda, Universidad Nacional de Cordoba; Oscar H. Bustos, Universidad Nacional de Cordoba

8:50 a.m. Gaussian Process Prediction of Computer Model Outputs with Nonconstant Variance in Systems Biology: A Plug-In Approach—◆Garrett Dancik, Northwestern State University

9:05 a.m. Aggregation of Sleeping Predictors to Forecast Electricity Consumption—◆Yannig Goude, EDF R&D; Stoltz Gilles, CNRS; Marie Devaine, ENS ulm

9:20 a.m. Detection of Cardiac Alternans via Statistical Analysis of Eigenvalues of a Dynamical System—◆Adam Petrie, University of Tennessee

9:35 a.m. Identifying General-Shaped Clusters Using the k-Means Algorithm—◆Anna D. Peterson, Iowa State University; Ranjan Maitra, Iowa State University; Arka Ghosh, Iowa State University

9:50 a.m. Exact Distributions and Sequential Monte Carlo for Change Points in Space-Time Systems with Application to Brain Imaging—◆John Aston, University of Warwick; Christopher Nam, University of Warwick; Adam Johansen, University of Warwick

10:05 a.m. Clustering Functional Data Using Wavelets—Jairo Cugliari, Universite Paris-Sud; ◆Xavier Brossat, EDF R&D; Anestis Antoniadis, University Joseph Fourier; Jean-Michel Poggi, Universite Paris-Descartes

637 CC-202 (West)

Longitudinal Data Mining—Contributed

Section on Statistical Learning and Data Mining
Chair(s): Crystal Linkletter, Brown University

8:35 a.m. Time Series Data Mining Through Automatic Forecasting and Decomposition—◆Shu-Ngai Yeung, AT&T Labs; Tom Siu-Tong Au, AT&T Labs; Guang Qin Ma, AT&T Labs; William Pepe, AT&T Labs

8:50 a.m. New Tuning Methods for the Architecture of Neural Network Model with Application to Bankruptcy Prediction—◆Chulwoo Jeong, Sogang University; Myung Suk Kim, Sogang University; Jae H. Min,

9:05 a.m. A Bayesian Self-Controlled Case Series Method for Large-Scale Longitudinal Data in Drug Safety Surveillance—◆Shawn Evelyn Simpson, Columbia University; David Madigan, Columbia University

9:20 a.m. Classification of Long Memory Processes: A Simulation Study—◆Ritaja Sur, University of Maryland; Benjamin Kedem, University of Maryland

9:35 a.m. Nonlinear Regression Modeling and Detecting Change Points via Regularized Basis Expansions—◆Shohei Tateishi, Kyushu University; Sadanori Konishi, Kyushu University

9:50 a.m. Anomaly Detection Using Fusion of Graph Invariants on a Time Series of Graphs—◆Youngser Park, The Johns Hopkins University; Carey E. Priebe, The Johns Hopkins University; Abdou Youssef, The George Washington University

10:05 a.m. Floor Discussion

638 CC-112 (West)

✪ Methods for Binary Outcome Data—Contributed

Section on Statistics in Epidemiology, Biometrics Section
Chair(s): Sherri Rose, University of California, Berkeley

8:35 a.m. Penalized EM in Binomial Models with Missing Categorical Covariates—◆John R. Stevens, Utah State University; Jeremiah Rounds, Purdue University; David I. Schlipalius, Queensland Government

8:50 a.m. Partitioning the Contribution to Death Attributable from Multiple Time-Varying Coexisting Diseases—◆Haiqun Lin, Yale University

9:05 a.m. Dependent Exposure in a Matched Case-Control Study—◆Mark Delorey, CDC

9:20 a.m. On Inference Using Intermediate Base-Level Attributable Risk for a Multinomial Sampling Scheme—◆Tanweer Jahan Shapla, Eastern Michigan University; Khairul Islam, University of Michigan

9:35 a.m. Optimal Designs for Binary Logistic Regression with a Qualitative Classifier—◆Karabi Sinha, University of California, Los Angeles

9:50 a.m. The Proportional Odds Model with an Anchor—◆David Oakes, University of Rochester

10:05 a.m. Floor Discussion

639 CC-220 (West)

✪ Novel Survey Design and Estimation Methods—Contributed

Section on Survey Research Methods
Chair(s): Richard Sigman, Westat

8:35 a.m. Design Effects for Totals in Multistage Samples—◆Keith Rust, Westat; Pam Broene, Westat

8:50 a.m. An Improved Method for Constructing Confidence Intervals for Quantiles from Survey Data—◆Akhil Vaish, RTI International; Babubhai Shah, SAFAL Institute

9:05 a.m. Constrained Estimation of Cell-Only Households by Block Group Using Iterative Calibration—◆Mansour Fahimi, Marketing Systems Group; Paul Rappoport, Centris; Kevin Babyak, Centris; David Malarek, Marketing Systems Group

9:20 a.m. Improving Efficiency of Survey Sampling Procedures Through Order Statistics—◆Evrim Oral, Louisiana State University Health Sciences Center

9:35 a.m. Some Theory for the Propensity Scoring Adjustment Estimator—Jae-Kwang Kim, Iowa State University; ◆Minsun Kim, Iowa State University; Jay Breidt, Colorado State University

9:50 a.m. An Introduction to Presampling Inference II—◆Stephen Woodruff, Specified Designs

10:05 a.m. On Sample Sizes in a Longitudinal Survey—◆Andrew Vogt, Georgetown University; Dhiren Ghosh, Synectics for Management Decisions Inc.

640 CC-18 (East)

■ Models in Risk Analysis—Contributed

Section on Risk Analysis
Chair(s): Edward Melnick, Stern School of Business

8:35 a.m. Performance of a Diagnostic Test: A Decision Analysis Perspective—◆Rama Lakshmi Vishnuvajjala, FDA/CDRH

8:50 a.m. Biomarkers in Clinical Trials in the Development of Biologics and Risk Assessment—◆Samir Lababidi, FDA

9:05 a.m. A Stock and Flow Model of the U.S. Blood Supply—◆Arianna Simonetti, FDA; Mark Walderhaug, FDA

9:20 a.m. Modeling Trajectories of Delirium Using Mixture Models—◆Long Huu Ngo, Beth Israel Deaconess Medical Center/Harvard Medical School; Edward R. Marcantonio, Beth Israel Deaconess Medical Center/Harvard Medical School

9:35 a.m. Accurate Tolerance Limits for a Two-Way Nested Random Effects Model—◆Shun-Yi Chen, Tamkang University

9:50 a.m. Parameterizing a Complex Model in the Face of Uncertain Data: A Model Sensitivity Study—◆Jennifer C. Huckett, Battelle

10:05 a.m. B-Tox: A Bayesian Facelift for Ecotoxicology—◆David Fox, The University of Melbourne

641 CC-207 (West)

■ ✪ A Question of Causality—Contributed

Social Statistics Section, Section on Government Statistics
Chair(s): Stephanie Brown, Energy Information Administration

8:35 a.m. Re-Randomization in Randomized Experiments—◆Kari F. Lock, Harvard University; Donald B. Rubin, Harvard University

8:50 a.m. Numerical Approximation of the Likelihood of Correlation Matrices—◆Myung Soon Song, University of Pittsburgh

9:05 a.m. Dynamic Markov Bases—◆Adrian Dobra, University of Washington

9:20 a.m. A Distribution-Free Approach for Inference about Structural Equations Models—◆Douglas David Gunzler, University of Rochester

9:35 a.m. Estimation of Average Treatment Effect in Causal Inference Using Exponential Tilting Models—◆Ming Zhou, Iowa State University; Jae-Kwang Kim, Iowa State University

9:50 a.m. Causal Inference in Transportation Safety Studies: Comparison of the Potential Outcomes and Causal Bayesian Networks—◆Vishesh Karwa, Penn State; Aleksandra B. Slavkovic, Penn State

10:05 a.m. Floor Discussion

Invited Sessions
10:30 a.m.–12:20 p.m.

