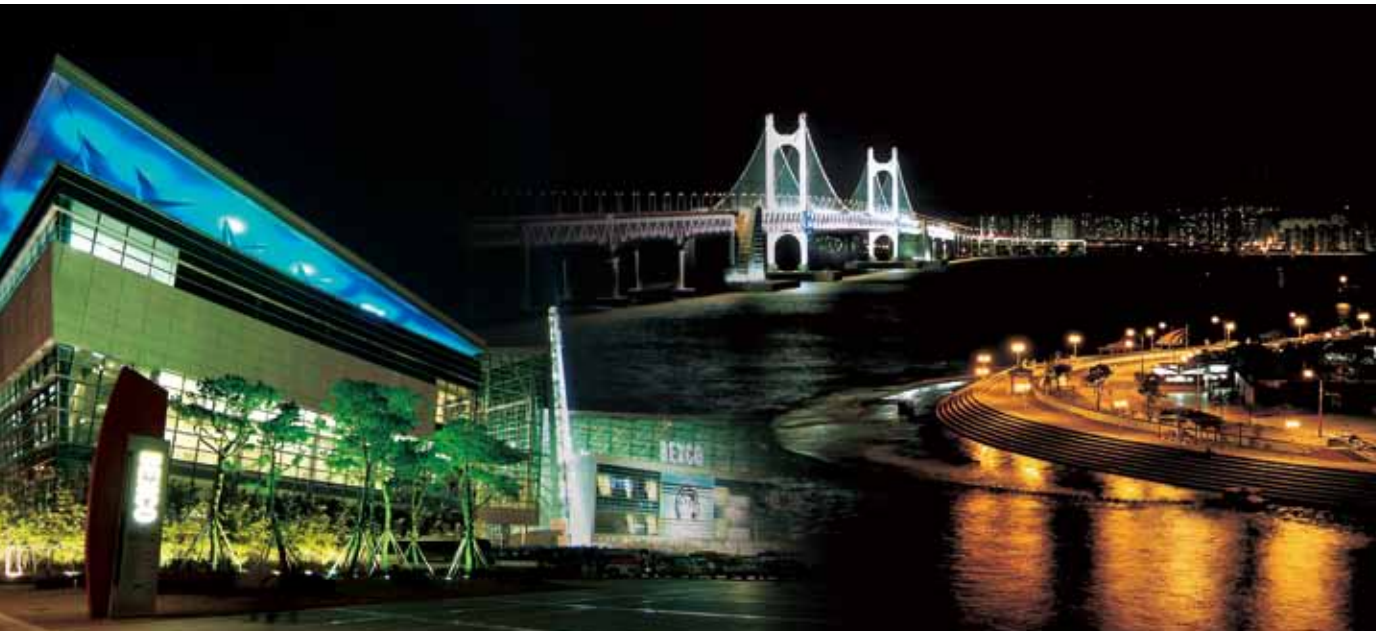
ICM 2012 Busan
The 19th International Conference on Magnetism



THE 19th INTERNATIONAL CONFERENCE ON MAGNETISM

July 8 - 13, 2012 Bexco, Busan, Korea
www.icm2012.org

Hosted by KPS The Korean Physical Society
The Korean Magnetics Society
IUPAP International Union of Pure and Applied Physics

CONTENTS

WELCOME ADDRESS

Dear Colleagues,

On behalf of the Organizing Committee, and all of those who were involved in preparing for the 19th International Conference on Magnetism (ICM2012), we wish to extend a warm-hearted welcome to all participants of ICM2012. It is our great honor and privilege to host the ICM2012 in Korea.

The major scientific societies in Korea, the Korean Physical Society (KPS) and the Korean Magnetics Society (KMS) are pleased to co-host the ICM2012, under the auspices of the International Union of Pure and Applied Physics (IUPAP). The ICM2012 incorporates the International Conference on Strongly Correlated Electron Systems (SCES) held annually.

As the most highly acclaimed conference, a considerable number of abstracts have been submitted from 52 countries around the world. In this conference, we expect over 1,700 participants around the world. For the scientific program, we have planned 7 plenary lectures including 3 Nobel laureates' lectures, 14 Half-plenary lectures, 509 oral presentations including 135 invited lectures, along with 1,502 poster presentations. In addition, 7 satellite symposia will be held before or after the ICM2012.

I wish to take this opportunity to thank all the sponsors for their generous support for the ICM2012. Also, I would like to convey my sincere gratitude to the international advisory members for their valuable advices and to the members of the ICM2012 organizing committee for their tremendous efforts in making this conference a success.

We wish you all a fruitful meeting and hope that you will benefit from the rich scientific programs, and your visit to wonderful Busan will last forever as a pleasant memory.

Prof. Sung-Chul Shin
Chairperson, ICM2012
President, DGIST

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	Cathy Stampfl	Sydney University	Australia
	Sang-Koog Kim	Seoul National University	Korea

1. Strongly Correlated Electron System (SCES) (including Superconductivity/ Multiferroics)

1-1	Keehoon Kim	Seoul Natonal University	Korea
Multiferroics	Taka-hisa Arima	University of Tokyo	Japan
	M. Fiebig	ETH	Switzerland
	Tsuyoshi Kimura	Osaka University	Japan
	Tae Won Noh	Seoul Natonal University	Korea
	Je-Geun Park	Seoul Natonal University	Korea
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	Changyoung Kim	Yonsei University	Korea
	Matthias Vojta	Technische Universitaet Dresden	Germany
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	Jun Sung Kim	Pohang University of Science and Technology	Korea
	Young-Woo Son	Korea Institute for Advanced Study	Korea
	Han Woong Yeom	Pohang University of Science and Technology	Korea
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Heavy Fermion Systems	Meigan Aronson	Brookhaven National Laboratory	USA
	Piers Coleman	Rutgers University	UK
	Noriaki Sato	Nagoya University	Japan
1-5	Tuson Park	Sungkyunkwan University	Korea
Valence Fluctuations	Jeongsoo Kang	The Catholic University of Korea	Korea
	Kazumasa Miyake	Osaka University	Japan
	Huiqiu Yuan	Zhejiang University	China
1-6	Suchitra Sebastian	University of Cambridge	UK
Non-Fermi Liquids and	A. Huxley	University Edinburgh	UK
Quantum Phase	Yuji Matsuda	Kyoto University	Japan
Transitions	Toby Perring	ISIS	UK

1-7	Steffen Wirth	Max Planck Institute for Chemical Physics of Solids	Germany
Konndo Impurity and	Bernard Coqblin	University Paris	France
Kondo Lattice Systems	Jeongsoo Kang	The Catholic University of Korea	Korea
	Yongseung Kwon	DGIST	Korea
1-8	Takami Tohyama	Kyoto University	Japan
Theory of Strongly	T. Devereaux	Standford University	USA
Correlated Matter	Dirk Manske	Max Planck Institute for Solid State Research	Germany
	Jaejun Yu	Seoul National University	Korea

2. Quantum and Classical Spin Systems

Byungil Min	POSTECH	Korea
Giniyat Khaliullin	Max Planck Institute for Solid State Research	Germany
Mi Young Kim	Ajou University	Korea
Jae-Hoon Park	POSTECH	Korea
Myriam P. Sarachik	City College of New York-CUNY	USA

3. Magnetic Structures and Interactions

Kibong Lee	POSTECH	Korea
Des McMorrow	University College London	UK
Seung-Hun Lee	University of Virginia	USA
Je-Geun Park	Seoul Natonal University	Korea
Kazuyoshi Yamada	KEK	Japan

4. Magnetization Dynamics and Micromagnetics

Sang-Koog Kim	Seoul Natonal University	Korea
Kristen Buchanan	Colorado State University	USA
Sug-Bong Choe	Seoul Natonal University	Korea
Oksana Chubykalo-Fesenko	Instituto de Ciencia de Materiales de Madrid, CSIC	Spain
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Guido Meier	University of Hamburg	Germany

5. Spin-Dependent Transport

Hyun-Woo Lee	POSTECH	Korea
Myung-Hwa Jung	Sogang University	Korea
Stephen Russek	NIST	USA
Henk Swagten	Eindhoven University of Technology	Netherlands
Suzuki Yoshishige	Osaka University	Japan

6. Spin Electronics

Byoung Chul Min	KIST	Korea
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Xiufeng Han	State Key Laboratory of Magnetism	China
Kyung-Jin Lee	Korea University	Korea
Teruo Ono	Kyoto University	Japan
Joerg Wunderlich	Hitachi Cambridge Lab	UK

7. Magnetic Thin Films, Particles and Nanostructure

Sang Ho Lim	Korea University	Korea
Chan Yong Hwang	KRISS	Korea
Tae Hee Kim	Ewha Wonans University	Korea
Seiji Mitani	NIMS	Japan
Zi Q. Qiu	UC-Berkeley	USA

8. Soft and Hard Magnetic Materials and their Applications

Hae-Woong Kwon	Pukyong National University	Korea
Hirotoshi Fukunaga	Nagasaki University	Japan
Satoshi Sugimoto	Tohoku University	Japan
Seong-cho Yu	Chungbuk National University	Korea

9. Novel Materials and Device Applications

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Beongki Cho	Gwangju Institute of Science and Technology (GIST)	Korea
Alessandra Continenza	Universita' degli studi dell'Aquila	Italy
Gendo Oomi	Kurume Institute of Technology	Japan

10. Magnetic Recording and Memories

Eunsik Kim	Samsung Electronic Co.	Korea
Sung Woong Chung	Hynix	Korea
Katsuji Nakagawa	Nihon University	Japan
Shin Saito	Tohoku University	Japan

11. Measuring Techniques and Instrumentation

Derac Son	Hannam University	Korea
Michael Hall	National Physical Laboratory	UK
Massimo Pasquale	INRIM	Italy
Kwon Sang Yoo	KRISS	Korea

12. Industrial Applications

Kyung-Ho Shin	KIST	Korea
Sang Yun Cha	POSCO	Korea

13. Interdisciplinary Topics

Cheol Gi Kim	Chungnam National University	Korea
Hubert Brueckl	AIT Austrian Institute of Technology GmbH	Austria
Wooyoung Lee	Yonsei University	Korea
Jian-Ping Wang	University of Minnesota	USA

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	Seok-Soo Yoon	Andong National University	Korea

Plenary Speakers

Albert Fert	CNRS/Thales and University Paris-Sud	France
*Nobel laureate in Physics (2007)		
Andre Geim	University of Manchester	UK
*Nobel laureate in Physics (2010)		
Klaus von Klitzing	Max Planck Institute for Solid State Research	Germany
*Nobel laureate in Physics (1985)		
Sang-Wook Cheong	Rutgers University	USA
Zachary Fisk	University of California, Irvine	USA
Sadamichi Maekawa	Japan Atomic Energy Agency	Japan
Roland Wiesendanger	University of Hamburg	Germany

Half-Plenary Speakers

Gabriel Aeppli	University College London	UK
Piers Coleman	Rutgers University	UK
Claudia Felser	Max Planck Institute for Chemical Physics of Solids	Germany
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PROGRAM AT-A-GLANCE

Time	July 8 (Sun)	July 9 (Mon)	July 10 (Tue)	July 11 (Wed)	July 12 (Thu)	July 13 (Fri)
08:30		Opening & Award		Plenary 4 PP04		
09:00		Plenary 1 PP01	Half-Plenary 1~6 HP11~HP32		Half-Plenary 9~14 HP51~HP72	Invited & Contributed JA~JJ
10:00		Coffee Break		Plenary 5 PP05		
11:00		Plenary 2 PP02	Coffee Break	Coffee Break	Coffee Break	Coffee Break
12:00		Plenary 3 PP02	Invited & Contributed CA~CJ	Invited & Contributed FA~FE / Half-Plenary 7-8 HP41~HP42	Invited & Contributed GA~GJ	Invited & Contributed KA~KJ
13:00		Lunch	Lunch		Lunch	Lunch
14:00	Registration	Poster Presentation I PA~PO	Poster Presentation II QA~QP		Poster Presentation III RA~RR	Poster Presentation IV SA~SO
15:00	KPS 60th Anniversary Nobel laureate in Physics Public Lecture					
16:00		Invited & Contributed AA~KJ	Invited & Contributed DA~DJ	Excursion	Invited & Contributed HA~HJ	Plenary 6 PP06
17:00		Break	Break		Break	Plenary 7 PP07
18:00	Welcome Reception	Invited & Contributed BA~BJ	Invited & Contributed EA~EJ		Invited & Contributed IA~IJ	Closing
19:00					Banquet	
20:00						

July 8 (Sun)

	Auditorium	1F				2F						3F	Exhibition
		Room 101~3	Room 106~8	Room 104~5	Room 109~10	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206	Room 301	
08:00													
09:00													
10:00													
11:00													
12:00													
13:00													Registration
14:00													
15:00													
16:00	**KPS 60th Anniversary Nobel laureate in Physics Public Lecture** 1) Albert Fert 2) Klaus von Klitzing												
17:00						**Welcome Reception** (2F, Lobby)							
18:00													
19:00													
20:00													

July 9 (Mon)

	Auditorium	1F				2F						3F	Exhibition
		Room 101~3	Room 106~8	Room 104~5	Room 109~10	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206	Room 301	
08:00													
09:00	Opening&Award												
	PP01 **Plenary 1** Albert Fert												**Exhibition**
10:00	Coffee Break												
11:00	**PP02** **Plenary 2** Sadamichi Maekawa												
12:00	**PP03** **Plenary 3** Zachary Fisk												
13:00	Lunch												
14:00													**PA~PO** **Poster Presentation I**
15:00													
16:00		**AA** Multiferroics I - mainly manganites	**AB** Non-fermi liquids and quantum phase transitions I	**AC** Low-dimensional / Frustrated spin systems	**AD** Surface and interface effects I	**AE** Electric field effect on magnetic systems	**AF** Advanced methods of spin structure determination	**AG** Arrays of magnetic nanostructures I	**AH** Magnetic transducers in biomedicine	**AI** Semiconductor spintronics I - group IV materials	**AJ** Crystalline, nanocrystalline and amorphous materials		
17:00		Break											**Exhibition**
18:00		**BA** Superconductivity I - cuprate and other superconductors	**BB** Valence fluctuations I	**BC** Organic and molecular magnetism / Spin ladder	**BD** Exchange bias	**BE** Magnetic semiconductor	**BF** 3d transition metal oxides	**BG** Energy assisted magnetic recording	**BH** Interdisciplinary technology	**BI** STT MRAM and magnetic logic	**BJ** Ferrites, garnets and other materials		
19:00													
20:00													

July 10 (Tue)

	Auditorium	1F				2F						3F	Exhibition
		Room 101~3	Room 106~8	Room 104~5	Room 109~10	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206	Room 301	
08:00													
09:00		**HP11** Half-Plenary 1 Yoshichika Onuki	**HP21** Half-Plenary 3 Hyun-Woo Lee							**HP31** Half-Plenary 5 Yoshinori Tokura			Exhibition
10:00		**HP12** Half-Plenary 2 Tae-Won Noh	**HP22** Half-Plenary 4 Piers Coleman							**HP32** Half-Plenary 6 Bernhard Keimer			
11:00		Coffee Break											
12:00		**CA** Superconductivity II - cuprate and other superconductors	**CB** Magnetic nanoparticles I	**CC** Spin liquid / Spin ice	**CD** Heavy fermions I	**CE** Spin transfer oscillators	**CF** Actinides and Lanthanides	**CG** Semiconductor spintronics II - group III~V materials	**CH** Heusler alloys etc	**CI** Multiferroics II - scattering	**CJ** Magneto-dielectric materials or meta-materials		Exhibition
13:00		Lunch											
14:00													**QA~QP** Poster Presentation II
15:00													
16:00		**DA** Superconductivity III - Fe-based superconductors	**DB** Kondo systems I	**DC** Spin-orbit / Spin-lattice / Spin-oribital physics	**DD** Diluted magnetic semiconductors and others	**DE** Magnetic memories and logics	**DF** Chiral magnet and magnetic skyrmions	**DG** Magnetic nanowires	**DH** Oxide	**DI** Spin caloritronics I	**DJ** Applications		Exhibition
17:00		Break											
18:00		**EA** Non-fermi liquids and quantum phase transitions II	**EB** SCES Theory I	**EC** Electronic structure / Spintronic materials	**ED** Magnetic thin films and nanostructures I	**EE** Spin-orbit spin torque	**EF** Intermetallic compounds	**EG** Metal spintronics I	**EH** Novel materials and devices I	**EI** Perpendicular magnetic anisotropy materials	**EJ** Rare-earth hard magnetic materials		
19:00													
20:00													