642 CC-209 (West)

■ ✪ Modeling and Analyzing Temporal/Spatial Event Data—Invited

SSC, Committee on Applied Statisticians, IMS, Section on Statistics and the Environment, Section on Statistics in Defense and National Security
Organizer(s): Joan Hu, Simon Fraser University
Chair(s): Joan Hu, Simon Fraser University

10:35 a.m. Incidence, Prevalence, and Duration in Alternating Events Models—◆Mei-Cheng Wang, The Johns Hopkins University; Russell T. Shinohara, Johns Hopkins Bloomberg School of Public Health

11:00 a.m. Partially Linear Single Index Approach for AFT Models—◆Wenqing He, The University of Western Ontario

11:25 a.m. Multistate Modeling Approaches for Estimating Disease Risk in Gene Mutation Carriers from Family Data—◆Karen Kopciuk, Alberta Health Services; Yun-Hee Choi, The University of Western Ontario; Laurent Briollais, Samuel Lunenfeld Research Institute; Patrick Parfrey, Memorial University; Jane Green, Memorial University

11:50 a.m. Spatial Multistate Models—◆Patrick Edward Brown, Cancer Care Ontario/Dalla Lana School of Public Health

12:15 p.m. Floor Discussion

643 CC-201 (West)

■ ✪ Biostatistical Innovations in the Australasian Region—Invited

Statistical Society of Australia, Biometrics Section
Organizer(s): Mark Griffin, University of Queensland
Chair(s): Mark Griffin, University of Queensland

10:35 a.m. Statistical Considerations in Cost-Effectiveness Assessments of New Medicines in Australia—◆Ian Marschner, Macquarie University

11:05 a.m. Challenges in the Conduct of Clinical Trials in the Australasian Region—◆Val Gebski, University of Sydney

11:35 a.m. Statistical Challenges in Preparing for and Responding to a Pandemic—◆Niels G. Becker, The Australian National University

12:05 p.m. Floor Discussion

644 CC-302/303 (West)

■ ✪ Mixture Models: Applications, a Critical Appraisal, and Some Alternative Strategies—Invited

ENAR, Committee on Applied Statisticians, IMS, Section on Quality and Productivity
Organizer(s): Eva Petkova, New York University
Chair(s): Joseph Cavanaugh, The University of Iowa College of Public Health

10:35 a.m. Mixture Modeling Strategies for Dynamic PET Data—◆Todd Ogden, Columbia University; Huiping Jiang, New York State Psychiatric Institute

11:00 a.m. Modeling Placebo Response via Infinite Mixtures—◆Thaddeus Tarpey, Wright State University

11:25 a.m. Partitioning of Functional Data for Understanding Heterogeneity in Psychiatric Conditions—◆Eva Petkova, New York University

11:50 a.m. Growth Modeling with Possibly Nonignorable Dropout—◆Bengt Muthen, Mplus

12:15 p.m. Floor Discussion

645 CC-301 (West)

■ Key Multiplicity Issues in Clinical Trials—Invited

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR
Organizer(s): Alex Dmitrienko, Eli Lilly and Company
Chair(s): Yan Daniel Zhao, Eli Lilly and Company

10:35 a.m. Regulatory Considerations for Addressing Multiplicity Problems of Clinical Trials with Multiple Endpoints—◆Mohammad F. Huque, FDA

11:00 a.m. Industry Perspective on the FDA Guidance on Multiplicity Issues—◆Walter W. Offen, Eli Lilly and Company

11:25 a.m. Variations of and Types of Statistical Control for Multiplicity in Clinical Trials: The Academic Perspective—◆Joseph Massaro, Boston University; Ralph B. D'Agostino Sr., Boston University

11:50 a.m. Multiplicity in Clinical Trials: A European Perspective—◆Norbert Benda, BfArM; Joachim Roehmel, Institute for Prevention Research and Social Medicine

12:15 p.m. Floor Discussion

646 CC-208 (West)

■ ✪ Getting More from Genomewide Association Studies—Invited

Biometrics Section, ENAR, IMS, International Chinese Statistical Association, WNAR
Organizer(s): Mitchell H. Gail, National Cancer Institute
Chair(s): Glen Satten, CDC

10:35 a.m. Assessing Gene-Set Association in Genomewide Association Studies—Lin Chen, Fred Hutchinson Cancer Research Center; ◆Li Hsu, Fred Hutchinson Cancer Research Center

11:00 a.m. Evaluating Rare Variants in Genomewide Studies—◆John S. Witte, University of California, San Francisco

11:25 a.m. Value-Added Analysis of GWAS—◆Nilanjan Chatterjee, National Cancer Institute

11:50 a.m. Secondary Phenotype Data Analysis in Case-Control Genomewide Association Studies—◆Huilin Li, National Cancer Institute; Mitchell H. Gail, National Cancer Institute; Sonja Berndt, National Cancer Institute; Nilanjan Chatterjee, National Cancer Institute

12:15 a.m. Floor Discussion

647 CC-220 (West)

■ ✪ Effective Use of Instructional Technology—Invited

Section on Statistical Education, Section on Statistical Computing
Organizer(s): Rob Gould, University of California, Los Angeles
Chair(s): Rob Gould, University of California, Los Angeles

10:35 a.m.	GAISE into Online Discussions—◆Michelle Everson, University of Minnesota
11:00 a.m.	Pedagogical Simulations with StatCrunch—◆Webster West, Texas A&M University
11:25 a.m.	Designing a Course for Online Instruction—◆Jamis Perrett, Texas A&M University
11:50 a.m.	Guiding Student Project Workflow Using Reproducible Statistical Analysis Tools—◆Nicholas Jon Horton, Smith College
12:15 p.m.	Floor Discussion

648 CC-120 (West)

■ Measurement of Elusive Populations and Phenomena: Experiences and Challenges from the Human Rights Field—Invited

Social Statistics Section, Section on Government Statistics, Section on Survey Research Methods
Organizer(s): Megan Price, Benetech
Chair(s): Lillian Lin, CDC

10:35 a.m.	Measuring Elusive Populations with Multiple Systems Estimation: A Case Study in Casanare—◆Kristian Lum, Duke University; Megan Price, Benetech; Patrick Ball, Benetech
11:00 a.m.	A New Method to Estimate Mortality in Crisis-Affected and Resource-Poor Settings: Validation Study—◆Francesco Checchi, London School of Hygiene and Tropical Medicine
11:25 a.m.	Measuring Lethal Counterinsurgency Violence in Amritsar District, India, Using a Referral-Based Sampling Technique—◆Romesh Silva, Benetech; Jeff Klingner, Benetech; Scott Weikart, Benetech
11:50 a.m.	Disc: Steven Thompson, Simon Fraser University
12:10 p.m.	Floor Discussion

649 CC-217 (West)

■ ✪ Variable Selection and Multiple Hypothesis Testing in Non- and Semiparametric Analysis of High-Dimensional Data—Invited

Section on Nonparametric Statistics, IMS, Section on Quality and Productivity
Organizer(s): Lan Wang, University of Minnesota
Chair(s): Edsel A. Pena, University of South Carolina

10:35 a.m.	Variable Selection in the Kernel Machine Framework via the Garrote Kernel Selector—◆Michael C. Wu, The University of North Carolina at Chapel Hill
11:00 a.m.	Model Selection for Partially Linear Models with Diverging Dimensions—◆Hao Helen Zhang, North Carolina State University
11:25 a.m.	A False Important Discovery Approach to Testing Large Non-Null Effects—◆Wenguang Sun, North Carolina State University; Alexander McLain, National Institutes of Health
11:50 a.m.	Adaptive Multiple Testing Procedures Controlling the Familywise Error Rate—◆Sanat K. Sarkar, Temple University
12:15 p.m.	Floor Discussion

650 CC-211 (West)

■ Current Applications of Small-Area Estimation Using Data from Complex Surveys—Invited

Section on Survey Research Methods, Committee on Applied Statisticians, IMS, Section on Government Statistics, Social Statistics Section
Organizer(s): Parthasarathi Lahiri, University of Maryland; Michael E. Bellow, National Agricultural Statistics Service
Chair(s): Cynthia Clark, National Agricultural Statistics Service

10:35 a.m.	Current Developments in Small-Area Estimation at Statistics Canada—◆Michel Arsene Hidiroglou, Statistics Canada
11:00 a.m.	An Evaluation of Housing Unit and Block Cluster Effects on Small-Area Census Coverage Variability in the 2006 Census Test—◆Donald Malec, U.S. Census Bureau
11:25 a.m.	An Empirical Bayes Approach for the National Agricultural Statistics Service's County Estimation Program—◆Michael E. Bellow, National Agricultural Statistics Service; Parthasarathi Lahiri, University of Maryland
11:50 a.m.	Disc: Robert E. Fay, Westat
12:10 p.m.	Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Invited Panels 10:30 a.m.–12:20 p.m.

651 CC-224 (West)

✪ Initiatives to Create Guidelines for Statistics Education to Prepare Future Generations to Function Effectively in a Data-Centric World: A Progress Report—Invited

ASA NCTM Joint Committee on Curriculum in Statistics and Probability, Section on Statistical Education

Organizer(s): Deborah Lurie, Saint Joseph's University
Chair(s): Deborah Lurie, Saint Joseph's University

Panelists:
◆Carolyn Cuff, Westminster College
◆Christine Franklin, The University of Georgia
◆Katherine Halvorsen, Smith College

12:15 p.m. Floor Discussion

652 CC-306 (West)

■ ✪ Statistics Training in a Data-Centric World—Invited

The American Statistician, Committee on Career Development, Section on Quality and Productivity, Section on Statistical Education, Section on Teaching of Statistics in the Health Sciences

Organizer(s): John Stufken, The University of Georgia
Chair(s): John Stufken, The University of Georgia

Panelists:
◆Samad Hedayat, University of Illinois at Chicago
◆Lisa M. LaVange, The University of North Carolina at Chapel Hill
◆Xiao-Li Meng, Harvard University
◆Deborah Nolan, University of California, Berkeley
◆Tommy Wright, U.S. Census Bureau

12:15 p.m. Floor Discussion

Topic-Contributed Sessions 10:30 a.m.–12:20 p.m.

653 CC-116 (West)

■ ✪ Innovation in the Data-Centric World of fMRI—Topic-Contributed

Biometrics Section

Organizer(s): Daniel B. Rowe, Marquette University
Chair(s): Daniel B. Rowe, Marquette University

10:35 a.m. Accounting for Student Demographics in the Interpretation of Student Evaluation Data—◆Natalie Blades, Brigham Young University

10:55 a.m. Synthetic Magnetic Resonance Imaging Revisited—◆John Riddles, Iowa State University; Ranjan Maitra, Iowa State University

11:15 a.m. Estimating Parameters for Rice-Distributed Time Series Observations with Applications to fMRI—◆Daniel W. Adrian, Iowa State University; Ranjan Maitra, Iowa State University; Daniel B. Rowe, Marquette University

11:35 a.m. TwinMARM: Two-Stage Multiscale Adaptive Regression Methods for Twin Neuroimaging Data—◆Yimei Li, St. Jude Children's Research Hospital; Hongtu Zhu, The University of North Carolina at Chapel Hill

11:55 a.m. Bayesian Covariance Lasso—◆Zakaria Khondker, The University of North Carolina at Chapel Hill; Hongtu Zhu, The University of North Carolina at Chapel Hill; Joseph G. Ibrahim, The University of North Carolina at Chapel Hill; Haitao Chu, The University of North Carolina at Chapel Hill

12:15 p.m. Floor Discussion

654 CC-109 (West)

■ ✪ Recent Developments in Address-Based Sampling Methodologies—Topic-Contributed

Section on Survey Research Methods

Organizer(s): Mansour Fahimi, Marketing Systems Group
Chair(s): Mansour Fahimi, Marketing Systems Group

10:35 a.m. Obtaining Population Representation with an Address-Based Sampling Design—◆Michael Link, The Nielsen Company; Jennie Lai, The Nielsen Company; Charles Shuttles, The Nielsen Company

10:55 a.m. Qualities of Coverage: Who Is Included or Excluded by Decisions of Frame Composition?—◆Edward Marks English, NORC; Colm O'Muircheartaigh, NORC; Katie Dekker, NORC; Michael Latterner, NORC

11:15 a.m. Results of Targeting Preidentified Minority, Unidentified Non-Internet and Vacant Homes in Two National ABS Samples—◆Charles DiSogra, Knowledge Networks; Erlina Hendarwan, Knowledge Networks

11:35 a.m. The Best of Both Worlds: A Sampling Frame Based on Address-Based Sampling and Field Enumeration—◆Vincent G. Iannacchione, RTI International; Katherine Morton, RTI International; Joseph P. McMichael, RTI International; Bonnie Shook-Sa, RTI International; Jamie L. Ridenhour, RTI International; Stephanie J. Stolzenberg, RTI International; David Bergeron, RTI International; James R. Chromy, RTI International; Art Hughes, Substance Abuse and Mental Health Services Administration

11:55 a.m. 'Unmatched' RDD and ABS Sample: Are We Reaching the Same Population?—◆Anna Fleeman, Arbitron Inc.; Robin Gentry, Arbitron Inc.; Nicole Wasikowski, Arbitron Inc.

12:15 p.m. Floor Discussion

655 CC-122 (West)

■ Measurement Issues in Counting Workplace Injuries and Illnesses—Topic-Contributed

Section on Survey Research Methods, Section on Quality and Productivity
Organizer(s): Polly Phipps, Bureau of Labor Statistics
Chair(s): Daniell Toth, Bureau of Labor Statistics

10:35 a.m. Allegations of Undercounting in the BLS Survey of Occupational Injuries and Illnesses—◆John Ruser, Bureau of Labor Statistics

10:55 a.m. Using Capture-Recapture Analysis to Identify Factors Associated with Differential Reporting of Workplace Injuries and Illnesses—◆Brooks Pierce, Bureau of Labor Statistics; Nicole Nestoriak, Bureau of Labor Statistics; Leslie I. Boden, Boston University

11:15 a.m. Employer Interviews: Exploring Differences in Reporting Work Injuries and Illnesses in the Survey of Occupational Injuries and Illnesses and State Workers' Compensation Claims—◆Polly Phipps, Bureau of Labor Statistics; Danna Moore, Social and Economic Sciences Research Center

11:35 a.m. Work-Related Injury and Illness Surveillance Through Multiple Data Sources, a Pilot Project—◆Sara E. Wuellner, Washington State Dept. of Labor & Industries; David Bonauto, Washington State Dept. of Labor & Industries; Nicole Riester, Washington State Dept. of Labor & Industries; Cody Spann, Washington State Dept. of Labor & Industries

11:55 a.m. Disc: Michael Larsen, The George Washington University

12:15 p.m. Floor Discussion

656 CC-215 (West)

Hierarchical Models for Health Disparity: A Road Map to Healthy People 2010—Topic-Contributed

Section on Statistics in Epidemiology, Biometrics Section
Organizer(s): Tapabrata Maiti, Michigan State University
Chair(s): Vivek Pradhan, Boston Scientific Corporation

10:35 a.m. Experiences with Approximate Bayes Inference for the Poisson-CAR Model—◆Chae Young Lim, Michigan State University; Sarat C. Dass, Michigan State University; Tapabrata Maiti, Michigan State University

10:55 a.m. Default Bayesian Analysis for Hierarchical Spatial Multivariate Models—◆Sarat C. Dass, Michigan State University; Chae Young Lim, Michigan State University; Tapabrata Maiti, Michigan State University

11:15 a.m. Spatial Scan Statistics with Overdispersion—◆Tonglin Zhang, Purdue University

11:35 a.m. Measuring Health Disparities: The Choice of Spatial Unit—◆Carol Gotway Crawford, CDC; Zhuo (Adam) Chen, CDC

11:55 a.m. Floor Discussion

657 CC-210 (West)

■ Challenges in Interdisciplinary Spatial and Spatiotemporal Analysis—Topic-Contributed

Section on Statistics and the Environment
Organizer(s): Alexander Kolovos, SAS Institute
Chair(s): Megan Liedtke, University of Nebraska-Lincoln

10:35 a.m. Random Motion on Symmetric Spaces—◆Vassilis George Papanicolaou, National Technical University of Athens; Demetra N. Kouloumbou, National Technical University of Athens

10:55 a.m. Objective Bayesian Analysis of Spatially Correlated Data Including Measurement Error—◆Hannes Kazianka, University of Klagenfurt; Jürgen Pilz, University Klagenfurt

11:15 a.m. Residential Mobility, Cancer and Local Indicators of Geocoding Accuracy—◆Geoffrey Mark Jacquez, TerraSeer; Robert Rommel, TerraSeer