July 11 (Wed)

	Auditorium	1F				2F						3F	Exhibition
		Room 101~3	Room 106~8	Room 104~5	Room 109~10	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206	Room 301	
08:00													
09:00	**PP04** Plenary 4 Klaus von Klitzing												Exhibition
10:00	**PP05** Plenary 5 Roland Wisendanger												
11:00		Coffee Break											
12:00		**FA** Spin caloritronics II		**FB** Heavy fermions II		**FC** Ultrafast switching I	**FD** Vortex dynamics I	**FE** SCES theory II		**HP41** Half-Plenary 7 Stuart Parkin			Exhibition
13:00										**HP42** Half-Plenary 8 Gabriel Aeppli			
14:00													
15:00													
16:00													
17:00		Excursion											
18:00													
19:00													
20:00													

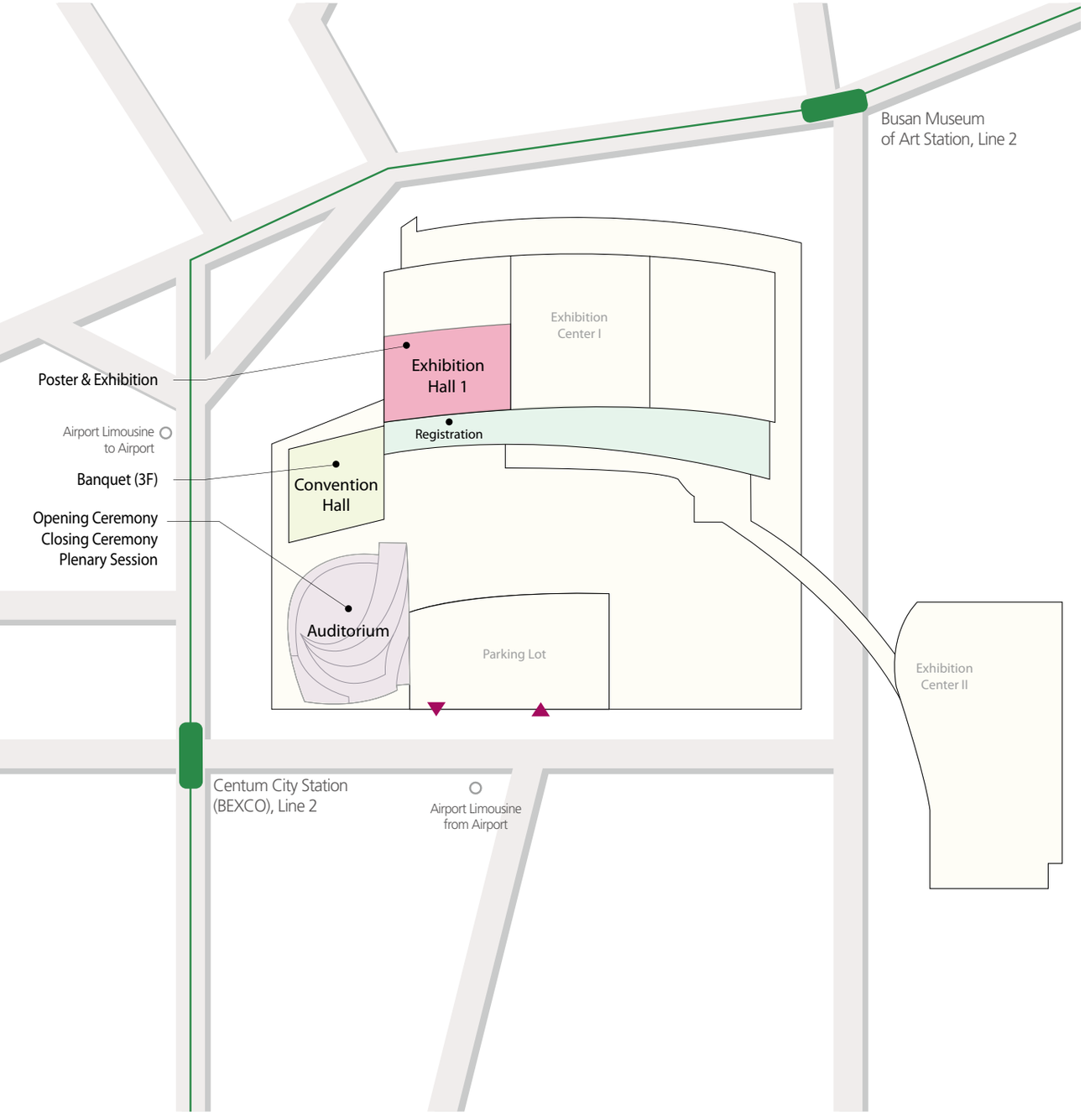
July 12 (Thu)

	Auditorium	1F Room 101~3	1F Room 106~8	1F Room 104~5	1F Room 109~10	2F Room 201	2F Room 202	2F Room 203	2F Room 204	2F Room 205	2F Room 206	3F Room 301	Exhibition
08:00													
09:00		**HP51** Half-Plenary 9 Caroline A. Ross	**HP61** Half-Plenary 11 Xiaozhong Zhang							**HP71** Half-Plenary 13 Shoucheng Zhang			Exhibition
10:00		**HP52** Half-Plenary 10 Hideo Ohno	**HP62** Half-Plenary 12 LJ Heyderman							**HP72** Half-Plenary 14 Claudia Felser			
11:00		Coffee Break											
12:00		**GA** Superconductivity IV - Fe-based superconductors	**GB** Multiferroics III - nonreciprocal effect and elecgtronic ferroelectricity	**GC** Heavy fermions III	**GD** Ultrafast switching II	**GE** Domain wall motion I	**GF** Spin glasses and diluted magnets	**GG** Arrays of magnetic nanostructures II	**GH** Novel materials and devices II	**GI** Organic spintronics and carbon-based spintronics	**GJ** Intermetallic and other hard magnets		Exhibition
13:00		Lunch											
14:00													**RA~RR** Poster Presentation III
15:00													
16:00		**HA** Superconductivity V - Fe-based superconductors	**HB** [Symposium] High performance soft magnetic materials and their applications I	**HC** Magnetism in s,p electron systems	**HD** Spin waves I	**HE** Metal spintronics II	**HF** Spin transfer torque switching	**HG** Magnetometery in nano-scale	**HH** Magnetometry in macro-scale	**HI** Topological insulators I	**HJ** 4d and 5d compounds		Exhibition
17:00		Break											
18:00		**IA** Non-fermi liquids and quantum phase transitions III	**IB** [Symposium] High performance soft magnetic materials and their applications II	**IC** Magnetic phase transition	**ID** Vortex dynamics II	**IE** Domain wall motion II	**IF** Magnetic tunnel junctions	**IG** Valence fluctuations II	**IH** Surface and interface effects II	**II** Topological insulators II	**IJ** Ferrites and other materials		
19:00												Banquet	
20:00													

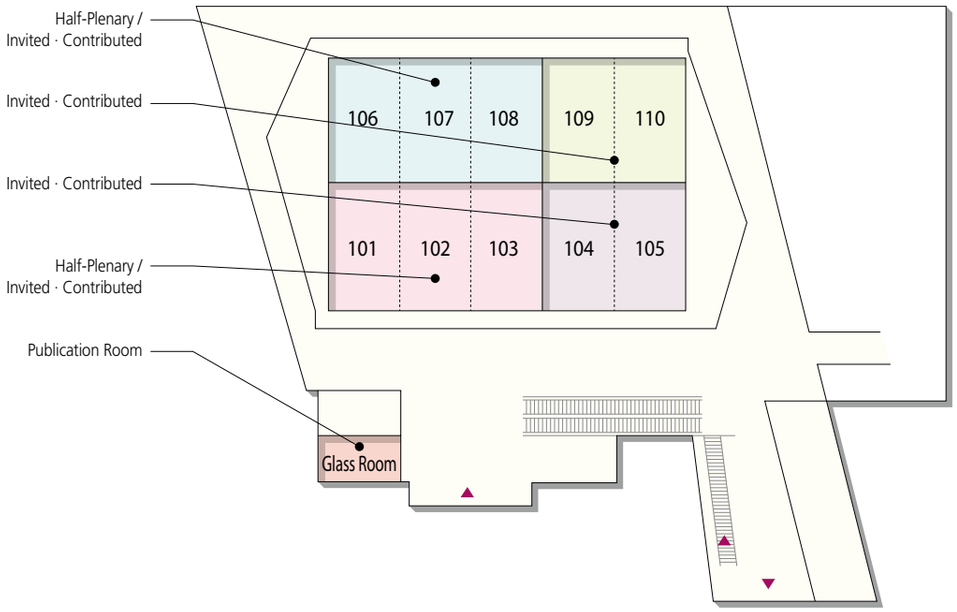
July 13 (Fri)

	Auditorium	1F Room 101~3	1F Room 106~8	1F Room 104~5	1F Room 109~10	2F Room 201	2F Room 202	2F Room 203	2F Room 204	2F Room 205	2F Room 206	3F Room 301	Exhibition
08:00													
09:00		**JA** Superconductivity VI - Fe-based and other superconductors	**JB** Multiferroics IV - noncollinear magnets	**JC** Heavy fermions IV	**JD** Magnetism theory / Simulation of quantum and classical systems	**JE** Domain wall motion III	**JF** Metal spintronics III	**JG** Spin waves II	**JH** Nanostructured and composite hard magnetic materials	**JI** Strong magnetic anisotropy materials	**JJ** Magnetocaloric effects / Magnetoelastic materials		Exhibition
10:00													
11:00		Coffee Break											
12:00		**KA** Kondo systems II	**KB** Magnetic nanoparticles II	**KC** Magnetic thin films and nanostructures II	**KD** Characterization of magnetic properties	**KE** Domain walls and spin ice system	**KF** Novel spintronic devices and materials	**KG** SCES theory III	**KH** Coercivity mechanism	**KI** Theoretical calculation	**KJ** New developments		Exhibition
13:00		Lunch											
14:00													**SA~SO** Poster Presentation IV
15:00													
16:00	**PP06** Plenary 6 Sang-Wook Cheong												Exhibition
17:00	**PP07** Plenary 7 Andre Geim												
18:00	Closing												
19:00													
20:00													

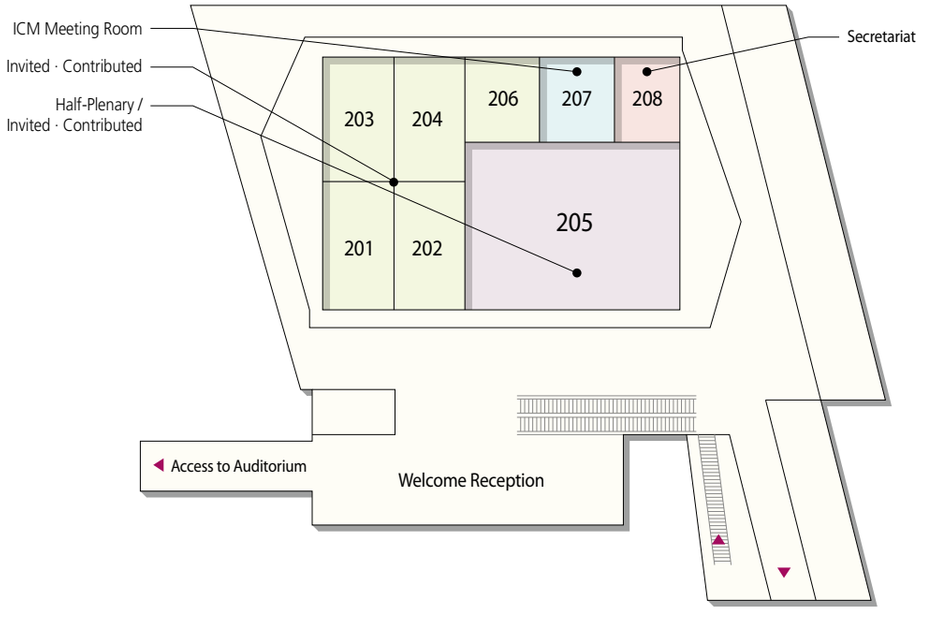
BEXCO



Convention Hall (1F)



Convention Hall (2F)



KPS 60th Anniversary Nobel Laureate Public Lectures in Physics

In celebration of the KPS's 60th anniversary, the Public Lecture of Nobel laureate in Physics will be a program allowing the general public to learn about the interesting aspects of Physics. This public lecture program will be an exciting and enjoyable experience. Please do not miss this change to take the lectures on free.

This public lecture program will be an exciting and enjoyable experience for Korean audience interested in Physics.

- Date & Time: July 8 (Sun), 15:00~17:00
- Venue: Auditorium
- Lecture: 1. Prof. Albert Fert - Spintronics and its impact on inforamtion and communication technologies
  2. Prof. Klaus von Klitzing - New applications of my Nobel prize

Welcome Reception

You will experience a warm welcome from the host of ICM2012. All participants are highly welcome.
Light refreshments and beer will be provided free of charge.

- Date & Time: July 8 (Sun), 17:00~19:00
- Venue: Lobby of Convention Hall, 2F

Opening Ceremony

ICM2012 will officially get started with a ceremony at Auditorium in Bexco. All registered participants are cordially invited to join us and celebrate the official opening.

- Date & Time: July 9 (Mon), 08:30~09:00
- Venue: Auditorium

ICM Award 2012

The IUPAP Magnetism Award and Néel Medal are presented every three years at the International Magnetism Conference to a scientist in recognition of an outstanding contribution to the field of magnetism. The award is sponsored by Elsevier Science B.V.. The IUPAP Young Scientist Medals in the field of magnetism are presented every three years at the International Magnetism Conference. The medals are sponsored by IUPAP.

- Date & Time: July 9 (Mon), 08:30~09:00
- Venue: Auditorium

Magnetism Award and Néel Medal 2012

· Sadamichi Maekawa (Japan Atomic Energy Agency, Japan)
Heat and spin

· Yoshinori Tokura (University of Tokyo, Japan)
Electrodynamics of skyrmions

Young Scientist Medals in the Field of Magnetism

· Suchitra E. Sebastian (University of Cambridge, UK)
Nodal pocket revealed by quantum oscillations in an underdopedcuprate superconductor

Banquet

Please join us to share an unforgettable evening. A delicious dinner with a traditional Korean music show, Samulnori (traditional percussion quartet) and 'B-boy', is combined to recreate the wonderful excitement performance.

- Date & Time: July 12 (Thu), 19:00~20:30
- Venue: Room 301 (3F), Convention Hall

Closing Ceremony

Have the opportunity to say farewell to friends and colleagues and to preview the next venue of ICM2015.

- Date & Time: July 13 (Fri), 17:30~18:00
- Venue: Auditorium

Industrial Tour

Participants those who applied for industrial tour of Samsung Heavy Industries Co., Ltd. should be gathered at 13:20 on July 11 (Wed) at the lobby. We will leave 13:30 on time. Application can be acceptable until 10:00 on July 9 at the information desk (Max. 100 people).

- Date & Time: July 11 (Wed), 13:30~18:00
- Destination: Samsung Heavy Industries Co., Ltd.

Scientific Program

ICM2012 program will consist of 7 plenary talks (1 hr), 14 half-plenary talks (45 min) and 135 invited talks (30 min). Over 2,000 contributed papers will be presented, 353 of them have been selected for oral presentation (15 min). In addition, poster presentations with ample time for discussion will be conducted. The official conference language is English. The program will focus on following topics;

1. Strongly Correlated Electron System (SCES)
2. Quantum and Classical Spin Systems
3. Magnetic Structures and Interactions
4. Magnetization Dynamics and Micromagnetics
5. Spin-Dependent Transport
6. Spin Electronics
7. Magnetic Thin Films, Particles and Nanostructures
8. Soft and Hard Magnetic Materials and Their Applications
9. Novel Materials and Device Applications
10. Magnetic Recording and Memories
11. Measuring Techniques and Instrumentation
12. Industrial Applications
13. Interdisciplinary Topics

Registration

All attendees will be required to wear the ICM2012 badge to access to all session.

- Venue: Lobby, Exhibition Hall 1
- Operation: July 8 (Sun) / 13:00~19:00
  July 9 (Mon) ~ 12 (Thu) / 08:00~19:00
  July 13 (Fri) / 08:00~13:00

Registration Fee

Category		On-site Registration
Registration Fee	Regular Participant	KRW 750,000
	Student/Retired Participant	KRW 400,000
	Accompanying Person	KRW 250,000
Banquet Fee (July 12)	All Participants	KRW 60,000

* Participant's registration includes: Welcome reception, coffee breaks, admission to all scientific sessions, and a conference bag including abstract book
* Accompanying person's registration includes: Welcome reception, coffee breaks, banquet coupon and conference bag.
  Admission to scientific sessions is not included.

Certificate of Attendance

The certificate of attendance is provided at the information desk on request or available for download via the website after the conference (www.icm2012.org).

Internet Lounge

Internet access will be available during the conference at the Exhibition Hall where a PC computer pool will be provided.

Oral Presentation Guideline

Authors are expected to bring their presentations on their own laptop computer, and to have it powered up and ready to connect to the projector. Only standard PC-style VGA connections to the LCD projector will be supplied, therefore you must supply any required adaptor to connect up your computer.

Poster Presentation Guideline

Posters are displayed in the Exhibition Hall 1 (1F). Poster should be posted by 08:30 and dismantled after 18:00 on the allotted date. The secretariat will not be held liable for any lost or damaged posters. All poster presenters are encouraged to be at their poster panels for discussion with participants during the time. All posters will be eligible for nomination for the best poster awards in each day.

- Venue: Exhibition Hall 1
- Operation: July 9, 10, 12, 13 (4days), 13:30~15:30
  Affixation: 08:30~13:00 / Presentation: 13:30~15:30 / Removal: 18:00~19:00

- Affixation & Removal: All presenters are requested to affix their posters and remove them after their presentation according to the above schedule.The secretariat will not be held liable for any posters lost or damaged.
- Best Poster Award: There is a competition for the best poster. This award is given to recognize excellence in research and presentation. There will be two awards for each day. Each session chair is to nominate a single poster. The final review will be run by program executive members and the best awards are announced 30 minutes before the closing of the session.

Publication Room

Authors can check the status of their manuscripts in the Publication Room, located in the Glass Room on the first floor of convention hall. Office hour of the Publication Room for authors will be as follows.

- Operation Hours: July 9 (Mon), 15:00~17:00
  July 10 (Tue), 12 (Thu), 10:00~12:00, 15:00~17:00
  July 11 (Wed), 13 (Fri), 10:00~12:00

Coffee Break

Enjoy your break with a cup of coffee or tea that will be prepared as below;

	July 9 (Mon)	July 10 (Tue)	July 11 (Wed)	July 12 (Thu)	July 13 (Fri)
Morning	10:00~10:20	10:30~11:00	10:30~11:00	10:30~11:00	10:30~11:00
	Lobby Auditorium	1F, 2F Lobby Conventional Hall	1F, 2F Lobby Conventional Hall	1F, 2F Lobby Conventional Hall	1F, 2F Lobby Conventional Hall
Afternoon	13:30~15:30	13:30~15:30	-	13:30~15:30	13:30~15:30
	Exhibition Hall	Exhibition Hall	-	Exhibition Hall	Exhibition Hall

Cloak Room

The cloakroom will be located in the exhibition hall so that you could keep your luggage during the conference.

Water Station

One or two bottles of water will be provided each day. The Water Coupons will be given to all participants when you register. It will be contributed at the cloak room.

Complimentary Shuttle Service

Shuttle bus will run between the conference venue and hotels. You may check the schedule and shuttle bus stop. The bus stop will be marked with banner stands at BEXCO.

Hotel	July 8 (Sun)		July 9 (Mon)		July 10 (Tue)		July 11 (Wed)		July 12 (Thu)		July 13 (Fri)	
	H→B	B→H	H→B	B→H	H→B	B→H	H→B	B→H	H→B	B→H	H→B	B→H
The Westin Chosun Busan	13:00 14:00	18:00 19:00	08:00 08:30	19:10 19:40	08:00 08:30	19:10 19:40	08:00 08:30	13:00 14:00	08:00 08:30	19:10 21:00	08:00 08:30	18:30 19:00
Paradise Hotel Busan Seacloud Hotel	13:00 14:00	18:00 19:00	08:00 08:30	19:10 19:40	08:00 08:30	19:10 19:40	08:00 08:30	13:00 14:00	08:00 08:30	19:10 21:00	08:00 08:30	18:30 19:00
Hotel Riviera Haeundae	13:00 14:00	18:00 19:00	08:00 08:30	19:10 19:40	08:00 08:30	19:10 19:40	08:00 08:30	13:00 14:00	08:00 08:30	19:10 21:00	08:00 08:30	18:30 19:00
Novotel Hotel Busan Ambassador	13:00 14:00	18:00 19:00	08:00 08:30	19:10 19:40	08:00 08:30	19:10 19:40	08:00 08:30	13:00 14:00	08:00 08:30	19:10 21:00	08:00 08:30	18:30 19:00
Lotte Hotel Busan	14:00	19:00	8:00	19:10	8:00	19:10	8:00	13:00	8:00	19:10	8:00	18:30
Hanwha Resort	13:00 14:00	18:00 19:00	08:00 08:30	19:10 19:40	08:00 08:30	19:10 19:40	08:00 08:30	13:00 14:00	08:00 08:30	19:10 21:00	08:00 08:30	18:30 19:00

* H→B: From Hotel to Bexco, B→H: From Bexco to Hotel
* Shuttle Service won`t be provided for Haeundae Centum Hotel and ARPINA Buasn Youth Hostel located in walking distance.
* Participant who is staying in Haeundae Grand Hotel, please take a shuttle bus at the Westin Chosun Busan.

Venue: BEXCO (Busan Exhibition Convention Center)

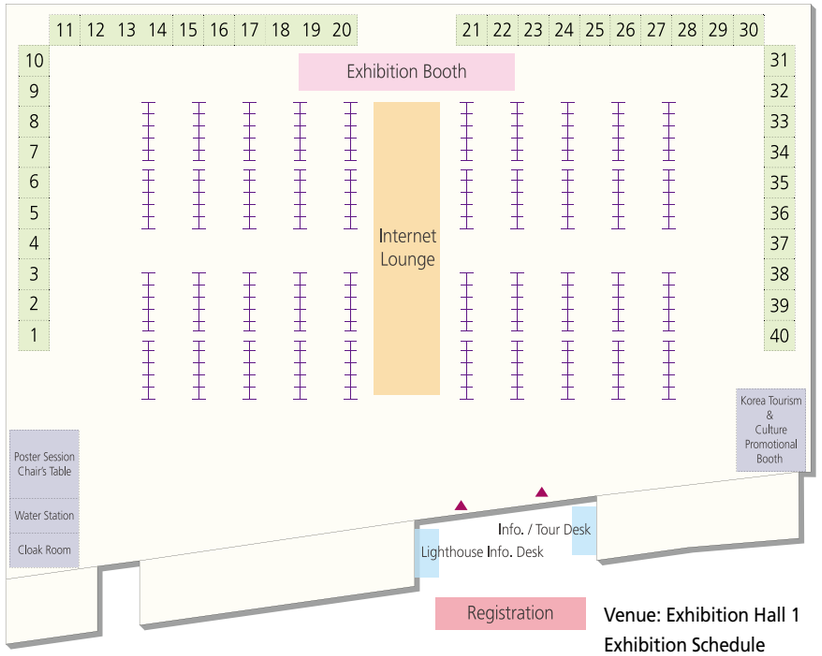
BEXCO, a landmark in the world-famous port city of Korea, has emerged as the most competitive exhibition and convention center in Northeast Asia.

- Address 43 APEC-ro, Haeundae-gu, Busan 612-740, Korea
- Tel +82-51-740-7300
- Fax +82-51-740-7320
- Website www.bexco.co.kr

ICM2012 Secretariat

- **Onsite Secretariat Office:** Room 208, Convention Hall, Tel: 051-740-3730
- **After the Conference:** 1f Haeoreum Bldg.,16, Yeoksamro 17 gil, Gangnam-gu, Seoul 135-925, Korea
  Tel: +82-2-557-8422 Fax: +82-2-566-6087 Email: icm@icm2012.org
  Website: www.icm2012.org

Exhibition Hall (1F)



Venue: Exhibition Hall 1

Exhibition Schedule

- Installation: Shell Scheme Booth: July 8 (Sun) 08:00~
  Exhibits & Display: July 8 (Sun) 18:00~24:00
- Exhibition Hours: July 9 (Mon)~12 (Thu), 09:00~19:00
  July 13 (Fri), 09:00~16:00
- Removal: July 13 (Fri),16:00~20:00

Exhibitor	Booth No.	Exhibitor	Booth No.	Exhibitor	Booth No.
Aaron. Co., Ltd.	16	Hyundai Motor Company	21, 22, 23	Quantum Design	24, 25
Ask Co.	9	ICM2015-Barcelona	40	ReC-SDSW(Seoul National University)	7
Carl Zeiss	27	Korea I.T.S.	17,18	Rigong International Inc.	13
ChangSung Co.	19, 20	Lake Shore Cryotronics	8	Semi-Ence Co., Ltd.	32
Coxem	31	Namotec	15	SmartTip BV	11
Cryogenic Ltd.	30	Nanomagnetics Instruments	10	Springer	36, 37
DGIST	1, 2	NT-MDT ANT Co.	26	Surface Systems Korea	12
Effucell	33	Oxford University Press	38	The Physical Society of Japan	39
ExaTech	29	PANalytical Korea	34	Top Techology Ltd.	14
HANARO @ KAERI	6	Park Systems Co.	35	UNIST	3
Hinds Instruments Inc.	28	Pohang Accelerator Laboratory	4,5		

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DGIST Daegu Gyeongbuk Institute of Science & Technology

Chang Sung Corporation CSC

PAL POHANG ACCELERATOR LABORATORY

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Bronze

Aron Technology Center

KAERI Korea Atomic Energy Research Institute

KITS Korea I.T.S. Co., Ltd.

NT-MDT

RII RISONG INTERNATIONAL INC. (주)이공교역

SSK Surface Systems Korea

SCIENTIFIC PROGRAM

PLENARY LECTURE

Plenary 1

July 9 (Mon), 09:00~10:00, Auditorium
Chairperson: Myriam Sarachik (CUNY, USA)

PP01 **Recent developments and emerging directions in spintronics**
Albert Fert, *Unité Mixte de Physique CNRS/Thales, Palaiseau, and Université Paris-Sud, France*

Plenary 2

July 9 (Mon), 10:20~11:20, Auditorium
Chairperson: Ivan Schuller (UCSD, USA)

PP02 **Heat and spin**
Sadamichi Maekawa, *Japan Atomic Energy Agency, Japan*

Plenary 3

July 9 (Mon), 11:20~12:20, Auditorium
Chairperson: Ernst Bauer (Vienna University of Technology, Austria)

PP03 **Heavy electrons and superconductivity**
Zachary Fisk, *University of California, Irvine, USA*

Plenary 4

July 11 (Wed), 08:30~09:30, Auditorium
Chairperson: Y. Otani (University of Tokyo, Japan)

PP04 **Correlated electrons in quantum hall systems**
Klaus V. Klitzing, *Max-Planck-Institut fur Festkorperforschung, Heisenbergstr.1, D-70569 Stuttgart, Germany*

Plenary 5

July 11(Wed), 09:30~10:30, Auditorium
Chairperson: Qi-Kun Xue (Tsinghua University, China)

PP05 **From single-atom magnetometry to tailored nanomagnets and atomic-scale spintronic devices**
Roland Wiesendanger, *Institute of Applied Physics, University of Hamburg, Germany*

Plenary 6

July 13 (Fri), 15:30~16:30, Auditorium
Chairperson: L. Chapon (Institut Laue-Langevin, France)

PP06 **Multiferroic vortex network with $Z_{2x}Z_3$ symmetry**
Sang-wook Cheong, *Rutgers University, USA*

Plenary 7

July 13 (Fri), 16:30~17:30, Auditorium
Chairperson: Yoon Hee Jeong (POSTECH, Korea)

PP07 **Graphene's magnetism**
Andre Geim, *University of Manchester, United Kingdom*

Half-Plenary 1, 2

July 10 (Tue), 09:00~10:30, Room 101~3 (1F)

Chairperson: Hilbert V. Lohneysen (Karlsruhe Institute of Technology, Germany)

HP11 09:00 **Heavy fermions and unconventional superconductivity in high-quality single crystals of rare earth and actinide compounds**
Yoshichika Onuki, *Graduate School of Science, Osaka University, Japan*

HP12 09:45 **Effects of spin-orbit-coupling in the electronic structures of 5d transition metal oxides**
T. W. Noh, *Physics and Astronomy, Seoul National University, Korea*

Half-Plenary 3, 4

July 10 (Tue), 09:00~10:30, Room 106~8 (1F)

Chairperson: Tomas Jungwirth (Institute of Physics ASCR, Czech Republic)

HP21 09:00 **Magnetization dynamics of rashba ferromagnet**
Hyun-woo Lee, *Department of Physics, POSTECH, Korea*

HP22 09:45 **Giant Ising anisotropy and hastatic order in URu_2Si_2 (1,2)**
Piers Coleman, *Dept of Physics and Astronomy, Rutgers University, United Kingdom*

Half-Plenary 5, 6

July 10 (Tue), 09:00~10:30, Room 205 (2F)

Chairperson: Harold Hwang (Stanford University, USA)

HP31 09:00 **Electrodynamics of skyrmions**
Yoshinori Tokura, *Department of Applied Physics, University of Tokyo, Japan*

HP32 09:45 **Spin and charge fluctuations in cuprate superconductors**
Bernhard Keimer, *Max Planck Institute for Solid State Research, Germany*

Half-Plenary 7, 8

July 11 (Wed), 11:00~12:30, Room 205 (2F)

Chairperson: Eunsik Kim (Samsung Electronic Co., Korea)

HP41 11:00 **The spin on domain walls!**
Stuart Parkin, *IBM Almaden Research Center, USA*

HP42 11:45 **Orbitronics in silicon**
Gabriel Aeppli, *University College London, United Kingdom*

Half-Plenary 9,10

July 12 (Thu), 09:00~10:30, Room 101~3 (1F)

Chairperson: Burkard Hillebrands (TU Kaiserslautern, Germany)

HP51 09:00 **360 degree domain walls in magnetic nanowires**
Caroline A Ross, *Department of Materials Science and Engineering, Massachusetts Institute of Technology, USA*

HP52 09:45 **Perpendicular CoFeB-MgO for spintronics devices**
Hideo Ohno, *CSIS/RIEC, Tohoku University, Japan*

Half-Plenary 11, 12

July 12 (Thu), 09:00~10:30, Room 106~8 (1F)

Chairperson: Yuri Suzuki (Stanford University , USA)

HP61 09:00 **Geometric enhancement of low field magnetoresistance in silicon**
Xiaozhong Zhang, *Department of Materials Science and Engineering, Tsinghua University, China*

HP62 09:45 **Artificial spin ice systems: exploring frustration and emergent magnetic monopoles with nanomagnets**
Laura Heyderman, *Paul Scherrer Institute, Switzerland*

Half-Plenary 13, 14

July 12 (Thu), 09:00~10:30, Room 205 (2F)

Chairperson: Young-Woo Son (KIAS, Korea)

HP71 09:00 **Topological insulators**
Shoucheng Zhang, *Physics, Stanford University, USA*

HP72 09:45 **Heusler compounds: from semiconductors to spintronics**
Claudia Felser, *Max Planck Institute for Chemical Physics of Solids, Germany*

AA: Multiferroics I - mainly manganites

July 9 (Mon), 15:30~17:00, Room 101~3 (1F)

Chairperson: D. Argyriou (European Spallation Source ESS AB, Sweden)

AA01 Orbital and spin states of bi-layered manganites $La_{2-2x}Sr_{1+2x}Mn_2O_7$