11:35 a.m. BME-Based Retrospective Prediction of Spatiotemporal Distribution of PM2.5 in Taipei—◆Hwa-Lung Yu, National Taiwan University; Chih-Hsin Wang, National Taiwan University

11:55 a.m. Floor Discussion

658 CC-206 (West)

■ Financial Econometrics and Risk Management—Topic-Contributed

IMS, Section on Risk Analysis
Organizer(s): Chengyong Tang, National University of Singapore
Chair(s): Chengyong Tang, National University of Singapore

10:35 a.m. A Semiparametric Estimation of Mean Function with Nonignorable Missing Data—◆Cindy Long Yu, Iowa State University

10:55 a.m. A New Long Memory Volatility Model—◆Guodong Li, The University of Hong Kong

11:15 a.m. Penalized Empirical Likelihood for High-Dimensional General Estimating Equations—◆Chenlei Leng, National University of Singapore; Chengyong Tang, National University of Singapore

11:35 a.m. A Semiparametric Model for the Conditional Duration of Irregularly Spaced Transaction—◆Yingcun Xia, National University of Singapore

11:55 a.m. Approximate Maximum Likelihood Estimation for Diffsuion Processes—◆Song X. Chen, Iowa State University/Peking University; Jing-Yuan Chang, Peking University

12:15 p.m. Floor Discussion

659 CC-212 (West)

■ Bayesian Spatial Modeling—Topic-Contributed

Section on Bayesian Statistical Science, IMS, Section on Statistics and the Environment
Organizer(s): Garritt Page, Duke University
Chair(s): Dongchu Sun, University of Missouri

10:35 a.m. Reference Priors for AR(2) Models—◆Shawn Ni, University of Missouri; Dongchu Sun, University of Missouri

10:55 a.m. Bayesian Methods in Syndromic Surveillance—◆Jian Zou, National Institute of Statistical Sciences

11:15 a.m. Marginally Conditional Autoregressive Distributions for Misaligned Regions—◆Chester Lee Schmaltz, University of Missouri; Dongchu Sun, University of Missouri

11:35 a.m. Hierarchical Bayes Models for QOL in Breast Cancer Survivors—◆Yajun Liu, University of Missouri

11:55 a.m. The Effect of Spatial Confounding on Covariate Estimation—◆Garritt Page, Duke University; Yajun Liu, University of Missouri; Dongchu Sun, University of Missouri

12:15 p.m. Floor Discussion

660 CC-121 (West)

■ ✪ Issues and Challenges with Implementing Web Surveys in U.S. Government Organizations—Topic-Contributed

Section on Government Statistics, Social Statistics Section
Organizer(s): Grace E. O'Neill, U.S. Energy Information Administration
Chair(s): Carrie Hughes-Cromwick, Energy Information Administration

10:35 a.m. Technological and Methodological Challenges of One-Time, Quick-Turnaround Web Surveys in a Government Auditing Agency—◆Pamela R. Davidson, Government Accountability Office; Justin S. Fisher, Government Accountability Office; Carl M. Ramirez, Government Accountability Office

10:55 a.m. And the Survey Data Says: Top Facts About Our Online Respondents and How We Plan to Get More of Them—◆Chris Gottschall, National Agricultural Statistics Service; Jaki McCarthy, National Agricultural Statistics Service

11:15 a.m. Perspectives on Web Survey Development: Views from Programmers, Content Specialists, and Survey Methodologists—◆Kathy Downey, Bureau of Labor Statistics

11:35 a.m. Improving Annual Web Collection with Excel Workbooks—◆Jennifer Margaret Harris, Bureau of Labor Statistics; Michele E. Walker, Bureau of Labor Statistics; R. Allan Emery, Bureau of Labor Statistics

11:55 a.m. Is an Agency-Wide Internet Data Collection System Really a Good Idea? Before You Say I Do, Consider This—◆Grace E. O'Neill, U.S. Energy Information Administration

12:15 p.m. Floor Discussion

661 CC-207 (West)

✪ New Directions in Functional Data Analysis—Topic-Contributed

Section on Nonparametric Statistics
Organizer(s): Ana-Maria Staicu, North Carolina State University
Chair(s): Ciprian Crainiceanu, The Johns Hopkins University

10:35 a.m. HARK: A New Approach for Regression with Functional Predictors—◆Dawn B. Woodard, Cornell University

10:55 a.m. Functional Data with Spatially Varying Shape Parameters—◆Ana-Maria Staicu, North Carolina State University; David Ruppert, Cornell University; Ciprian Crainiceanu, The Johns Hopkins University

11:15 a.m. Defining Probability Density for a Distribution of Random Functions—◆Aurore Delaigle, The University of Melbourne; Peter Hall, The University of Melbourne

11:35 a.m. Varying-Coefficient Functional Linear Regression—◆Yichao Wu, North Carolina State University; Jianqing Fan, Princeton University; Hans-Georg Mueller, University of California, Davis

11:55 a.m. Thresholded Projection Estimator for the Mean Function in Functional Data—Florentina Bunea, Florida State University; Marten Wegkamp, Florida State University; ◆Andrada Ivanescu, East Carolina University

12:15 p.m. Floor Discussion

662 CC-213 (West)

■ ✪ Nonparametric and Semiparametric Modeling, Estimation, and Applications—Topic-Contributed

IMS, Section on Nonparametric Statistics
Organizer(s): Tonglin Zhang, Purdue University
Chair(s): Xiao Wang, Purdue University

10:35 a.m. How Many Iterations Are Sufficient for Semiparametric Estimation?—◆Guang Cheng, Purdue University

10:55 a.m. Nonparametric Methods in Sensing the Deep Earth—◆Ping Ma, University of Illinois at Urbana-Champaign

11:15 a.m. A New Construction of Triogram Model—◆Huijun Pan, Texas A&M University; Jianhua Huang, Texas A&M University

11:35 a.m. Model Selection of Correlation Structure for Clustered Data—◆Jianhui Zhou, University of Virginia; Peiyong (Annie) Qu, University of Illinois at Urbana-Champaign

11:55 a.m. Kernel Estimation of Time Series: An Asymptotic Theory—Weibiao Wu, The University of Chicago; ◆Yinxiao Huang, The University of Chicago; Yibi Huang, The University of Chicago

12:15 p.m. Floor Discussion

663 CC-222 (West)

✪ Design, Analysis, and Operational Considerations of Adaptive Design Trials in Clinical Development—Topic-Contributed

Biopharmaceutical Section, Committee on Applied Statisticians, ENAR
Organizer(s): Weili He, Merck & Co., Inc.
Chair(s): Jinglan Pei, Merck & Co., Inc.

10:35 a.m. Considerations for Design and Data Analysis of Adaptive Superiority/Noninferiority Cardiovascular Trials—◆Hui Quan, sanofi-aventis; Mingyu Li, Celgene Corporation; Peng-Liang Zhao, sanofi-aventis; Meehyung Cho, sanofi-aventis; Ji Zhang, sanofi-aventis; Yujun Wu, sanofi-aventis

10:55 a.m. Design and Trial Operational Considerations for a Phase II Two-Stage Adaptive Trial—◆Weili He, Merck & Co., Inc.; Madhuja Mallick, Merck & Co., Inc.; Yevgen Tymofyeyev, Merck & Co., Inc.; James A. Bolognese, Cytel Inc.

11:15 a.m. Experience with Using Simulation Models to Plan for Drug Supply in Adaptive Trials—◆Nitin R. Patel, Cytel Inc.; Suvajit Samanta, Merck Research Laboratories; Pralay Senchaudhuri, Cytel Inc.; Christine Stocklin, Merck & Co., Inc.