15:30 Jae-Hoon Park, *Pohang University of Science and Technology, Korea*

AA02 First-principles calculation of multiferroic bilayer manganite

16:00 Kunihiko Yamauchi[1]* and Silvia Picozzi[2], *[1]ISIR-Sanken, Osaka University, Japan; [2]CNR-SPIN, L'Aquila, Italy*

AA03 Coupling between lattice and spin degrees of freedom in multiferroic h-$RMnO_3$

16:15 Xavier Fabreges[1]*, Sylvain Petit[2] and Isabelle Mirebeau[2], *[1]LNCMI, Toulouse, CNRS, France; [2]Laboratoire Leon Brillouin, CEA Saclay, France*

AA04 Magnetoelectric coupling in hematite amplified by the collective transition

16:30 J. L. Musfeldt[1]*, P. Chen[1], N. Lee[2], S. Mc Gill[3] and S. W. Cheong[2], *[1]Department of Chemistry, University of Tennessee, USA; [2]Department of Physics, Rutgers University, USA; [3]National High Magnetic Field Laboratory, USA*

AA05 Time dependence of multiferroic switching

16:45 Max Baum[1], Thomas Finger[1], Simon Holbein[1], Jonas Stein[1], Jeannis Leist[2], Gotz Eckold[2], Paul Steffens[3], Arno Hiess[3], Karin Schmalzl[3], Petra Becker[4], Ladislav Bohaty[4] and Markus Braden[1], *[1]II. Physikalisches Institut, Universitat zu Koln, Germany; [2]Institut fur Physikalische Chemie, Georg-August-Universitat Gottingen, Germany; [3]Institut Laue-Langevin (ILL), Grenoble, France; [4]Institut fur Kristallographie, Universitat zu Koln, Germany*

AB: Non-fermi liquids and quantum phase transitions I

July 9 (Mon), 15:30~17:00, Room 106~8 (1F)

Chairperson: Gun Sang Jeon (Ewha Womans University, Korea)

AB01 Quantum criticality, non-fermi liquid and unconventional superconductivity

15:30 Qimiao Si, *Department of Physics and Astronomy, Rice University, USA*

AB02 Ternary compounds with $ZrFe_4Si_2$ structure type: A new playground for ferromagnetic and antiferromagnetic quantum criticality

16:00 Christoph Geibel[1]*, Cornelius Krellner[1], Nadang Mufti[1], Helge Rosner[1], Manuel Brando[1], Frank Steglich[1], Stefan Lausberg[1], Alexander Steppke[1], Luis Pedrero[1], Lucia Steinke[1], Robert Kuchler[1], Edith Lengyel[1], Michael Nicklas[1], Christoph Bergmann[1], Katharina Weber[1], Till Goltz[2], Johannes Spehling[2], Nicolas Yeche[2], Hans-henning Klauss[2], Theo Woike[3], Hubertus Luetkens[4], Kamil Sedlak[4] and Christopher Baines[4], *[1]Max Planck Institute for Chemical Physics of Solids, Germany; [2]Institute for Solid State Physics, Technical University Dresden, Germany; [3]Institute for structural Physics, Technical Universty Dresden, Germany; [4]Laboratory for Muon-Spin-Spectroscopy, Paul-Scherrer-Institute, Switzerland*

AB03 Anomalous thermoelectric effects in the heavy fermion superconductor Ce_2PdIn_8

16:30 Marcin Matusiak, Daniel Gnida and Dariusz Kaczorowski*, *Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland*

AB04 Pressure driven quantum critical point in CeNiAsO

16:45 Yongkang Luo[1], Leonid Pourovskii[2], Stephen Rowley[3], Yuke Li[4], Chunmu Feng[1], Antoine Georges[2], N. P. Ong[3], Jianhui Dai[4], Guanghan Cao[1] and Zhuan Xu[1]*, *[1]Department of Physics, Zhejiang University, China; [2]Centre de Physique Theorique, Ecole Polytechnique, France; [3]Department of Physics, Princeton University, USA; [4]Department of Physics, Hangzhou Normal University, China*

AC: Low-dimensional / Frustrated spin systems

July 9 (Mon), 15:30~17:00, Room 104~5 (1F)

Chairperson: Giniyat Khaliullin (MPI, Germany)

AC01 HgTe as a topological insulator

15:30 Laurens Wigbolt Molenkamp, *Experimental Physics 3, University of Wuerzburg, Physics Institute, Germany*

AC02 Spin liquid and spin glass states in frustrated magnets

16:00 Seung-hun Lee, *University of Virginia, USA*

AC03 A novel magnetic order of $ZnCr_2O_4$ revealed by magneto-optical measurements in ultra-high magnetic fields of up to 600 T

16:30 Atsuhiko Miyata[1]*, Shojiro Takeyama[1] and Hiroaki Ueda[2], *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]Department of Chemistry, Graduate School of Science, Kyoto University, Japan*

AC04 Origin and signatures of magnetic chirality in the frustrated multiferroic $Ba_3NbFe_3Si_2O_{14}$

16:45 Andrej Zorko[1], Virginie Simonet[2] and Rafik Ballou[2], *[1]Jozef Stefan Institute, Slovenia; [2]Institut Neel, CNRS and Universite Joseph Fourier, France*

AD: Surface and interface effects I

July 9 (Mon), 15:30~17:00, Room 109~10 (1F)

Chairperson: Atsufumi Hirohata (University of York, UK)

AD01 Investigating magnetic dipolar interactions between Co nano-islands with spin-polarized scanning tunneling microscopy

15:30 Chun-i Lu, Pin-jui Hsu, Szu-wei Chen, Yu-hsun Chu, Chuang-han Hsu, Wang-jung Hsueh and Minn-tsong Lin[1,2*], *[1]Department of Physics, National Taiwan University, 10617 Taipei, Taiwan; 2Institute of Atomic and Molecular Sciences, Academia Sinica, 10617 Taipei, Taiwan*

AD02 Temperature-driven oscillatory magnetic anisotropy in ultrathin ferromagnetic films

16:00 Maciej Dabrowski[1], Uwe Bauer[1], Marek Przybylski[1]*, Marek Cinal[2], Emmanuelle Jal[3], Jean-marc Tonnerre[3] and Jurgen Kirschner[1], *[1]Max-Planck-Institut fur Mikrostrukturphysik, Halle, Germany; [2]Institute of Physical Chemistry of Polish Academy of Sciences, Warszawa, Poland; [3]Institut Neel, CNRS & Universite J. Fourier, Grenoble, France*

AD03 Magnetism of ultrathin Fe films on $BaTiO_3$(001)

16:15 Seolun Yang[1], Jae-sung Kim[1]*, Xumin Chen[2], Axel Enders[2], Jan Honolka[3], Violetta Sessi[4], Tiffany Santos[5] and Matthias Bode[6], *[1]SookMyung Women's University, Korea; [2]University of Nebraska, Lincoln, USA; [3]Max Plank Institute for Solis state physics, Germany; [4]European syncrotron research facility, France; [5]Argon National laboratory, USA; [6]University of Wuerzburg, Germany*

AD04 Thickness-dependent exchange splitting of EuO ultrathin films

16:30 Hidetoshi Miyazaki[1]*, Tetsuya Hajiri[2], Masaharu Matsunami[3], Takahiro Ito[2] and Shin-ichi Kimura[3], *[1]Center for Fostering Young and Innovative Researchers, Nagoya Institute of Technology, Japan; [2]Graduate School of Engineering, Nagoya University, Japan; [3]UVSOR, The Graduate University for Advanced Studies Japan*

AE: Electric field effect on magnetic systems

July 9 (Mon), 15:30~17:00, Room 201 (2F)

Chairperson: X. Xu (Shanxi Normal University, China)

AE01 15:30 **Magnetoelectric control of magnetic anisotropy in ultrathin Fe films using a charge-trap heterostructure**
Uwe Bauer[1], Marek Przybylski[2], Jurgen Kirschner[2] and Geoffrey Beach[1]*, *[1]Materials Science and Engineering, MIT, USA; [2]Max-Planck-Institut fur Mikrostrukturphysik, Germany*

AE02 15:45 **The origin of electric-field effects on magnetic anisotropy in FePd ultrathin film**
Shinya Haraguchi[1], Yuusaku Taguchi[1], Masahito Tsujikawa[2] and Tatsuki Oda[3]*, *[1]Graduate School of Natural Science and Technology, Kanazawa University, Japan; [2]CSIS, Tohoku University, Japan; [3]Institute of Science and Engineering, Kanazawa University, Japan*

AE03 16:00 **Ferroelectric control of spin polarization**
Manuel Bibes[1]*, Vincent Garcia[1], Sergio Valencia[2], Arnaud Crassous[1], Laura Bocher3, Alexandre Gloter[3], Stephane Fusil[1], Karim Bouzehouane[1], Xavier Moya[4], Neil D Mathur[4] and Agnes Barthelemy[1], *[1]Unite Mixte de Physique CNRS/Thales, France; [2]HZB Berlin, Germany; [3]Lab. Physique des Solides, Orsay, France; [4]University of Cambridge, United Kingdom*

AE04 16:30 **Voltage controlled spin transport channel**
Hyuk-jae Jang[1]*, Oleg A. Kirillov[2], Oana D. Jurchescu[3] and Curt A. Richter[2] , *[1]NIST & WFU, USA; [2]NIST, USA; [3]Physics, Wake Forest University, USA*

AE05 16:45 **Zeeman-type spin splitting controlled by an electric field**
Hongtao Yuan[1]*, Mohammad Saeed Bahramy[2], Kazuhiro Morimoto[1], Kentaro Nomura[3], Hidekazu Shimotani[1], Ryotaro Arita[1], Christian Kloc[4], Naoto Nagaosa[1] and Yoshihiro Iwasa[1] , *[1]Department of Applied Physics, University of Tokyo, Japan; [2]CREG, RIKEN, Japan; [3]Department of Physics, Tohoku University, Japan; [4]School of Materials Science and Engineering, Nanyang Technological University, Singapore*

AF: Advanced methods of spin structure determination

July 9 (Mon), 15:30~17:00, Room 202 (2F)

Chairperson: Des McMorrow (University College London, UK)

AF01 15:30 **Femtoscale magnetically induced lattice distortions in multiferroic $TbMnO_3$**
Helen Walker[1]*, Francois De Bergevin[2], Federica Fabrizi[3], Luigi Paolasini[2], Andrew Boothroyd[3], Dharmalingam Prabhakaran[3] and Desmond Mcmorrow[4], *[1]Resonant Scattering and Diffraction Beamline P09, PETRA III, HASYLAB at DESY, Germany; [2]European Synchrotron Radiation Facility, France; [3]Department of Physics, University of Oxford, United Kingdom; [4]London Centre for Nanotechnology, University College London, United Kingdom*

AF02 16:00 **Direct measurement of the interatomic distance dependence of the magnetic exchange interaction**
Alexander Schwarz[1]*, Rene Schmidt[1], Cesar Lazo[2], Stefan Heinze[2] and Roland Wiesendanger[1], *[1]Institute of Applied Physics, University of Hamburg, Germany; [2]Christian-Albrecht University Kiel, Germany*

AF03 16:15 **Magnetic nanodomains in manganites revealed by Lorentz TEM and small-angle electron scattering**
Yoshihiko Togawa[1], Tsukasa Koyama[2], Ken Harada[2] and Shigeo Mori[2], *[1]Nanoscience and Nanotechnology Research Center, Osaka Prefecture University, Japan; [2]Department of Materials Science, Osaka Prefecture University, Japan*

AF04 16:30 **Morin transition control of antiferromagnetic α-Fe_2O_3 films with epitaxial strains**
Seonghun Park[1], Jae-hoon Park[2] and Jae-young Kim[3]*, *[1]deparment of physics, POSTECH, Korea; [2]department of physics, POSTECH, Korea; [3]Pohang Accelerator Laboratory, Korea*

AF05 16:45 **Surface plasmons and magneto-optical activity in hexagonal Ni anti-dot arrays**
Emil Melander*, Evangelos Papaioannou, Vassilios Kapaklis and Bjorgvin Hjorvarsson, *Department of Physics and Astronomy, Division of Materials Physics, Uppsala University, Sweden*

AG: Arrays of magnetic nanostructures I

July 9 (Mon), 15:30~17:00, Room 203 (2F)

Chairperson: J. C. Wu (National Changhua University of Education, Taiwan)

AG01 15:30 **Magnetic nanodots induced novel magnetic phenomena**
Jian Shen, *Department of Physics, Fudan University, China*

AG02 16:00 **Magnetic properties of Fe-(Pt,Pd) thin films patterned by self-assembling of polystyrene nanospheres**
Paola Tiberto[1], Luca Boarino[1], Gabriele Barrera[1], Federica Celegato[1], Marco Coisson[1], Natascia De Leo[1], Franco Vinai[1], Franca Albertini[2], Francesca Casoli[2] and P. Ranzieri[2], *[1]Electromagnetics, INRIM, Italy; [2]IMEM-CNR, Italy*

AG03 16:15 **Position dependence of vortex core oscillation in polygonal nanomagnets**
Satoshi Yakata[1], Masahiko Miyata[2], Kohei Kiseki[3], Hirofumi Wada[2] and Takashi Kimura[1]*, *[1]INAMORI Frontier Research Center, Kyushu University, Japan; [2]Department of Physics, Kyushu University, Japan; [3]Department of Electronics, Kyushu University, Japan*

AG04 16:30 **Huge magnetic anisotropy and coercivity in Fe island and atomic wire on**
Takeshi Nakagawa[1]*, Toshihiko Yokoyama[1], Torsten Methfessel[2], Sandra Perkert[2] and Hans-joachim Elmers[2], *[1]Institute for Molecular Science, Japan; [2]Mainz University, Germany*

AG05 16:45 **Oscillation of critical fields in highly dense arrays of magnetic nanodisks**
Alexey Ognev*, Maxim Stebliy, Alexander Samardak and Ludmila Chebotkevich, *Far Eastern Federal University, Institute of Automation and Control Processes FEBRAS, Russia*

AH: Magnetic transducers in biomedicine

July 9 (Mon), 15:30~17:00, Room 204 (2F)

Chairperson: Cheol Gi Kim (Chungnam National University, Korea)

AH01 15:30 **Magnetic tools for molecular diagnosis**
Joerg Schotter[1]*, Astrit Shoshi[1], Stefan Schrittwieser[1], Hubert Brueckl[1], Frank Ludwig[2], Katerina Soulantika[3], Manfred Meindl[4] and Christian Zilch[5], *[1]Health & Environment Department, AIT Austrian Institute of Technology, Austria; [2]Institute of Electrical Measurement and Fundamental Electrical Engineering, TU Braunschweig, Germany; [3]LPCNO, Universite de Toulouse; INSA, UPS, LPCNO, and CNRS, France; [4]Danube Mobile Communications Engineering (DMCE), Austria; [5]Magna Diagnostics GmbH, Germany*

AH02 16:00 **Control of the living cell machinery with nanomagnets**
Vitalii Zablotskii[1]*, Alexandr Dejneka[1], Oleg Lunov[2], Lubomir Jastrabik[1], Tatiana Syrovets[2] and Thomas Simmet[2], *[1]Applied Optics, Institute of Physics, Czech Republic; [2]Institute of Pharmacology of Natural Products & Clinical Pharmacology, Ulm University, Germany*

AH03 Bio-functionalized magnetic nanoparticles for in-vitro diagnosis of colorectal cancer
16:15 Charles Shieh-yueh Yang[1]*, Herng-er Horng[2], Hong-chang Yang[3], K.W. Huang[4] and Chau-chung Wu[5], *[1]MagQu Co., Ltd., Taiwan; [2]Institute of Electro-optical Science and Technology, National Taiwan Normal University, Taiwan; [3]Department of Physics, National Taiwan University, Taiwan; [4]Department of Surgery & Hepatitis Research Center, National Taiwan University Hospital, Taiwan; [5]Departments of Internal Medicine and Primary Care Medicine, National Taiwan University, Taiwan*

AH04 Multiplexing capabilities of multi-frequency magnetic ratchets
16:30 Benjamin B. Yellen[1,2], Yuyu Ouyang[1], Lu Gao[2], Mukarram A. Tahir[2], Daniel J. Lichtenwalner[3] and Lawrence. N. Virgin[2], *[1]University of Michigan – Shanghai Jiao Tong University Joint Institute, Shanghai Jiao Tong University, Shanghai, P.R.C; [2]Duke University, Department of Mechanical Engineering and Materials Science,Center for Biologically Inspired Materials and Material Systems, Durham, NC 27708, USA; [3]North Carolina State University, Department of Materials Science and Engineering,Raleigh, NC 27606, USA*

AI: Semiconductor spintronics I - group IV materials

July 9 (Mon), 15:30~17:00, Room 205 (2F)

Chairperson: P. Crowell (University of Minnesota, USA)

AI01 Quantum control of single spins in diamond and silicon carbide
15:30 David D. Awschalom*, *Center for Spintronics and Quantum Computation, University of California, USA*

AI02 Dynamical spin injection into p-type Si using the spin pumping and spin transport at room temperature
16:00 Kazuki Kubo[1]*, Eiji Shikoh[1], Kazuya Ando[2], Eiji Saitoh[2], Teruya Shinjo[1] and Masashi Shiraishi[1], *[1]Graduate School of Eng. Sci., Osaka Univ., Japan; [2]Inst. for Materials Research, Tohoku Univ., Japan*

AI03 Studying the optical spin orientation in Ge by exploiting the spin filtering in Fe/MgO/Ge photodiodes
16:15 Christian Rinaldi*, Matteo Cantoni, Daniela Petti and Riccardo Bertacco, *Department of Physics, CNISM and L NESS - Politecnico di Milano, Via Anzani 42, 22100, Italy*

AI04 Transition from spin injection into interface states to the channel in n-Ge
16:30 Abhinav Jain[1], Juan-carlos Rojas[1], Murat Cubukcu[1], Julian Peiro[2], Jean-christophe Le Breton[2], Eric Prestat[1], Celine Vergnaud[1], Lamis Louahadj[1], Celine Portemont[3], Clarisse Ducruet[1], Vincent Baltz[1], Andre Barski[1], Pascale Bayle-guillemaud[1], Laurent Vila[1], Jean-philippe Attane[1], Emmanuel Augendre[4], Serge Gambarelli[1], Henri Jaffres[2], Jean-marie George[2] and Matthieu Jamet[1]*, *[1]INAC, Commissariat a l'Energie Atomique et aux Energies Alternatives, France; [2]Unite Mixte de Physique CNRS-Thales, CNRS, France; [3]CROCUS Technology, France; [4]LETI, Commissariat a l'Energie Atomique et aux Energies Alternatives, France*

AI05 Tunneling anisotropy in crystalline Si/MgO/Fe devices
16:45 Sandeep Sharma[1]*, Aurelie Spiesser[1], Hidekazu Saito[1], Shinji Yuasa[1], Bart J. Van Wees[2] and Ron Jansen[1], *[1]AIST Tsukuba, Japan; [2]Zernike Institute for Advanced Materials, Univ. of Groningen, Netherlands*

AJ: Crystalline, nanocrystalline and amorphous materials

July 9 (Mon), 15:30~17:00, Room 206 (2F)

Chairperson: Hwi-jun Kim (KITECH, Korea)

AJ01 Micromagnetic models in glass-coated microwires with circumferential anisotropy
15:30 Jacob Torrejon[1], Andre Thiaville[1]*, Anne Lise Adenot Engelvin[2] and Manuel Vazquez[3], *[1]Laboratoire de Physique des Solides, Univ. Paris-Sud, CNRS , 91405 Orsay, France; 2CEA, DAM, Le Ripault, 37260 Monts, France; 3Instituto de Ciencia des Materiales, CSIC, 28049 Madrid, Spain*

AJ02 Manipulation of domain wall dynamics in microwires by transverse magnetic field
15:45 Juan Maria Blanco[1], Alexandr Chizhik[2], Valeria Rodionova[3], Mihail Ipatov[2], Valentina Zhukova[2], Ahmed Talaat[2] and Arcady Zhukov[4]*, *[1]Dpto. de Fisica Aplicada, Basque Country University, UPV/EHU, Spain; [2]Dpto. Fisica de Materiales, Fac. Quimicas, Basque Country University, UPV/EHU, Spain; [3]Dpto. Fisica de Materiales, Fac. Quimicas and Faculty of Physics, Basque Country University, Moscow State University and Immanuel Kant Baltic Federal University, Spain; [4]Dpto. Fisica de Materiales, Fac. Quimicas, Basque Country University, UPV/EHU, and Ikerbasque, Basque Foundation for Science, Spain*

AJ03 Effect of process parameters on the microstrucutre and magnetic properties of electrodeposited FeCo thin films
16:00 Wei Lu[1]*, Chenchong He[2], Zhe Chen[2] and Biao Yan[2], *[1]School of Materials Science and Engineering, Tongji University, Shanghai, China; [2]Tongji University, China*

AJ04 Structure and magnetic properties of FeCo alloy synthesized by a one-step polyol process
16:15 Prakash Karipoth, Arun Thirumurugan and Raphael Justin Joseyphus*, *Department of Physics, National Institute of Technology, Tiruchirappalli 620 015, India*

AJ05 Investigations of the magnetic and structural properties of a metalloid-free $Co_{80}Zr_{10}V_{10}$ amorphous alloy
16:30 Eric Fleury[1]*, Christian Meny[2] and Shashank N. Kane[3], *[1]Center for High Temperature Energy MAaterials, Korea Institute of Science and Technology, Seoul, Korea; [2]UMR 7504 CNRS-UDS, Institut de Physique et Chimie des Materiaux de Strasbourg, 67034 Strasbourg, France; [3]School of Physics, D. A. University, Khandwa road Campus, Indore 452001, India*

AJ06 Magnetocaloric effect in Fe-Ni-Zr alloys prepared by rapidly quenched method
16:45 Nguyen Huy Dan[1]*, Nguyen Huu Duc[1], Tran Dang Thanh[1], Nguyen Hai Yen[1], Pham Thi Thanh[1], Ngac An Bang[2], Do Thi Kim Anh[2], Phan The Long[3] and Seong Cho Yu[3], *[1]Institute of Materials Science, 18 Hoang Quoc Viet, Hanoi, Viet Nam; [2]Hanoi University of Science, 334 Nguyen Trai, Hanoi, Viet nam; [3]Department of Physics, Chungbuk National University, Cheongju, Korea*

BA: Superconductivity I - cuprate and other superconductors

July 9 (Mon), 17:20~18:50, Room101~3 (1F)

Chairperson: Hyoung Joon Choi (Yonsei University, Korea)

BA01 Nodal pocket revealed by quantum oscillations in an underdoped cuprate superconductor
17:20 Suchitra Sebastian[1], Gil Lonzarich[1], Neil Harrison[2], Moaz Altarawneh[2], Chuck Mielke[2], Ruixing Liang[3], Doug Bonn[3] and Walter Hardy[3], *[1]Department of Physics, University of Cambridge, United Kingdom; [2]National High Magnetic Field Laboratory, Los Alamos National Laboratory, USA; [3]Department of Physics, University of British Columbia, Canada*

BA02 Low-Dimensional Superconductivity in δ-Doped $SrTiO_3$
17:50 Harold Hwang*, *Stanford University & SLAC, USA*

BA03 Resonant x-ray scattering from YBCO family
18:20 Matthieu Le Tacon[1]*, Giacomo Ghiringhelli[2], Jiri Chaloupka[1], Marco Moretti Sala[3], Santiago Blanco-canosa[1], Matteo Minola[4], Giniyat Khaliullin[1], Thorsten Schmitt[5], Lucio Braicovich6 and Bernhard Keimer[1], *[1]Max Planck Institute For Solid State Research, Germany; [2]CNR-SPIN, Dipartimento di Fisica,Politecnico di Milano, I-20133 Milano, Italy; [3]European Synchrotron Research Facility, France; [4]CNR-SPIN, Dipartimento di Fisica, Politecnico di Milano, Italy; [5]Swiss Light Source, Switzerland; [6]CNR-SPIN, Dipartimento di Fisica, Politecnico di Milano, I-20133 Milano, Italy*

BA04 Evolving electronic structures of high-tc cuprates studied by compton scattering
18:35 Yoshiharu Sakurai[1]*, Masayoshi Itou[1], Bernardo Barbiellini[2], Susmita Basak[2], Robert S. Markiewicz[2], Peter E. Mijnarends[3], Shuichi Wakimoto[4], Masaki Fujita[5], Arun Bansil[2] and Kazuyoshi Yamada[5, 1]*Japan Synchrotron Radiation Research Institute, Japan; [2]Northeastern University, USA; [3]Delft University of Technology, Netherlands; [4]Japan Atomic Energy Agency, Japan; [5]Tohoku University, Japan*

BB: Valence fluctuations I

July 9 (Mon), 17:20~18:50, Room 106~8 (1F)

Chairperson: Hisatomo Harima (Kobe University, Japan)

BB01 Valence fluctuations and their possible role in stabilizing the correlated electron state in the system $Ce_{1-x}Yb_xCoIn_5$
17:20 M. Brian Maple*, *Physics, University of California, San Diego, USA*

BB02 Electronic structures of novel Ce-based systems via photoemission spectroscopy
17:50 J. -S. Kang*, *Department of Physics, The Catholic University of Korea, Korea*

BB03 Valence state and spin state of Fe in $SrFe_{1-x}(Sc,Sn)_xO_3$ perovskites
18:20 Youssef Rizki[1], Jean-marie Le Breton[1]*, Yohann Breard[2], Emeric Folcke[1] and Antoine Maignan[2, 1]*Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France; [2]CRISMAT, UMR 6508 CNRS, ENSICAEN - Universite de Caen, France*

BB04 Physics of cerusn studied on a single crystal
18:35 Jan Fikacek[1]*, Jiri Prchal[1], Jan Prokleska[1], Martin Misek[1], Ivana Cisarova[2], Jeroen Custers[1] and Vladimir Sechovsky[1], *[1]Department of Condensed Matter Physics, Charles University in Prague, Czech Republic; [2]Department of Inorganic Chemistry, Charles University in Prague, Czech Republic*

BC: Organic and molecular magnetism / Spin ladder

July 9 (Mon), 17:20~18:50, Room 104~5 (1F)

Chairperson: Myriam Sarachik (CUNY, USA)

BC01 Quantum effects in molecular single-ion magnets
17:20 Eugenio Coronado[1], J. Baldovi[1], S. Cardona[1], J. M. Clemente-juan[1], A. Gaita-arino[1], F. Luis[2] and M. J. Martinez-perez[2], *[1]Instituto Ciencia Molecular - Universidad Valencia, Spain; [2]Instituto de Ciencia de Materiales de Aragon (ICMA), CSIC-Universidad de Zaragoza, Spain*

BC02 Direct observation of a ferri-to-ferromagnetic transition in a fluoride-bridged 3d-4f molecular cluster
17:50 Jan Gui-hyon Dreiser[1]*, Kasper Steen Pedersen[2], Cinthia Piamonteze[1], Stefano Rusponi[3], Zaher Salman[4], Md. Ehesan Ali[5], Magnus Schau-magnussen[2], Christian Aa. Thuesen[2], Stergios Piligkos[2], Hoegni Weihe[2], Hannu Mutka[6], Oliver Waldmann[7], Peter Oppeneer[8], Jesper Bendix[2], Frithjof Nolting[1] and Harald Brune[3], *[1]Swiss Light Source, Paul Scherrer Institut, Switzerland; [2]Department of Chemistry, Copenhagen University, Denmark; [3]Institute of Condensed Matter Physics, Ecole Polytechnique Federale de Lausanne, Switzerland; [4]Laboratory for Muon Spectroscopy, Paul Scherrer Institut, Switzerland; [5]Center for Theoretical Chemistry, Ruhr-Universitaet Bochum, Germany; [6]Institut Laue-Langevin, France; [7]Physikalisches Institut, Universitaet Freiburg, Germany; [8]Department of Physics and Astronomy, Uppsala University, Sweden*

BC03 Magnetic -filed and angular dependence of magnetism in the triangular mott insulator
18:05 κ-(BEDT-TTF)$2Cu_2(CN)_3$ investigated by 13C NMR
Kazuya Miyagawa, Kentaro Uneda and Kazushi Kanoda, *Department of Applied Physics, University of Tokyo, Japan*

BC04 NMR study of quantum spin liquid in an organic triangular lattice antiferromagnet
18:20 $EtMe_3Sb[Pd(dmit)_2]_2$
Satoru Maegawa[1]*, Tetsuaki Itou[1], Eri Watanabe[1], Tatsuro Kubota[1], Masahide Nishiyama[1], Akira Oyamada[1], Kazuya Kubo[2] and Reizo Kato[3], *[1]Graduate School of Human and Environmental Studies, Kyoto University, Japan; [2]Condensed Molecular Materials Laboratory, RIKEN, Present address: Hokkaido University, Japan; [3]Condensed Molecular Materials Laboratory, RIKEN, Japan*

BC05 Wilson ratio of a Tomonaga-Luttinger liquid in a spin-1/2 Heisenberg ladder
18:35 Kostas Ninios[1], Tao Hong[2], Chisa Hotta[3], Yasu Takano[1]*, Manabe Takuya[3], S N Herringer[4], M M Turnbull[5], C P Landee[5] and Ho Bun Chan[6], *[1]Physics, University of Florida, USA; [2]Neutron Scattering Science Division, Oak Ridge National Laboratory, USA; [3]Physics, Kyoto Sangyo University, Japan; [4]Physics, Carlson School of Chemistry and Department of Physics, USA; [5]Carlson School of Chemistry and Department of Physics, Clark University, USA; [6]Physics, The Hong Kong University of Science and Technology, China*

BD: Exchange bias

July 9 (Mon), 17:20~18:50, Room 109~10 (1F)

Chairperson: G. Chern (National Chung-Cheng University, Taiwan)

BD01 Exchange bias; where are the pinned uncompensated spins
17:20 Ivan K Schuller[1]*, M. Erekhinsky[2], R. Morales[3], I. V. Roshchin[4], M. Kovylina[5], A. Labarta[5], X. Batlle[5], M. Fitzsimmons[6], S. Bar-ad[7] and S. K. Sinha[8], *[1]Physics, University of California, San Diego, USA; [2]Physics and Center for Advanced Nanoscience, University of California San Diego, USA; [3]University of the Basque Country and IKERBASQUE Basque Foundation for Science, Spain; [4]Texas A & M University, USA; [5]University of Barcelona, Spain; [6]Los Alamos National Labs, USA; [7]Tel Aviv University, Israel; [8]University of California, San Diego, USA*

BD02 Atomic diffusion in (Pt/Co)3/IrMn multilayers
17:50 Florent Letellier[1], Amjaad Zarefy[1], Jean-marie Le Breton[1]*, Luc Lechevallier[1], Rodrigue Larde[1], Didier Blavette[1], Vincent Baltz[2], Bernard Rodmacq[2] and Bernard Dieny[2], *[1]Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France; [2]SPINTEC, URA 2512 CNRS/CEA, CEA Grenoble, France*

BD03 Magnetic properties of ferromagnetic-antiferromagnetic bi-layers with different spin configuration
18:05 Wondong Kim[1]*, Chanyong Hwang[1], Z. Q. Qiu[2] and J. Y. Kim[3], *[1]Korea Research Institute of Standards and Science, Korea; [2]Physics Department, University of California at Berkeley, USA; [3]Pohang Accelerator Laboratory, Korea*

BD04 Tuning exchange bias in Ni/FeF_2 heterostructures using antidot arrays
18:20 Miroslavna Kovylina[1], Rafael Morales[2], M. Erekhinsky[3], Javier E. Villegas[4], Ivan K. Schuller[3], Amilcar Labarta[1] and Xavier Batlle[1]*, *[1]Departament Fisica Fonamental and Institut de Nanociencia i Nanotecnologia, Universitat de Barcelona, Barcelona, Catalonia, Spain; [2]University of the Basque Country & IKERBASQUE, Basque Foundation for Science, Bilbao, Spain; [3]Physics Department, University of California San Diego, La Jolla CA, USA; [4]Unite Mixte de Physique CNRS/Thales, Universite Paris Sud, Orsay, France*

BD05 Correlation between training effect and hysteretic behavior of angular dependence of exchange biasing in polycrystalline ferromagnet/antiferromagnet bilayers
18:35 Zhong Shi[1], Shiming Zhou[1]*, Tie Ren Gao[2] and Xue Peng Qiu[3], *[1]Department of Physics, Tongji University, China; [2]Department of Physics, Fudan Univerisity, China; [3]Department of Physics, Fudan University, China*