11:35 a.m. Disc: Carmen Mak, Merck Research Laboratories

11:55 a.m. Disc: Edmund Luo, Forest Research Laboratories

12:15 p.m. Floor Discussion

664 CC-115 (West)

David P. Byar Young Investigator Award, Session 3/3—Topic-Contributed

Biometrics Section
Organizer(s): Hormuzd A. Katki, National Cancer Institute
Chair(s): Misrak Gezmu, National Institute of Allergy and Infectious Diseases

10:35 a.m. Pruning and Dimension Reduction in Conditional Granger Causality—◆Haley Hedlin, Johns Hopkins Bloomberg School of Public Health; Brian Scott Caffo, Johns Hopkins Bloomberg School of Public Health

10:55 a.m. Improved DNA Resequencing Analysis in Disease-Gene Studies—◆Wenyi Wang, Stanford University; Peidong Shen, Stanford University; Sreedevi Thyagarajan, Stanford University; Shengrong Lin, Stanford University; Curtis Palm, Stanford University; David Cutler, Emory University; Ronald W. Davis, Stanford University; Michael Mindrinos, Stanford University; Terence Paul Speed, University of California, Berkeley; Curt Scharfe, Stanford University

11:15 a.m. Comparing Biomarkers as Principal Surrogate Endpoints—◆Ying Huang, Columbia University

11:35 a.m. Structured Varying-Coefficient Model for High-Dimensional Feature Discovery with Applications in Genomic Analysis—◆Zhongyin John Daye, University of Pennsylvania; Hongzhe Li, University of Pennsylvania

11:55 a.m. Optimal Sparse Segment Identification with Application in Copy Number Variation Analysis—◆Jessie Jeng, University of Pennsylvania; Tony Cai, University of Pennsylvania; Hongzhe Li, University of Pennsylvania

12:15 p.m. Floor Discussion

665 CC-114 (West)

■ Considerations in Safety Data Analyses—Topic-Contributed

Biopharmaceutical Section
Organizer(s): YuTe Wu, FDA
Chair(s): Laura Stets, FDA

10:35 a.m. Bayesian Hierarchical Models for Detecting Safety Signals in Clinical Trials—◆Haijun Ma, Amgen Inc.; Amy Xia, Amgen Inc.; Bradley P. Carlin, University of Minnesota

10:55 a.m. Sequential Conditional Tests for an Increasing Trend in a Sequence of Binomial Proportions with Applications to Safety Signal Detection—◆Jie Chen, Abbott Laboratories

11:15 a.m. Comparison of Different Choices of Baseline Values in Parallel Thorough QTc Studies—◆Qianyu Dang, FDA; Joanne Zhang, FDA

11:35 p.m. Floor Discussion

Topic-Contributed Panel
10:30 a.m.–12:20 p.m.

666 CC-118 (West)

The Rising Tide of Statistics in Business—Topic-Contributed

Business and Economic Statistics Section
Organizer(s): Kaiser Fung, New York University
Chair(s): Mammo Woldie, Texas Southern University

Panelists: ◆Kaiser Fung, New York University
◆Dan Coates, Youth Pulse/Globalpark USA
◆Nathaniel Derby, Stakana Analytics
◆Richard Kachur, IBM Canada

12:15 p.m. Floor Discussion

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

Contributed Sessions 10:30 a.m.–12:20 p.m.

667 CC-107/108 (West)

■ Ordinal Data—Contributed

Biometrics Section, Biopharmaceutical Section

Chair(s): Rhonda J. Rosychuk, University of Alberta

10:35 a.m. Misclassified Ordinal Data in Case-Control Studies—◆Tzesan Lee, CDC/NCEH/EHHE

10:50 a.m. A New Residual for Ordinal Outcomes—◆Chun Li, Vanderbilt University; Bryan E. Shepherd, Vanderbilt University

11:05 a.m. Metrological Characteristics of Ordinal Data—Tamar Gadrich, Ort Braude College; ◆Emil Bashkansky, Ort Braude College

11:20 a.m. How to Analyze Ordinal Categorical Data: Some Simulation Results—◆George Zhang, Daiichi Sankyo Pharma Development

11:35 a.m. Assessing Regression Modeling with Ordinal Repeated Responses—◆Kao-Tai Tsai, Everest Clinical Research Services Inc.

11:50 a.m. Floor Discussion

668 CC-105/106 (West)

■ Clinical Trials: Analysis—Contributed

Biometrics Section

Chair(s): Krishan Singh, GlaxoSmithKline

10:35 a.m. Using Integrated Difference Between Two Kaplan-Meier Curves for Quantifying Treatment Contrast in Comparative Clinical Trials with Event Time Observations—◆Lihui Zhao, Harvard School of Public Health

10:50 a.m. Quantifying the Cost in Power of Ignoring Covariate Imbalances in Clinical Trial Randomization—◆Jody Dyan Ciolino, Medical University of South Carolina; Wenle Zhao, Medical University of South Carolina; Yuko Y. Palesch, Medical University of South Carolina; Renee' Martin, Medical University of South Carolina

11:05 a.m. The Use of Nomogram Predictions as Comparators for Adjuvant Treatment Studies in Prostate Cancer—◆Zhenyu Jia, University of California, Irvine; James Koziol, The Scripps Research Institute; Michael Lilly, University of California, Irvine; Dan Mercola, University of California, Irvine

11:20 a.m. Methods to Test Treatment-by-Site Interaction Using Mediated Moderation: An Application to the TORDIA Clinical Trial—◆Kaleab Abebe, University of Pittsburgh; Satish Iyengar, University of Pittsburgh; David A. Brent, University of Pittsburgh

11:35 a.m. Pre-Clinical Molecular Biomarkers of Liver Toxicity—◆Ching-Wei Chang, National Center for Toxicological Research; James Chen, National Center for Toxicological Research; Frederick Beland, National Center for Toxicological Research

11:50 a.m. Combining Stratified and Unstratified Log-Rank Tests in Multicenter Clinical Trial Data—◆Changyong Feng, University of Rochester Medical Center

12:05 p.m. Floor Discussion

669 CC-113 (West)

■ Analysis Strategies for Count Data, Data with Excessive Zeros, and Sparse Data—Contributed

Biopharmaceutical Section

Chair(s): B. Christine Clark, ReSearch Pharmaceutical Services, Inc.

10:35 a.m. Modeling of Zero-Inflated Count Data: Comparing the Results Using LOCF and MMRM—◆Luyan Dai, Boehringer Ingelheim Pharmaceuticals, Inc.; Moumita Sinha, Boehringer Ingelheim Pharmaceuticals, Inc.

10:50 a.m. Power Analyses for Negative Binomial Models with Application to Multiple Sclerosis Clinical Trials—◆Mallikarjuna Rettiganti, The Ohio State University; Haikady Nagaraja, The Ohio State University

11:05 a.m. Estimating Odds Ratio for Logistic Regression in Multicenter Trials When Data Are Sparse—◆Xiaomin He, ICON Clinical Research

11:20 a.m. Analysis of Number of Recurrent Events with Early Withdrawals—◆Kim Hung Lo, Johnson & Johnson; Bin Zou, Johnson & Johnson; Jiandong Lu, Johnson & Johnson

11:35 a.m. Identification of Protein Phosphorylation Sites Using Zero-Inflated Poisson Regression—◆Shu Yang, Boston University; Eric Kolaczyk, Boston University; Simon Kasif, Boston University; Martin Steffen, Boston University

11:50 a.m. Analysis of Non-Negative, Continuously Distributed Data with Excessive Zeros—◆Huiling Li, sanofi-aventis; Lynn Wei, sanofi-aventis; Hui Quan, sanofi-aventis; Nanshi Sha, Columbia University

12:05 p.m. A Method to Analyze Area Under the Curves on Sparse Sampling—◆Huajiang Li, Allergan Pharmaceuticals, Inc.

670 CC-111 (West)

■ Evaluation of Methodology Using Simulations—Contributed

Biopharmaceutical Section

Chair(s): Peiling Yang, FDA

10:35 a.m. Reducing Parameter Estimation Bias for Data with Missing Values Using Simulation Extrapolation—◆YU-YI Hsu, Iowa State University; Yongming Qu, Eli Lilly and Company; Alicia Carriquiry, Iowa State University

10:50 a.m. CTDesignExplorer: An Action Queue–Based Open-Source Simulation Experiment Platform for Evaluating Clinical Trial Designs—◆Yuanyuan Wang, University of Pittsburgh; Roger Day, University of Pittsburgh; Daniel Normolle, University of Pittsburgh

11:05 a.m. A Simulation Study to Compare Modeling Approaches for Dose Proportionality Data—◆Andrea Maes, Novartis Pharmaceuticals Corporation; Wen-Lin Luo, Merck & Co., Inc.; Yu Ding, Merck Research Laboratories; Deborah Panebianco, Merck & Co., Inc.

11:20 a.m. A Simulation Study to Evaluate Sample Size and Power for a Trial to Develop a Prediction Rule Using Machine Learning Methods—◆Radha Railkar, Merck & Co., Inc.; Matthew Wiener, Merck & Co., Inc.; Leonidas Carayannopoulos, Merck & Co., Inc.

11:35 a.m. Impact of Missing Data on Type 1 Error Rates in Noninferiority Trials—◆Bongin Yoo, Bristol-Myers Squibb

11:50 a.m. Point and Interval Estimations for Difference of Two Proportions in Incomplete Matched-Paired Data Using Expectation-Maximization Algorithm—◆Adeniyi J. Adewale, Merck & Co., Inc.; Benjamin B. John, EdgeServe LLC

12:05 p.m. Estimation of Confidence Intervals for the Log-Normal Mean—◆Lingmin Zeng, MedImmune; Lanju Zhang, MedImmune; Harry Yang, MedImmune

671 CC-13 (East)

■ Modeling Nonstandard Sports Data—Contributed

Section on Statistics in Sports

Chair(s): Patricia English, Pfizer Inc.

10:35 a.m. The Disappearance of the Rank Correlation Between Accuracy and Money Earned on the PGA Tour: A Simple Explanation Unrelated to Grooves—◆Norma Faris Hubele, Arizona State University/Refrac Systems; Paul Wood, Ping Golf, Inc.

10:50 a.m. Simulation for Golf Resort Overbooking—◆Melvin Ott, Melvin Ott & Associates

11:05 a.m. Analysis of a Table Tennis Game: A Pedagogical Tool—◆Reza D. Noubary, Bloomsburg University

11:20 a.m. Motocycle Grand Prix (MotoGP) Lap Time Models—◆Leanne Streja, University of California, Los Angeles School of Public Health; Robert E. Weiss, University of California, Los Angeles School of Public Health; Catherine A. Sugar, University of California, Los Angeles School of Public Health

11:35 a.m. Statistical Assessment of the Time to Stabilization with Gait Fatigue—◆Carolyn Morgan, Hampton University; Kristin Denise Morgan, College of William and Mary; Morris Herbert Morgan III, Hampton University; Peter Pidcoe, Virginia Commonwealth University

11:50 a.m. False Starts and Alternative Hypotheses—◆Michael Rotkowitz, The University of Melbourne

12:05 p.m. Floor Discussion

672 CC-117 (West)

✪ Applications Cross Section II—Contributed

Business and Economic Statistics Section

Chair(s): Matilde Bini, European University of Rome

10:35 a.m. Blending Vital Statistics Inputs for Life-Table Analysis of Nursing Home Duration—◆Gary Simon, New York University

10:50 a.m. Estimation in State-Space Models with Exogenous Covariates and Missing Data—◆Arlene Naranjo, University of Florida; Mildred M. Maldonado-Molina, University of Florida; Kelli A. Komro, University of Florida; A. Alexandre Trindade, Texas Tech University; George Casella, University of Florida

11:05 a.m. Exploring the Factors Influencing Customer's Intentions to Adopt the Innovative Technology Products—◆Nai-Hua Chen, Chienkuo Technology University; Stephen C.T. Huang, National Kaohsiung First University of Science and Technology

11:20 a.m. Efficiency Measurement Using a Stochastic Frontier Model, with Application to Korean Banks—◆Eunyoung Kim, Pusan National University; Changkon Hong, Pusan National University; Seongho Song, University of Cincinnati

11:35 a.m. Dynamic Spatial Models for Estimating Systemic Yield Risk—◆Ying Zhu, North Carolina State University; Sujit Kumar Ghosh, North Carolina State University; Barry Goodwin, North Carolina State University

11:50 a.m. A Rare Event Model for Growth Dynamics—◆Dodi Devianto, Andalas University

12:05 p.m. Floor Discussion

673 CC-223 (West)

■ ✪ Analysis of Gene Expression Data—Contributed

ENAR, Biometrics Section

Chair(s): Lan Kong, University of Pittsburgh

10:35 a.m. Mixed-Effects Cox Models for Gene Set Analysis—◆Terry Therneau, Mayo Clinic; Marianne Huebner, Mayo Clinic

10:50 a.m. Approximating High-Dimensional Simulations in Low-Dimensional Space, with Application to Microarray Prediction Error Estimation—◆Kevin Dobbin, The University of Georgia

11:05 a.m. Novel Computationally Parsimonious FDR Approach Identifies Genes Predictive of Breast Cancer Survival—◆Joshua Millstein, Sage Bionetworks; Dmitri Volfson, iPierian; John R. Lamb, Pfizer Inc.; Hongyue Dai, Merck & Co., Inc.; Stephen H. Friend, Sage Bionetworks; Eric E. Schadt, Pacific Biosciences; Jonas Bergh, Karolinska Institute

11:20 a.m. Two-Layer Bayesian Variable Selection with Group and Network Information—◆Francesco Claudio Stingo, Rice University

11:35 a.m. Likelihood-Based Approach to Gene Set Enrichment Analysis with a Finite Mixture Model—◆Baolin Wu, University of Minnesota; Sang Mee Lee, University of Minnesota

11:50 a.m. Multiple Imputation for Missing Values in Microarray Data—◆Richard Kennedy, The University of Alabama at Birmingham; Hemant K. Tiwari, The University of Alabama at Birmingham

12:05 p.m. Floor Discussion

674 CC-205 (West)

■ ✪ Bayesian Applications in Science with Complex Data—Contributed

Section on Bayesian Statistical Science

Chair(s): Marjorie E. Bond, Monmouth College

10:35 a.m. Analysis of Otolith Microchemistry Using Bayesian Hierarchical Mixture Models—◆Bethann Mangel Pflugeisen, The Ohio State University; Catherine Calder, The Ohio State University; Elizabeth Marschall, The Ohio State University

10:50 a.m. The Effect of Increased Capture Periods in Closed Population Capture-Recapture Experiments—Ross Gosky, Appalachian State University; ◆Jose Sanqui, Appalachian State University

11:05 a.m. Estimating Reliabilities for Complex Systems Using Multilevel and Multitype Information—◆Jiqiang Guo, Iowa State University; Alyson Wilson, Iowa State University

11:20 a.m. A Bayesian Hierarchical Framework for Modeling of Resting-State fMRI Data—◆Shuo Chen, Emory University; DuBois Bowman, Emory University; Lijun Zhang, Emory University

11:35 a.m. A Bayesian Joint Survival Model for Predicting Treatment Efficacy via Quantitative MRI—◆Jincao Wu, University of Michigan; Timothy D. Johnson, University of Michigan

11:50 a.m. Unified Modeling Methods for Curve Predictors and Different Responses—◆Xiaohui Wang, The University of Texas-Pan American; Veera Baladandayuthapani, MD Anderson Cancer Center; Bani K. Mallick, Texas A&M University; Kim-Ahn Do, MD Anderson Cancer Center; Shubhankar Ray, Merck & Co., Inc.

12:05 p.m. Bayesian Three-Dimensional Random-Shape Spatial Clustering—◆Timothy D. Johnson, University of Michigan; Jian Kang, University of Michigan

675 CC-119 (West)

■ ✪ Quality-of-Life Measurement and Categorical Modeling of Health Policy Outcomes—Contributed

Health Policy Statistics Section, Biometrics Section, ENAR, Social Statistics Section

Chair(s): Frank Yoon, Harvard Medical School

10:35 a.m. Comparing Statistical Models Used in Analysis of a Discrete Choice Experiment—◆Ji Cheng, St. Joseph's Healthcare Hamilton; Lehana Thabane, McMaster University; Deborah Marshall, University of Calgary; John K. Marshall, McMaster University

10:50 a.m. Statistical Analysis of Florida Patients' Emergency Department Visits for Ambulatory Care Sensitive Conditions—◆Anqi Tang, Florida State University; Askar Chukmaitov, Florida State University; Xufeng Niu, Florida State University

11:05 a.m. Establishing Best Predictors for Completion of the HPV4 Vaccine Sequence by Female Patients at Clinics of Johns Hopkins Medical Institutions—◆Christopher E. Barat, Stevenson University; Courtney Wright, Stevenson University; Betty Chou, The Johns Hopkins University

11:20 a.m. Number of Inpatient Admissions Related to News, Weather, Pollution, Economy—◆Ronald Bruce Low, New York City Health and Hospitals; Shunsuke Ito, New York City Health and Hospitals; Caroline Jacobs, New York City Health and Hospitals; Van H. Dunn, MetroPlus/New York City Health and Hospitals; David A. Dickey, North Carolina State University; Raymond Gregory, New York City Health and Hospitals; Leonard Bielory, Rutgers University

11:35 a.m. Generalizing Binary Outcome Point Score Indices to Multinomial Outcomes—◆Katharine A. Kirby, University of California, San Francisco; W. John Boscardin, University of California, San Francisco

11:50 a.m. Hospital Readmission Prediction—Donghui Wu, MEDai Inc.; ◆Ognian Asparouhov, MEDai Inc.