BE: Magnetic semiconductor

July 9 (Mon), 17:20~18:50, Room 201 (2F)

Chairperson: S. M.Yusuf (Bhabha Atomic Research Centre, India)

BE01 Interlayer exchange coupling in ferromagnetic semiconductor GaMnAs-based multilayers
17:20 Sanghoon Lee*, *Korea University, Korea*

BE02 Experimental probing of the magnetic order in ultrathin (Ga,Mn)As
17:50 M. Sawicki[1], D. Chiba[2], O. Proselkov[3], A. Korbecka[4], Y. Nishitani[5], F. Matsukura[6], J. A. Majewski[4], J. Sadowski[7], T. Dietl[8] and H. Ohno[6], *[1]Institute of Physics, Warsaw, Poland,and RIEC,Tohoku University, Sendai, Japan, Poland; [2]Institute for Chemical Research, Kyoto University, Uji, Kyoto, Japan; [3]Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; [4]Institute of Theoretical Physics, University of Warsaw, Poland; [5]Laboratory for Nanoelectronics and Spintronics, RIEC, Tohoku University, Sendai, Japan; [6]Laboratory for Nanoelectronics and Spintronics, and CSIS, Tohoku University, Sendai, Japan; [7]Institute of Physics, Warsaw, Poland, and MAX-Lab, Lund University, Lund, Sweden; [8]Institute of Physics, Warsaw, and Institute of Theoretical Physics, University of Warsaw, Poland*

BE03 Origin of ferromagnetism in $Ga_{1-x}Mn_xN$
18:05 Thibaut Devillers[1]*, Maciej Sawicki[2], Wiktor Stefanowicz[2], Sylwia Dobkowska[2], Bogdan Faina[1], Andrea Navarro-quezada[1], Tian Li[1], Andreas Grois[1], Mauro Rovezzi[3], Tomasz Dietl[2] and Alberta Bonanni[1], *[1]Institute for Semiconductor and Solid State Phys., Johannes Kepler University, Austria; [2]Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; [3]European Synchrotron Radiation Facility, Grenoble, France*

BE04 The effects of non-magnetic dopant on semiconductor materials
Withdrawn Caihong Zhang and Dickon H.l. Ng, *Physics Department, The Chinese University of HongKong, China*

BE05 I-Mn-V room temperature antiferromagnetic semiconductors
18:20 Xavier Marti[1]*, Peter Wadley[2], Helena Reichlova[2], Premysl Beran[3], Olya Stelmakhovych[4], Ineke Wijnheijmer[5], Paul Koenraad[6], Frantisek Maca[2], Jan Masek[2,] Klara Uhlirova[1], Vit Novak[2] and Tomas Jungwirth[2], *[1]Condensed Matter Physics, Charles Unviersity in Prague, Czech Republic; [2]Institute of Physics ASCR, Czech Republic; [3]Nuclear Physics Institute ASCR, Czech Republic; [4]Charles Unviersity in Prague, Czech Republic; [5]COBRA Inter-University Research Institute, Netherlands; [6]COBRA, Inter-University Research Institute, Netherlands*

BF: 3d transition metal oxides

July 9 (Mon), 17:20~18:50, Room 202 (2F)

Chairperson: Sang-Wook Cheong (Rutgers University, USA)

BF01 The verway phase of magnetite - a long-running mystery in magnetism
17:20 J Paul Attfield, *University of Edinburgh, United Kingdom*

BF02 Possible link of a structurally driven spin flip transition and the insulator-metal transition in the perovskite $La_{1-x}Ba_xCoO_3$
17:50 Despina Louca and Peng Tong, *Department of Physics, University of Virginia, USA*

BF03 Slow magnetic crossover in the frustrated magnet $Ca_3Co_2O_6$
18:05 Stefano Agrestini[1]*, Martin R Lees[2], Catherine L Fleck[2], Oleg A Petrenko[2], Laurent C Chapon[3], Claudio Mazzoli[4] and Alessandro Bombardi[5], *[1]Max-Planck Institut CPfS, Dresden, Germany; [2]Department of Physics, University of Warwick, Coventry, United Kingdom; [3]ILL, Grenoble, France; [4]Dipartimento di Fisica, Politecnico di Milano, Milano, Italy; [5]Diamond Light Source, Didcot, United Kingdom*

BF04 Incommensurate magnetic states in itinerant systems
18:20 Marat Timirgazin and Anatoly Arzhnikov, *Physical-Technical Institute of Ural Branch of Russian Academy of Sciences, Russia*

BF05 Canted spins of Mn_3O_4 investigated by $55Mn^{2+}$ and $55Mn^{3+}$ nuclear magnetic resonance in magnetic field
18:35 Changsoo Kim, Jeong Hyun Shim, Euna Jo, Byeongki Kang, Sangil Kwon and Soonchil Lee*, *Department of Physics, KAIST, 291 Daehak-ro, Yuseong-gu, Daejeon 305-701, Korea*

BG: Energy assisted magnetic recording

July 9 (Mon), 17:20~18:50, Room 203 (2F)

Chairperson: Katsuji Nakagawa (Nihon University, Japan)

BG01 L10 ordered FePt based granular films for thermally assisted magnetic recording
17:20 Y K Takahashi*, B Varaprasad, C Min, L Zhang and K Hono, *National Institute for Materials Science, Japan*

BG02 Nanogranular FePt films for thermally assisted recording
17:50 Tiffany Santos, O. Mosendz, J. Reiner, S. Pisana, G. Parker and D. Weller, *Hitachi GST, USA*

BG03 Single crystalline isolated grains of L10-ordered FeCuPt prepared by combination of rapid thermal annealing with rapid cooling and additional annealing
18:20 Tatsuya Ubana[1], Arata Tsukamoto[2]* and Akiyoshi Itoh[2], *[1]Graduate School of Science and Technology, Nihon university, Japan; [2]Collage of Science and Technology, Nihon university, Japan*

BG04 Oscillation characteristics of spin-torque oscillator calculated using integrated simulator with spt writer
18:35 Kazuetsu Yoshida[1], Souta Asaka[2], Takuya Hashimoto[2] and Yasushi Kanai[3], *[1]Information and Communications Engineering, Kogakuin University, Japan; [2]Graduate school of electrical engineering and electronics, Kogakuin University, Japan; [3]Information and Electronics Engineering, Niigata Institute of Technology, Japan*

BH: Interdisciplinary technology

July 9 (Mon), 17:20~18:50, Room 204 (2F)

Chairperson: Benjamin B. Yellen (Duke University, USA)

BH01 Magnetic nanotechnology for cancer treatment
17:20 Thanos Mitrelias[1], Valerii Orel[2], Marina Tselepi[3], Crispin Barnes[4], I Schepotin[2], A Romanov[2] and A Shevchenko[5], *[1]Cavendish Laboratory, University of Cambridge and Cavendish NanoTherapeutics Ltd, United Kingdom; 2National Cancer Institute, Kiev, Ukraine; 3Cavendish Laboratory, University of Cambridge and Cavendish NanoTherapeutics, United Kingdom; 4Cavendish Laboratory, University of Cambridge, United Kingdom; 5Kurdyumov Institute for Metal Physics, Kiev, Ukraine*

BH02 The low magnetic field effect of sanals of primo vascular system
17:35 Sang-suk Lee[1], Kwang-sup Soh[2], Min-suk Rho[3], Yeong-min Yoo[4], Jong-gu Choi[5], Sung-ah Shim[1], Young-il No[1], Jun-yeong Shin[1] and Ran-hyang Kim[1], *[1]Oriental Biomedical Engineering, Sangji University, Korea; [2]Nano-Primo Research Center, Seoul National University, Korea; [3]Sangji University, Korea; [4]Biomedical Engineering, Yonsei University, Korea; [5]Eastern-Western Biomedical Engineering, Sangji University, Korea*

BH03 Magnetic targeting of mesenchymal stem cells in the spinal cord
17:50 Vaclav Vanecek[1], Jiri Ruzicka[1], Serhiy Forostiak[1], Michal Babic[2], Vit Herynek[3], Alexandr Dejneka[4], Vitalii Zablotskii[4]*, Sarka Kubinova[1], Pavla Jendelova[1] and Eva Sykova[1], *[1]Institute of Experimental Medicine, Czech Republic; [2]Institute of Macromolecular Chemistry, Czech Republic; [3]MR-Unit, Institute for Clinical and Experimental Medicine, Czech Republic; [4]Institute of Physics, Czech Republic*

BH04 Tilted bianchi type - I magnetised viscous fluid cosmological model
18:05 Subrata Kumar Sahu, *Mathematics, Lingayas University, India*

BH05 Growth of highly uniform graphene for spintronic applications
18:20 Shiro Entani, Yoshihiro Matsumoto, Manabu Ohtomo, Pavel V Avramov, Hiroshi Naramoto and Seiji Sakai, *Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

BH06 Depth-resolved XMCD spectroscopy on single-layer graphene / Ni structure
18:35 Yoshihiro Matsumoto[1]*, Shiro Entani[1], Manabu Ohtomo[1], Pavel V Avramov[1], Hiroshi Naramoto[1], Kenta Amemiya[2] and Seiji Sakai[1], *[1]Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [2]Institute of Materials Structure Science, High Energy Accelerator Research Organaization, Japan*

BI: STT MRAM and magnetic logic

July 9 (Mon), 17:20~18:50, Room 205 (2F)

Chairperson: J. Akerman (University of Gothenburg, Sweden)

BI01 Magnetoresistance and spin-transfer torque in magnetic tunnel junctions
17:20 Shinji Yuasa[1,2*], Kay Yakushiji[1], Akio Fukushima[1], Hitoshi Kubota[1], Takayuki Nozaki[1] and Koji Ando[1] *[1]Spintronics Research Center, National Institute of Advanced Industrial Science and technology (AIST), Japan; [2]Distinguished Lecturer of IEEE Magnetic Society, Japan*

BI02 MTJ based non volatile logic for ultimate power management
17:50 Tetsuo Endoh, Takashi Ohsawa, Takahiro Hanyu and Hideo Ohno, *Tohoku University, Japan*

BI03 Spin gating a transistor and spintronics with antiferromagnets
18:20 Tomas Jungwirth, *Institute of Physics ASCR, v.v.i., Prague and University of Nottingham, Czech Republic*

BJ: Ferrites, garnets and other materials

July 9 (Mon), 17:20~18:50, Room 206 (2F)

Chairperson: Hsing-I Hsiang (National Cheng Kung University, Taiwan)

BJ01 Co2y-nicuzn ferrite composites with high permeability
17:20 Hsing-i Hsiang* and Po-wen Cheng, *Resources Engineering, National Cheng Kung University, Taiwan*

BJ02 Investigation of Fe_2YZ (Y=Ni, Cu; Z=Sn, Ga): The Heusler compounds with tetragonal structure
17:35 Margarit Gjoka[1], Dimitris G Niarchos[1], Eamon Devlin[1] and George Hadjipanayis[2], *[1]Institute of Materials Science, NCSR DEMOKRITOS, Greece; [2]Physics and Astronomy, University of Delaware, USA*

BJ03 Crystallite growth kinetics and microwave properties of Fe-Ti substituted $(La,Sr)MnO_3$ prepared by mechanical alloying
*Withdrawn
Nastiti Elwindari, Hinu Pramuji and Azwar Manaf*, *Departement of Physics, Faculty of Natural Sciences Universitas Indonesia, Indonesia*

BJ04 Electromagnetic characteristics of Cu substituted Co_2Z-type ferrites $Ba_3Co_{2-x}Cu_xFe_{24}O_{41}$
17:50 Ji Yeon Song and Young Ho Han*, *Materials Engineering, Sungkyunkwan University, Korea*

BJ05 Electrical and magnetic properties of nickel and magnesium co-substituted lithium ferrites
18:05 Ramesh M.[1], Rao G.S.N.[2], Parvatheeswara Rao B.[1]* and Samatha K.[1], *[1]Physics Department, Andhra University, India; [2]Physics Department, Dr. V.S. Krishna College, Visakhapatnam, India*

BJ06 Resistivity and complex permeability dependence on isochronal recovery in polycrystalline yttrium iron garnet ($Y_3Fe_5O_{12}$)
18:20 Ismayadi Ismail[1], Mansor Hashim[1]* and Nor Hapishah Abdullah[2], *[1]Advanced Materials and Nanotechnology Laboratory, Universiti Putra Malaysia, Malaysia; [2]Physiscs Department, Faculty of Science, Universiti Putra Malaysia, Malaysia*

CA: Superconductivity II - cuprate and other superconductors

July 10 (Tue), 11:00~12:30, Room101~3 (1F)

Chairperson: Michael Sutherland (Univeristy of Cambridge, UK)

CA01 Spin and charge excitations in cuprates and iron pnictides revealed by simulated resonant inelastic x-ray scattering
11:00 Takami Tohyama[1], Eiji Kaneshita[2] and Kenji Tsutsui[3], *[1]Yukawa Institute for Theoretical Physics, Kyoto University, Japan; [2]Sendai National College of Technology, Japan; [3]Synchrotron Radiation Research Center, Japan Atomic Energy Agency, Japan*

CA02 Discovery of fermi surface near anti-node in pseudogap phase of the under-doped Bi-2212
11:30 Chung Koo Kim[1], Jhinhwan Lee[2], Kazuhiro Fujita[3], Hiroshi Eisaki[4], Shinichi Uchida[5], J. C. Seamus Davis[6] and Jinho Lee[7]*, *[1]BNL/Cornell, USA; [2]KAIST, Korea; [3]Cornell, USA; [4]AIST, Japan; [5]Tokyo U., Japan; [6]Cornell/BNL, USA; [7]BNL/SNU, Korea*

CA03 Feedback effect on high-energy magnetic fluctuations in the model high-temperature superconductor $HgBa_2CuO_{4+d}$
12:00 Yuan Li[1]*, Mathieu Le Tacon[1], Mohammed Bakr[1], Damien Terrade[1], Dirk Manske[1], Rudi Hackl[2], Lina Ji[3], Mun K. Chan[3], Neven Barisic[3], Xudong Zhao[3], Martin Greven[3] and Bernhard Keimer[1], *[1]Max Planck Institute for Solid State Research, Germany; [2]Walther Meissner Institute, Bavarian Academy of Sciences, Germany; [3]University of Minnesota, USA*

CB: Magnetic nanoparticles I

July 10 (Tue), 11:00~12:30, Room 106~8 (1F)

Chairperson: Young K. Kim (Korea University, Korea)

CB01 Ferromagnetism of Au nanoparticle assemblies: Role of chemical and structural parameters in magnetic properties
11:00 Tae Hee Kim[1]*, Eun Ju Her[1], Yu Jeong Bae[1], Seung Hyo Ko[1], Seung Ho Moon[2], Jung-tak Jang[2], Jinwoo Cheon[2] and Eisuke Ito[3], *[1]Physics Department, Ewha Womans University, Korea; [2]Chemistry Department, Yonsei University, Korea; [3]3Flucto-Order Functions Research Team, RIKEN Advanced Science Institute, Japan*

CB02 Air-stable Fe@Au nanoparticles synthesized by the microemulsion's method
11:30 J. Rivas[1]*, E. Iglesias-silva[2], J. M. Vilas-vilela[3], L. M. Leon[3] and M. A. Lopez-quintela[4], *[1]INL-International Iberian Nanotechnology Laboratory; University of Santiago de Compostela, Spain; [2]Universtiy of Santiago de Compostela; University of the Basque Country, Spain; [3]University of the Basque Country, Spain; [4]University of Santiago de Compostela, Spain*

CB03 Numerical study of the exchange bias effects in assemblies of core/shell nanoparticles
11:45 Kalliopi Trohidou*, Marianna Vasilakaki and George Margaris, *Institute of Materials Science, National Center for Scientific Research 'Demokritos', Greece*