12:05 p.m. Floor Discussion

676 CC-219 (West)

Semi- and Nonparametric Regression—Contributed

Section on Nonparametric Statistics

Chair(s): Tongtong Wu, University of Maryland

10:35 a.m. A Gaussian Process Regression Approach to a Single-Index Model—◆Taeryon Choi, Korea University; Jian Qing Shi, University of Newcastle; Bo Wang, University of York

10:50 a.m. Maximum Likelihood Method for Linear Transformation Models with Generalized Case-Cohort Sampling—◆Yuan Yao, Hong Kong University of Science and Technology

11:05 a.m. Nonparametric Approaches to ROC Regression—◆Sean Devlin, University of Washington; Scott Emerson, University of Washington

11:20 a.m. A New Rank-Based Estimation Method for Semiparametric Regression Models—◆Bo Kai, College of Charleston; Runze Li, Penn State; Lan Wang, University of Minnesota

11:35 a.m. Parametric Additive and Semiparametric Models in the Presence of Heteroscadicity—◆Ahmet Sezer, Anadolu University

11:50 a.m. Floor Discussion

677 CC-216 (West)

Nonparametric Approaches to Moderate and High-Dimensional Data—Contributed

Section on Nonparametric Statistics
Chair(s): Nedret Billor, Auburn University

10:35 a.m. Spatial Shrinkage Estimation of Diffusion Tensors in Diffusion-Weighted Magnetic Resonance Imaging Data—◆Tao Yu, National University of Singapore

10:50 a.m. A Robust Statistical Framework for eQTL Analysis—◆Mohamedou Sow, Samuel Lunenfeld Research Institute; Gilles Durrieu, University Bordeaux 1; Laurent Briollais, Samuel Lunenfeld Research Institute

11:05 a.m. Accuracy, Bias, and Notable Observations for Experimental Actigraphy Data—◆Juergen Symanzik, Utah State University; Peter M. Sherick, Utah State University; William D. Shannon, Washington University School of Medicine

11:20 a.m. Some Reasons to Smile: Implied Volatilities in Presence of Pricing Error—◆Zheng Xu, Iowa State University; Song X. Chen, Iowa State University/Peking University

11:35 a.m. Detecting Significance Level of Activation Using Self-Calibrating Method in fMRI—◆Hana Lee, The University of North Carolina at Chapel Hill; Young K. Truong, The University of North Carolina at Chapel Hill; Xuemei Huang, Penn State

12:05 p.m. Floor Discussion

678 CC-204 (West)

■ ✪ New Developments in Classical and Optimal Design of Experiments—Contributed

Section on Physical and Engineering Sciences, Section on Quality and Productivity
Chair(s): Yuefeng Lu, Eli Lilly and Company

10:35 a.m. Maximin Model-Robust Designs for Split Plot Experiments—◆Byran Jay Smucker, Penn State; Enrique Del Castillo, Penn State; James Rosenberger, Penn State

10:50 a.m. Optimal Design for Statistical Inference—◆Steven Gilmour, Queen Mary University of London; Luzia Trinca, UNESP - Botucatu

11:05 a.m. Dispersion Contrasts—◆Richard N. McGrath, Bowling Green State University

11:20 a.m. Considerations in Obtaining Nearly Orthogonal Arrays—◆Ryan Lekivetz, Simon Fraser University; Randy Sitter, Simon Fraser University; Derek Bingham, Simon Fraser University; Michael Hamada, Los Alamos National Laboratory; Leslie Moore, Los Alamos National Laboratory; Joanne Wendelberger, Los Alamos National Laboratory

11:35 a.m. Search Designs Under a Tree Structure—◆Kashinath Chatterjee, Visva-Bharati University

11:50 a.m. Structural Properties of Optimum Designs and Their Interrelations in Model Identification and Discrimination for 2 ^m Factorial Experiments—Subir Ghosh, University of California, Riverside; ◆Mike Huang, University of California, Riverside

12:05 p.m. Another Look at Foldover and Semifoldover for Two-Level Orthogonal Designs—◆David Edwards, Virginia Commonwealth University

679 CC-203 (West)

■ ✪ Reliability Analysis and Yield Modeling—Contributed

Section on Quality and Productivity
Chair(s): William F. Guthrie, National Institute of Standards and Technology

10:35 a.m. Bayesian Methods for Supercomputer Reliability Data—◆Sarah Michalak, Los Alamos National Laboratory; Todd Graves, Los Alamos National Laboratory; Lori Pritchett-Sheats, Los Alamos National Laboratory

10:50 a.m. Bayesian Analysis of Multistage Process Yields—◆Patrick J. Gaffney, ImClone Systems; Alan Richter, ImClone Systems

11:05 a.m. Hierarchical Approach to Yield Modeling: Applications of GLMs—◆Christina Mastrangelo, University of Washington

11:20 a.m. Random Contamination of Semiconductor Materials—◆Bernard Harris, University of Wisconsin

11:35 a.m. Field-Failure and Warranty Prediction Based on Auxiliary Use-Rate Information—◆Yili Hong, Virginia Tech; William Q. Meeker, Iowa State University

11:50 a.m. Reliability Analysis Based on Warranty Data with Sale and Report Lag—◆Shuen-Lin Jeng, National Cheng Kung University

12:05 p.m. Optimal Age Replacement Time with Minimal Repair Based on Cumulative Repair-Cost Limit for a System Subjected to Shocks—◆Shey-Huei Sheu, Providence University; Chin-Chih Chang, Providence University; Yu-Hung Chien, National Taichung Institute of Technology

680 CC-218 (West)

Algorithms—Contributed

Section on Statistical Computing
Chair(s): Giovanni Petris, University of Arkansas

10:35 a.m. Determining the Roots of a Hypergeometric Polynomial—◆Bruce Barrett, The University of Alabama

10:50 a.m. A Fast and Globally Convergent Method for Estimating General Scale-Shape Distributions—◆Kai-Sheng Song Song, University of North Texas

11:05 a.m. A Stochastic Search Approach to Solving the Cell Suppression Problem for Three-Dimensional Hierarchical Tables—◆Matt Fetter, National Agricultural Statistics Service

✪ Theme Session ■ Applied Session ◆ Presenter CC–Vancouver Convention Centre FW–Fairmont Waterfront Hotel

11:20 a.m. A Practical Algorithm for Exact Inference on Tables—◆Jeffrey W. Miller, Brown University; Matthew T. Harrison, Brown University

11:35 a.m. A Dominated Rejection Algorithm for Generating Random Variates—◆Timothy Hall, PQI Consulting

11:50 a.m. Floor Discussion

681 CC-214 (West)

OMICS—Contributed

Section on Statistical Computing

Chair(s): Wenxuan Zhong, University of Illinois

10:35 a.m. Distribution of Statistics of h-GAP Clusters for a Collection of Words—◆Deidra Andrea Coleman, North Carolina State University; Donald E.K. Martin, North Carolina State University

10:50 a.m. Exact Distribution of Prediction Error Rates for Protein and Domain Interactions—◆Donald E.K. Martin, North Carolina State University; John Aston, University of Warwick

11:05 a.m. Tumor Class Prediction Using Gene Expression Microarray Data—◆Xueli Liu, City of Hope; Mark Yang, University of Florida; Jeffrey Longmate, City of Hope

11:20 a.m. Parsimonious Models for Classifying Proteomic MS Data—◆Chris Fraley, Insilicos LLC; Bryan Prazen, Insilicos LLC; Mark Seligman, Insilicos LLC

11:35 a.m. Genomewide Detecting Differential Epigenetic/Genetic Changes Using Next-Gen Sequencing Data—◆Weichun Huang, National Institute of Environmental Health Sciences; Nicole V. Jordan, The University of North Carolina at Chapel Hill; Amy N. Abell, The University of North Carolina at Chapel Hill; Gary L. Johnson, The University of North Carolina at Chapel Hill; Leping Li, National Institute of Environmental Health Sciences