CB04 Exploring the effect of Co doping in the magnetic and magneto-optical properties of fine maghemite nanoparticles
12:00 Elvira Fantechi[1], Giulio Campo[1], Daniela Carta[2], Anna Corrias[2], Cesar De Julian Fernandez[3]*, Claudia Innocenti[1], Francesco Pineider[4], Francesco Rugi[1] and Claudio Sangregorio[3], *[1]INSTM and University of Florence, Italy; [2]INSTM and Department of Chemical Sciences, Universita di Cagliari, Italy; [3]CNR - ISTM Milano @ INSTM Udr Florence, Italy; [4]CNR - ISTM Padova @ INSTM Udr Florence, Italy*

CB05 Novel technique for self assembly of magnetic nanoparticles by cluster beam deposition
12:15 Ozan Akdogan[1]*, Wanfeng Li[2], George Hadjipanayis[2] and David Sellmyer[3], *[1]University of Delaware, USA; [2]Physics and Astronomy, University of Delaware, USA; [3]Physics and Astronomy, University of Nebraska, USA*

CC: Spin liquid / Spin ice

July 10 (Tue), 11:00~12:30, Room 104~5 (1F)

Chairperson: Jeroen van den Brink (IFW Dresden, Germany)

CC01 Magnetricity and magnetic monopoles in spin ice
11:00 Steven Bramwell, *London Centre for Nanotechnology and DepartMent of Physics and Astronomy, University College London, United Kingdom*

CC02 Recent developments in quantum spin liquid candidates
11:30 Luis Balicas*, *Condensed Matter Sciences, NHMFL, USA*

CC03 Static and dynamic properties of a strong-leg spin ladder
11:45 David Jan Schmidiger[1], Pierre Bouillot[2], Sebastian Muhlbauer[1], Severian Gvasaliya[1], Georg Ehlers[3], Corinna Kollath[4], Thierry Giamarchi[2] and Andrey Zheludev[1]*, *[1]Neutron Scattering and Magnetism, Laboratory for Solid State Physics, ETH Zurich, Switzerland; [2]DPMC-MaNEP, University of Geneva, CH-1211, Geneva, Switzerland; [3]Neutron Scattering Science Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831-6475, USA; [4]DPT-MaNEP, University of Geneva, CH-1211, Geneva, Switzerland*

CC04 Nonstationary processes in the spin-ice materials $Dy_2Ti_2O_7$ and $Ho_2Ti_2O_7$ investigated by ultrasound
12:00 S. Zherlitsyn[1]*, S. Erfanifam[1], J. Wosnitza[1], R. Moessner[2], O. A. Petrenko[3], G. Balakrishnan[3] and A. A. Zvyagin[4], *[1]Hochfeld-Magnetlabor Dresden, Helmholtz-Zentrum Dresden-Rossendorf, Germany; [2]Max-Planck Institut fuer Physik komplexer Systeme, Germany; [3]Department of Physics, University of Warwick, United Kingdom; [4]B. I. Verkin Institute for Low Temperature Physics and Engineering, Ukraine*

CC05 Study of low-temperature magnetism in a pr-based pyrochlore magnet
12:15 Kenta Kimura[1]*, Satoru Nakatsuji[1], Agung Nugroho[2], Yoshitomo Karaki[3], Kazuyuki Matsuhira[4], Yasuyuki Shimura[1] and Toshiro Sakakibara[1], *[1]ISSP, Univ. of Tokyo, Japan; [2]Bandung Inst. Tech, Indonesia; [3]Ryukyu Univ., Japan; [4]Kyusyu Inst. Tech., Japan*

CD: Heavy fermions I

July 10 (Tue), 11:00~12:30, Room 109~10 (1F)

Chairperson: Tuson Park (Sungkyunkwan University, Korea)

CD01 A materials-based global phase diagram for heavy-fermion quantum criticality
11:00 S. Paschen[1]*, J. Custers[1], J. Larrea J.[1], K. - A. Lorenzer[1], M. Mueller[1], A. Prokofiev[1], A. Sidorenko[1], H. Winkler[1], A. M. Strydom[2], Y. Shimura[3], T. Sakakibara[3], R. Yu4 and Q. Si[4], *[1]Institute of Solid State Physics, Vienna University of Technology, Austria; [2]Physics Department, University of Johannesburg, South Africa; [3]Institute for Solid State Physics, University of Tokyo, Japan; [4]Department of Physics and Astronomy, Rice University, USA*

CD02 Anomalous metals with strong valence / orbital fluctuations
11:30 Satoru Nakatsuji, Yosuke Matsumoto, Kentaro Kuga, Eoin T. C. O' Farrell and Akito Sakai, *Institute for Solid State Physics, University of Tokyo, Japan*

CD03 Ce-based iron-pnictides: Intermediate valence and heavy-fermion behavior versus magnetism and superconductivity
12:00 Matthias Holder[1], Denis V. Vyalikh[1], Steffen Danzenbacher[1], Anton Jesche[2], Cornelius Krellner[2], Christoph Geibel[2], Pierre Lombardo[3], Roland Hayn[3], Rolf Follath[4], Serguei L. Molodtsov[5] and Clemens Laubschat[1]*, *[1]Institut fur Festkorperphysik, Technische Universitat Dresden, D-01062 Dresden, Germany; [2]Max-Planck-Institut fur Chemische Physik fester Stoffe, D-01187 Dresden, Germany; [3]Institut Materiaux, Microelectronique et Nanosciences de Provence, FR-13397 Marsaille, France; [4]Helmholtz-Zentrum Berlin, Elektronenspeicherring BESSY II, D-12489 Berlin, Germany; [5]European XFEL GmbH, D-22671 Hamburg, Germany*

CD04 Observation of the quantum critical point in $CeRhSi_3$ with the muon spin rotation technique
12:15 Nikola Egetenmeyer[1]*, Jorge L. Gavilano[1], Alexander Maisuradze[2], Alexander Maisuradze[3], Simon Gerber[1], Michel Kenzelmann[4], Gabriel Seyfarth[5], Daniel Andreica[6], Alexandre Desilets-benoit[7], Andrea D. Bianchi[7], Christopher Baines[2], Rustem Khasanov[2] and Douglas E. Maclaughlin[8], *[1]Laboratory for Neutron Scattering, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland; [2]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland; [3]Physik-Institut, Universitat Zurich, 8057 Zurich, Switzerland; [4]Laboratory for Developments and Methods, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland; [5]Departement de physique de la matiere condensee, Universite de Geneve, 1211 Geneva, Switzerland; [6]Faculty of Physics, Babes-Bolyai University, 400084 Cluj-Napoca, Romania; [7]Departement de Physique, Univerisite de Montreal, Montreal H3C 3J7, Canada; [8]Department of Physics and Astronomy, University of California, Riverside, USA*

CE: Spin transfer oscillators

July 10 (Tue), 11:00~12:30, Room 201 (2F)

Chairperson: J. Grollier (CNRS, France)

CE01 Self-modulation in perpendicular anisotropy Co/Ni based spin-torque oscillators
11:00 Johan Akerman, *Physics Department, University of Gothenburg, Sweden*

CE02 Magnetization tilt angles in [Pd/Co]/Cu/[Co/Pd]-NiFe pseudo spin valves
11:15 Anh T. N Nguyen[1], Sunjea Chung[1], S. M. Mohseni[1], R. K. Dumas[2] and Johan Akerman[2]*, *[1]Materials Physics, KTH, Royal Institute of Technology, Sweden; [2]Department of Physics, University of Gothenburg, 412 96 Gothenburg, Sweden*

CE03 Temperature dependence of microwave voltage emission associated to spin-transfer induced vortex oscillations in magnetic tunnel junctions
11:30 Paolo Bortolotti[1]*, A. Dussaux[1], J. Grollier[1], V. Cros1, A. Fukushima[2], H. Kubota[2], K. Yakushiji[2], S. Yuasa[2], K. Ando[2] and A. Fert[1], *[1]Unite Mixte de Physique CNRS/Thales, France; [2]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

CE04 Zero external-field microwave oscillations in MgO magnetic tunnel junctions
11:45 Jae Hyun Park[1], Seung-young Park[2], Byoung-chul Min[1]*, Jung-hwan Moon[3], Kyung-jin Lee[3], Young-hun Jo[2] and Kyung-ho Shin[1], *[1]Korea Institute of Science and Technology, Korea; [2]Korea Basic Science Institute, Korea; [3]Korea University, Korea*

CE05 NCMR based spin-torque microwave generator and detector with high signal purity
12:00 Yuuki Kozono[1]*, Yoshihito Okutomi[1], Kohsaku Miyake[1], Susumu Hashimoto[2], Hitoshi Iwasaki[2] and Masashi Sahashi[1], *[1]Department of Electronic Engineering, Tohoku University, Japan; [2]Corporate Research and Development Center, Toshiba Corporation, Japan*

CE06 Conditions for zero field spin transfer induced vortex oscillations with a perpendicular spin polarizer
12:15 E. Grimaldi[1]*, A. Dussaux[1], B. Salles[2], J. Grollier[1], A. Fukushima[2], H. Kubota[2], K. Yakushiji[2], S. Yuasa[2], V. Cros[1] and A. Fert[1], *[1]Unite Mixte de Physique CNRS/Thales, 1 Av Fresnel, Campus de l'Ecole Polytechnique, 91767 Palaiseau, France; [2]National Institute of Advanced Industrial Science and Technology (AIST), 1-1-1 Umezono, Tsukuba, Japan*

CF: Actinides and lanthanides

July 10 (Tue), 11:00~12:30, Room 202 (2F)

Chairperson: Vitalij Pecharsky (Iowa State University, USA)

CF01 Spin-orbital short-range order on a honeycomb based lattice
11:00 C. Broholm[1]*, S. Nakatsuji[2], H. Sawa[3], M. Hagiwara[4] and F. Bridges[5], *[1]Institute for Quantum Matter and Department of Physics and Astronomy, Johns Hopkins University, USA; [2]Institute for Solid State Physics, University of Tokyo, Japan; [3]Department of Applied Physics, Graduate School of Engineering Nagoya University, Japan; [4]KYOKUGEN, Osaka University, Japan; [5]Physics Department, University of California, Santa Cruz, USA*

CF02 Quadrupolar waves in uranium dioxide
11:30 Paolo Santini, *University of Parma, Italy*

CF03 Magnon gap formation and charge density wave effect on thermoelectric properties in $SmNiC_2$ compound
12:00 Jin-hee Kim[1], Gyeong Im Min[2], Jong-soo Rhyee[1] and Yong Seung Kwon[2]*, *[1]Applied Physics, KyungHee University, Korea; [2]Physics, Sungkyunkwan University, Korea*

CF04 Effect of R ion size variance on spin and orbital order in RVO_3 (R=rare earth and Y)
12:15 S. Miyasaka[1]*, R. Fukuta[1], K. Hemmi[1], N. Sasaki[1], S. Tajima[1], D. Kawana[2], K. Ikeuchi[2], Y. Yamasaki[2], A. Nakao[2], H. Nakao[2], R. Kumai[2], Y. Murakami[2] and K. Iwasa[3], *[1]Department of Physics, Osaka University, Japan; [2]KEK-PF/CMRC, Japan; [3]Department of Physics, Tohoku University, Japan*

CG: Semiconductor spintronics II - group III~V materials

July 10 (Tue), 11:00~12:30, Room 203 (2F)

Chairperson: R. Jansen (National Institute of Advanced Industrial Science and Technology (AIST), Japan)

CG01 Spin Hall effects in n-GaAs near the metal-insulator transition
11:00 Paul A Crowell, *School of Physics and Astronomy, University of Minnesota, USA*

CG02 The effect of an inhomogeneous interface on the transport properties across Fe/GaAs(001) films
11:30 Luke Fleet[1], K. Yoshida[2], H. Kobayashi[3], Y. Kaneko[3], S. Matsuzaka[3], Y. Ohno[3], H. Ohno[3], S. Honda[4], J. Inoue[2] and A. Horihata[1]*, *[1]The University of York, United Kingdom; [2]Nagoya University, Japan; [3]Tohoku University, Japan; [4]University of Tsukuba, Japan*

CG03 Spin accumulation and decoherence mechanisms at ferromagnetic/tunnel barrier/semiconductor interfaces
11:45 Julian Peiro[1], Jean-christophe Lebreton[1], Cyrile Deranlot[1], Aristide Lemaitre[2], Abhinav Jain[3], Celine Vergnaud[3], Matthieu Jamet[3], Henri Jaffres[1] and Jean-marie George[1]*, *[1]Unite Mixte de Physique CNRS/Thales, Campus Polytechnique, 1 av. Augustin Fresnel, 91767 Palaiseau, France; [2]CNRS-Laboratoire de Photonique et Nanostructures, route de Nozay, 91460 Marcoussis, France; [3]INAC/SP2M, CEA-Universite Joseph Fourier, 17 rue des Martyrs, 38054 Grenoble, France*

CG04 Electrical spin accumulation and detection in Fe_3O_4/MgO/GaAs systems
12:00 Shwetha G. Bhat*, Cijy Mathai and Anil P. S. Kumar, *Department of Physics, Indian Institute of Science, Bangalore, India*

CG05 Spin relaxation in defect-free InGaN/GaN quantum wells
12:15 Animesh Banerjee[1]*, Fatih Dogan[2], Aurelien Manchon[2] and Pallab Bhattacharya[1], *[1]Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, MI 48109-2122, USA; [2]Division of Physical Science and Engineering, King Abdullah University of Science and Technology, Thuwal 23955, Saudi Arabia*

CH: Heusler alloys etc

July 10 (Tue), 11:00~12:30, Room 204 (2F)

Chairperson: Joo Yull Rhee (Sungkyunkwan University, Korea)

CH01 Magnetic, magnetotransport and magnetocaloric properties of quaternary Ni-Mn-In-Z Heusler alloys
11:00 Alexander Kazakov[1], Valerii Prudnikov[1], Igor Rodionov[1], Denis Mettus[1], Nikolai Perov[1], Alexander Granovsky[1]*, Arcady Zhukov[2], Julian Gonzalez[2], Igor Dubenko[3], Arjun Kumar Pathak[3], Tapas Samanta[3], Shane Stadler[4], Philip Adam[4], Joseph Prestigiacomo[4] and Naushad Ali[3], *[1]Lomonosov Moscow State University, Russia; [2]Universidad del Pais Vasco, Spain; [3]Southern Illinois University, Carbondale, USA; [4]Louisiana State University, USA*

CH02 Composition dependence of magnetic properties in tetragonal Heusler-like Mn-Ga alloy films with large perpendicular magnetic anisotropy
11:30 Shigemi Mizukami[1]*, Takahide Kubota[1], Qinli Ma[1], Zhang Xianmin[1], Hiroshi Naganuma[2], Mikihiko Oogane[2], Akimasa Sakuma[2], Yasuo Ando[2] and Terunobu Miyazaki[1], *[1]WPI-Advanced Institute for Materials Research, Tohoku University, Japan; [2]Department of Applied Physics, Graduate School of Engineering, Tohoku University, Japan*

CH03 Optical spectroscopy of half-metallic and thermoelectric Heusler compounds
11:45 Jaroslav Hamrle[1]*, Dominik Legut[1], Kamil Postava[1], Jaromir Pistora[1], Enrique Vilanova[2], Mirko Emmel[2], Gerhard Jakob[2], Siham Ouardi[3], Gerhard H. Fecher[3] and Claudia Felser[3], *[1]Department of Physics and Nanotechnology Centre, VSB - Technical University of Ostrava, Czech Republic; [2]Institute of Physics, Mainz University, Germany; [3]Institute of Inorganic Chemistry and Analytical Chemistry, Mainz University, Germany*

CH04 Verification of band structure calculations for the Heusler compound Co_2MnGa
12:00 Michaela Kolbe[1], Stanislav Chadov[2], Elena Arbelo Jorge[1], Claudia Felser[2], Hans-joachim Elmers[1], Gerd Schonhense[1], Mathias Klaui[1] and Martin Jourdan[1]*, *[1]Institute of Physics, University Mainz, Germany; [2]CA, Max-Planck-Institut fur Chemische Physik fester Stoffe, Germany*

CH05 Field-driven domain-wall ratchet shift register
12:15 Jeroen Franken*, Henk Swagten and Bert Koopmans, *Department of Applied Physics, Eindhoven University of Technology, Netherlands*

CI: Multiferroics II - scattering

July 10 (Tue), 11:00~12:30, Room 205 (2F)

Chairperson: Jae-hoon Park (POSTECH, Korea)