11:50 a.m. Moments of Strings of DNA Bases—◆Robert J. Blodgett, FDA; Errol Strain, FDA

12:05 p.m. Statistical Methods of Exon Resequencing for Detecting Associations with Rare Variants—◆Judy Zhong, Sage Bionetworks; Charles Kooperberg, Fred Hutchinson Cancer Research Center

682 CC-221 (West)

Theoretical Approaches and Visualization Techniques—Contributed

Section on Statistical Graphics

Chair(s): Heike Hofmann, Iowa State University

10:35 a.m. Bias Reduction for High-Dimensional Multivariate Data—◆Siamak Noorbaloochi, VA Medical Center, Minneapolis; David Nelson, VA Medical Center, Minneapolis

10:50 a.m. Model Assessment for Space-Time Point Processes Using Super-Thinning—◆Robert Alan Clements, University of California, Los Angeles; Alejandro Veen, IBM T.J. Watson Research Center; Rick Schoenberg, University of California, Los Angeles

11:05 a.m. Robust Gaussian Graphical Lasso—◆Hokeun Sun, University of Pennsylvania

11:20 a.m. An Application of Location-Dispersion Orthogonality in Quadratic Discriminant Analysis—◆Santiago Velilla, Universidad Carlos III de Madrid

11:35 a.m. Testing Equality of Independent Component Analysis Profiles—◆Hui Huang, University of Maryland Baltimore County; Anindya Roy, University of Maryland Baltimore County

11:50 a.m. Maximum Likelihood Histogram Densities—◆James S. Weber, Consultant

12:05 p.m. A Modified Adjusted Boxplot for Skewed Distributions—◆Yinaze Herve Dovoedo, The University of Alabama; Subhabrata Chakraborti, The University of Alabama

683 CC-18 (East)

Statistical Methods and Applications in Marketing—Contributed

Section on Statistics and Marketing

Chair(s): Lynd Bacon, Loma Buena Associates

10:35 a.m. A Family of Enhanced Ridge Regressions in Comparison with Adjusted Shapley Model—◆Stan Lipovetsky, GfK Custom Research North America

10:50 a.m. Identifying Groups: A Comparison of Segmentation Methodologies—◆Sam Woolford, Bentley University; Abdolreza Eshghi, Bentley University; Dominique Haughton, Bentley University; Pascal Legrand, Group ESC-Clermont-CRCGM; Maria Skaletsky, Bentley University

11:05 a.m. Analysis of Discrete Choice Models with Latent Variable in Unobserved Component of Utility—◆Woosuk Kim, University of Cincinnati; Seongho Song, University of Cincinnati; Young Seuk Cho, Pusan National University

11:20 a.m. A Hierarchical Bayesian Model for the Analysis of Customer Choice Data—◆Zhe Chen, Penn State; Duncan K.H. Fong, Penn State

11:35 a.m. Reducing Choice Set Sizes for Factorial Plans—◆Pallavi Chitturi, Temple University; Jing Chen, Temple University

11:50 a.m. Assessing Clusterability in a Model-Based Framework—◆Ewa Nowakowska, GfK Polonia

12:05 p.m. Floor Discussion

684 CC-112 (West)

✪ Methods for Growth Curves and Trajectories—Contributed

Section on Statistics in Epidemiology

Chair(s): Victoria Landsman, National Cancer Institute

10:35 a.m. On Growth Dynamics When the Time of Growth Is Unknown—◆Kai Fun Yu, Eunice Kennedy Shriver National Institute of Child Health and Human Development

10:50 a.m. Evaluation of Alternative Methods for Constructing Pediatric Growth Charts Based on the 2000 CDC Growth Charts—◆Rong Wei, National Center for Health Statistics; Lester Randolph Curtin, CDC

11:05 a.m. Trajectory of Postpartum Depression Screening Scores—◆Peter C. Wollan, Olmsted Medical Center; Barbara P. Yawn, Olmsted Medical Center

11:20 a.m. Principal Trend Ratio Regression: Comparing Nonlinear Longitudinal Trajectories Between Groups via a Ratio of Inter-Period Changes When a Linear Trend Fits Poorly—◆Robert M Boudreau, University of Pittsburgh

11:35 a.m. Causal Inference with Latent Growth Mixture Modeling—◆Booil Jo, Stanford University

11:50 a.m. Using a Nonlinear Mixed Effects Model to Estimate Anthrax Antibody Longevity and Decay—◆Lydia S.D. Foster, Atlanta Research and Education Foundation; Charles E. Rose Jr., CDC; Conrad Quinn, CDC

12:05 p.m. Floor Discussion

685 CC-110 (West)

■ ✪ Adjusting for Nonresponse via Novel Weighting Methodologies—Contributed

Section on Survey Research Methods, Section on Government Statistics
Chair(s): Fritz Scheuren, NORC

10:35 a.m. Inverse Probability Weighting for Clustered Nonresponse—◆Chris Skinner, University of Southampton

10:50 a.m. Use of Propensity Weights and Categories in a Two-Stage Survey—Pedro Saavedra, ICF Macro; ◆Martin Wulfe, ICF Macro; Daniel Geller, ICF Macro; Lee Harding, ICF Macro; Sheku Kamara, U.S. Department of Agriculture; Ted Macaluso, U.S. Department of Agriculture

11:05 a.m. Using Call-Back Data to Adjust for Nonignorable Nonresponse: Results of an Empirical Study—◆Paul Biemer, RTI International; Kevin Wang, RTI International; Patrick Chen, RTI International

11:20 a.m. Use of Single Years of Age in the National Survey on Drug Use and Health (NSDUH) Weighting to Improve Drug Prevalence Estimates—◆Patrick Chen, RTI International; Neeraja Sathe, RTI International; Michael Jones, Substance Abuse and Mental Health Services Administration; Lanting Dai, RTI International; Jeff Laufenberg, RTI International; Ralph E. Folsom, RTI International; Harper Gordek, RTI International

11:35 a.m. Nonparametric Estimation of Response Probabilities in Survey Sampling: An Empirical Investigation—◆Audrey Beliveau, Université de Montréal; David Haziza, Université de Montréal

11:50 a.m. Floor Discussion

686 CC-202 (West)

■ ✪ Statistical Issues in Survey Sampling—Contributed

Social Statistics Section, Section on Government Statistics
Chair(s): Margaret Devers Carroll, National Center for Health Statistics

10:35 a.m. Confidence Intervals for the Amount of Heterogeneity in Meta-Analysis: Small-Sample Properties and Robustness to Non-Normality—◆Kari Kraemer, Iowa State University; Douglas Bonett, Iowa State University

10:50 a.m. Sample Size Planning to Obtain Narrow Confidence Intervals for the RMSEA—◆Ken Kelley, University of Notre Dame; Keke Lai, University of Notre Dame

11:05 a.m. Modeling the Impact of Neurocognitive Impairment on Occupational Functioning: An Application to Bipolar Disorder—◆Vivian H. Shih, University of California, Los Angeles School of Public Health; Carrie E. Bearden, University of California, Los Angeles School of Medicine; Michael Green, University of California, Los Angeles School of Medicine; Catherine A. Sugar, University of California, Los Angeles School of Public Health; Michael Gitlin, University of California, Los Angeles School of Medicine; Altshuler L. Lori, University of California, Los Angeles School of Medicine

11:20 a.m. Coordinate-Free Multiplicative Models for Contingency Tables—◆Anna Klimova, University of Washington; Tamas Rudas, Eotvos Lorand University, Budapest; Adrian Dobra, University of Washington

11:35 a.m. Simulating the Characteristics of Populations at the Small-Area Level: New Validation Techniques for a Spatial Microsimulation Model in Australia—◆Azizur Rahman, University of Canberra; Ann Harding, National Centre for Social and Economic Modelling; Robert Tanton, National Centre for Social and Economic Modelling; Shuangzhe Liu, National Centre for Social and Economic Modelling

11:50 a.m. Assessing the Association Between the Crime Rates from the National Crime Victimization Survey and the Uniform Crime Reporting Program—◆Jianzhu Li, Westat; Robert E. Fay, Westat

12:05 p.m. Mixed-Effect Models for Repeated Measures of Count Data—◆Paul R. Savariappan, Luther College

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