CI01 Solitonic lattice and Yukawa forces in the rare earth orthoferrite $TbFeO_3$
11:00 Sergey Artyukhin[1], Maxim Mostovoy[1] and Dimitrios Argyriou[2]*, *[1]Zernike Institute for Advanced Materials, University of Groningen, Netherlands; [2]European Spallation Source ESS AB, Sweden*

CI02 Ferroelectricity from magnetic helicity in ferroaxial crystals
11:30 Laurent C Chapon, *Institut Laue-Langevin, France*

CI03 Chemical-doping control of magnetoelectric multiferroics
12:00 Jae-ho Chung[1]*, Young-sang Song[1], Hak-bong Lee[1], Hun Chang[1] and Kee Hoon Kim[2], *[1]Dept. of Physics, Korea University, Korea; [2]Dept. of Physics & Astronomy, Seoul National University, Korea*

CI04 Magnetic x-ray scattering studies on multiferroic $SmFe_3(BO_3)_4$
12:15 Dinesh Kumar Shukla[1]*, Joerg Strempfer[1], Arvid Skaugen[1], Sonia Francoual[1], Martin Von Zimmermann[1], Leonard N Bezmaternykh[2], Irina A Gudim[2] and Vladislav L Temerov[2], *[1]Deutsches Elektronen-Synchrotron DESY, 22607 Hamburg, Germany; [2]L.V. Kirensky Institute of Physics, Krasnoyarsk 660036, Russia*

CJ: Magneto-dielectric materials or meta-materials

July 10 (Tue), 11:00~12:30, Room 206 (2F)

Chairperson: A. Zhukov (Basque Country University, Spain)

CJ01 Spin excitations and transformation of domain structure in nanocrystalline $CoFeB-SiO_2$ films with growth induced anisotropy
11:00 Alexander Grishin*, *Department of Condensed Matter Physics, KTH Royal Institute of Technology, Sweden*

CJ02 GMI effect of amorphous microwires with enhanced magnetic softness
11:30 Arcady Zhukov[1], Mihail Ipatov[2], Ahmed Talaat[2] and Valentina Zhukova[2], *[1]Dpto. Fisica de Materiales, Fac. Quimicas, Basque Country University, UPV/EHU and Ikerbasque, Basque Foundation for Science, Spain; [2]Dpto. Fisica de Materiales, Fac. Quimicas, Basque Country University, UPV/EHU, Spain*

CJ03 Micro-fabricated silicon spiral spring based electromagnetic energy harvester
11:45 Jong C. Park, Dong H. Bang and Jae Y. Park*, *Electronic Engineering, Kwangwoon University, Korea*

CJ04 Magneto-optical study of magnetization reversal in sub-micrometric glass covered wires
12:00 Alexander Chizhik[1]*, Arcady Zhukov[2] and Julian Gonzalez[1], *[1]Universidad del Pais Vasco UPV/EHU, Spain; [2]Universidad del Pais Vasco UPV/EHU, IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*

CJ05 The magnetic transition and large magnetoresistance effect in perovskite $Nd_{1-x}Sr_xMnO_3$ system
12:15 Khai Van Vu[1]*, Thang Viet Do[2], Sinh Huy Nguyen[3] and Anh Thi Kim Do[3], *[1]Construction Mechanical Faculty, National University of Civil Engineering, Viet Nam; [2]Faculty of Science, Haiphong University, Viet Nam; [3]Faculty of Physics, University of Science, Vietnam National University, Hanoi, Viet Nam*

DA: Superconductivity III - Fe-based superconductors

July 10 (Tue), 15:30~17:00, Room101~3 (1F)

Chairperson: Changyoung Kim (Yonsei University, Korea)

DA01 Superconducting symmetry of Fe-based systems studied by impurity effects and neutron inelastic measurements
15:30 Masatoshi Sato[1]*, Yoshiaki Kobayashi[2], Takayuki Kawamata[3], Yukio Yasui[2], Kazunori Suzuki[2], Masayuki Itoh[2], Ryoichi Kajimoto[1], Kazuhiko Ikeuchi[1], Masatoshi Arai[4] and Philippe Bourges[5], *[1]Research Center for Neutron Science and Technology, Comprehensive Research Organization for Science and Society, Japan; [2]Department of Physics, Nagoya University, Japan; [3]Department of Applied Physics, Tohoku University, Japan; [4]Materials and Life Sccience Division, J-PARC Center, JAEA, Japan; [5]Laboratoire Leon Brillouin, CEA/Saclay, France*

DA02 Carrier doping versus impurity effects in transition metal-substituted iron-based superconductors revealed by ARPES
16:00 Atsushi Fujimori, *Department of Physics, University of Tokyo, Japan*

DA03 Specific heat measurements on fepn in fields up to Hc2 - a probe of nodal structure
16:30 Greg Stewart*, *Physics, Univ. Florida, USA*

DA04 NMR study on high temperature Fe-pnictide superconductor Ln-Fe-As-O with Tc=50 K
16:45 Hidekazu Mukuda[1]*, Satoshi Furukawa[1], Mitsuharu Yashima[1], Yoshio Kitaoka[1], Parasharam M Shirage[2], Hiroshi Eisaki[2] and Akira Iyo[2], *[1]Osaka University, Japan; [2]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

DB: Kondo systems I

July 10 (Tue), 15:30~17:00, Room 106~8 (1F)

Chairperson: P. Schlottmann (Florida State University, USA)

DB01 Ultrahigh-resolution and time-resolved laser photoemission study on kondo materials
15:30 Shik SHIN, *University of Tokyo, Japan*

DB02 Magnetic moment screening in the correlated Kondo lattice model
16:00 Peter Thalmeier[1], Mohammad Siahatgar[1], Burkhard Schmidt[1] and Gertrud Zwicknagl[2], *[1]Max Planck Institute for Chemical Physics of Solids, Germany; [2]Technical University Braunschweig, Germany*

DB03 Influence of magnetic anisotropy on the underscreened Kondo effect in the presence of ferromagnetism
16:15 Maciej Misiorny[1,2*], Ireneusz Weymann2 and Jozef Barnas[2,3] *[1]Peter Grünberg Institut (PGI-2), Forschungszentrum Jülich & JARA Jülich Aachen Research Alliance, 52425 Jülich, Germany; [2]Faculty of Physics, Adam Mickiewicz University, 61-614 Pozna, Poland; [3]Institute of Molecular Physics, Polish Academy of Sciences, 60–179 Pozna, Poland*

DB04 Quantum criticality out of equilibrium in the pseudogap Kondo model
Withdrawn Chung-hou Chung[1] and Yi-jie Zhang[2], *[1]Electrophysics Dept., National Chiao-Tung University, HsinChu, Taiwan; [2]Electrophysics Dept., National Chiao-Tung University, HsinChi, Taiwan*

DB05 A spin-selective kondo-insulator - cooperation between ferromagnetism and kondo-effect
16:30 Robert Peters and Norio Kawakami, *Kyoto University, Japan*

DC: Spin-orbit / Spin-lattice / Spin-oribital physics

July 10 (Tue), 15:30~17:00, Room 104~5 (1F)

Chairperson: Jae-hoon Park (POSTECH, Korea)

DC01 Spin-orbit entangled ground states and excitations in iridium oxides
15:30 Giniyat Khaliullin, *Max Planck Institute for Solid State Research, Germany*

DC02 **Elementary magnetic excitations of iridates and cuprates probed by resonant inelastic X-ray scattering**
16:00 Jeroen Van Den Brink*, *IFW Dresden, Germany*

DC03 **Resonant Inelastic X-ray Scattering study of Na_2IrO_3**
16:30 Hlynur Gretarsson[1], Heungsik Kim[2], Xuerong Liu[3], John Hill[3], Yogesh Singh[4], P Gegenwart[4], Jungho Kim[5], Diego Casa[5], Thomas Gog[5], Mary Upton[5], Jaejun Yu[2] and Young-june Kim[1]*, *[1]Department of Physics, University of Toronto, Canada; [2]Department of Physics, Seoul National University, Korea; [3]Brookhaven National Laboratory, USA; [4]Georg-August-Universitat Gottingen, Germany; [5]Advanced Photon Source, Argonne National Laboratory, USA*

DC04 **Magnetization plateaus in generalized Shastry-Sutherland models**
16:45 Pinaki Sengupta[1]*, Keola Wierschem[1], Takafumi Suzuki[2] and Naoki Kawashima[3], *[1]Nanyang Technological University, Singapore; [2]Hyogo University, Japan; [3]University of Tokyo, Japan*

DD: Diluted magnetic semiconductors and others

July 10 (Tue), 15:30~17:00, Room 109~10 (1F)

Chairperson: Chang Uk Jung (Hankuk University of Foreign Studies, Korea)

DD01 **Modulated spinodal decomposition and magnetotransport in (Ge,Mn) films grown on GaAs(001)**
15:30 Ing-song Yu[1], Thibaut Devillers[1], Andre Barski[1], Pascale Bayle-guillemaud[1], Cyrille Beigne[1], Johan Rothman[2], Vincent Baltz[1], Joel Cibert[3] and Matthieu Jamet[1]*, *[1]INAC, Commissariat a l'Energie Atomique et aux Energies Alternatives, France; [2]LETI, Commissariat a l'Energie Atomique et aux Energies Alternatives, France; [3]Institute NEEL, CNRS, France*

DD02 **Homogenous and heterogeneous magnetism in (Zn,Co)O**
15:45 Maciej Sawicki[1], Ela Guziewicz[1], Malgorzata I Lukasiewicz[1], Oleg Proselkov[1], Iwona Kowalik[1], W. Lisowski[2], Piotr Dluzewski[1], Wojciech Paszkowicz[1], Rafal Jakiela[1], Bartlomiej S Witkowski[1], Lukasz Wachnicki[1], F.j. Luque[3], D. Arvanitis[4], W. Sobczak[2], M. Krawczyk[2], A. Jablonski[2], Wiktor Stefanowicz[1], Dariusz Sztenkiel[1], Marek Godlewski[1] and Tomasz Dietl[1], *[1]Institute of Physics, Polish Academy of Sciences, Poland; [2]Institute of Physical Chemistry, Polish Academy of Sciences, Poland; [3]Depto. de Fisica de la Materia Condensada, Universidad Autonoma de Madrid, Spain; [4]Department of Physics and Astronomy, Uppsala University, Sweden*

DD03 **Magnetic and optical studies of hydrogenated Cu-doped ZnO film**
16:00 Tong Li, Wen Xiao, Tun Seng Herng, Nina Bao and Jun Ding*, *National University of Singapore, Singapore*

DD04 **Formation and investigation of structural and magnetic properties of Ni-Mn-In Heusler alloy thin films**
16:15 Alexey Grunin*, Alexander Goikhman and Valeria Rodionova, *Immanuel Kant Baltic Federal University, Russia*

DD05 **Magnetic excitations in rare earth based nanosystems**
Withdrawn Karine Dumesnil[1], Catherine Dufour[1], Sylvain Petit[2] and Alexandre Bataille[2], *[1]Institut Jean Lamour - Lorraine University, France; [2]Laboratoire Leon Brillouin - CEA, France*

DD06 **Exchange coupled L10 FePt (hard)/ soft (A1 FePt or Co) nanocomposites**
16:30 Thanassis Speliotis[1], George Giannopoulos[1], Dimitris G Niarchos[1], W F Li[2] and George Hadjipanayis[3], *[1]Institute of Materials Science, NCSR DEMOKRITOS, Greece; [2]Department of Physics and Astronomy, U of Delaware, Newark, Delaware, USA; [3]Department of Physics and Astronomy, U of Delaware, Newark Delaware, USA*

DE: Magnetic memories and logics

July 10 (Tue), 15:30~17:00, Room 201 (2F)

Chairperson: T. Endoh (Tohoku University, Japan)

DE01 **Micromagnetic simulation of magnetic nanostructures**
15:30 Thomas Schrefl*, Simon Bance, Lukas Exl, Johann Fischbacher, Harald Oezelt and Franz Reichel, *St. Poelten University of Applied Sciences, Austria*

DE02 **Multi-bit magnetic memory based on the extraordinary Hall effect.**
16:00 Alexander Gerber and Amir Segal, *School of Physics and Astronomy, Tel Aviv University, Israel*

DE03 **Epitaxial Fe/MgO/Fe tunnelling junctions on $BaTiO_3$ (001)**
16:15 Greta Radaelli* and Riccardo Bertacco, *LNESS center - Polo regionale di Como - Politecnico di Milano, via Anzani 42 (Como), Italy*

DE04 **Experimentally performed periodic NOT/AND/OR magnetic quantum dots cellular automata gate**
16:30 Hikaru Nomura*, Yukihiro Imanaga, Yusuke Hiratsuka and Ryoichi Nakatani, *Division of Materials and Manufacturing Science, Osaka University, Japan*

DE05 **Energy-efficient control of vortex-core polarizations by tailored orthogonal pulse currents in cross-point architecture**
16:45 Young-sang Yu[1], Ki-suk Lee[1], Hyunsung Jung[1], Youn-seok Choi[1], Dong-soo Han[1], Myoung-woo Yoo[1], Mi-young Im[2], Peter Fischer[2] and Sang-koog Kim[1]*, *[1]National Creative Research Initiative Center for Spin Dynamics & Spin-Wave Devices & Nanospinics Lab, Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Seoul, Korea; [2]Center for X-ray Optics, Lawrence Berkeley National Laboratory, Berkeley CA 94720, USA*

DF: Chiral magnet and magnetic skyrmions

July 10 (Tue), 15:30~17:00, Room 202 (2F)

Chairperson: Kazuyoshi Yamada (KEK, Japan)

DF01 **Skyrmion dynamics in metallic chiral ferromagnet**
15:30 Jung Hoon Han[1], Jin-hong Park[1], Jiadong Zang[2], Naoto Nagaosa[3] and Maxim Mostovoy[4], *[1]Physics, Sungkyunkwan University, Korea; [2]Physics, Fudan University, China; [3]Applied Physics, The University of Tokyo, Japan; [4]Zernike Institute for Advanced Materials, University of Groningen, Netherlands*

DF02 **Long-range crystalline nature of the skyrmion lattice in MnSi**
16:00 Tim Adams[1], Sebastian Muhlbauer[2], Christian Pfleiderer[3], Florian Jonietz[3], Andreas Bauer[3], Andreas Neubauer[3], Robert Georgii[3], Peter Boni[3], Uwe Keiderling[4], Karin Everschor[5], Markus Garst[5] and Achim Rosch[5], *[1]TU Munchen, E21, Germany; [2]Institut fur Festkorperphysik, ETH Zurich, Zurich, Switzerland; [3]Physik-Department E21, Technische Universitat Munchen, D-85748 Garching, Germany; [4]Helmholtz Zentrum Berlin, BENSC, D-14109 Berlin, Germany; [5]Institute of Theoretical Physics, Universitat zu Koln, D-50937 Koln, Germany*

DF03 **Magnetic textures and electron transport in chiral helimagnets**
16:15 Jun-ichiro Kishine[1], Alexander Ovchinnikov[2], Igor Proskurin[2], Yoshihiko Togawa[3], Yusuke Kousaka[4] and Jun Akimitsu[4], *[1]Graduate School of Arts and Sciences, The Open University of Japan, Japan; [2]Department of Physics, Ural Federal University, Russia; [3]N2RC, Osaka Prefecture University, Japan; [4]Department of Physics, Aoyama Gakuin University, Japan*

DF04 **The hexagonal spin structure of A-phase in MnSi**
16:30 Sergey Grigoriev[1]*, Nadezhda M. Potapova[1], Evgeny V. Moskvin[1], Vadim A. Dyadkin[1], Charles Dewhurst[2] and Sergey V. Maleyev[1], *[1]Condensed Matter Department, Petersburg Nuclear Physics Institute, Russia; [2]Institute Laue-Langevin, France*

DG: Magnetic nanowires

July 10 (Tue), 15:30~17:00, Room 203 (2F)

Chairperson: Jean-Marie Le Breton (CNRS - Universite de Rouen, France)

DG01 Preparation and analysis of ni nanowires on si gratings

15:30 Wolfgang Kreuzpaintner[1]*, Boris P. Toperverg[2], Dieter Lott[3], Michael Stoermer[3], Volker Neu[4], Christina Bran[4], Stefan Mattauch[5], Andreas Schreyer[3] and Peter Boeni[1], *[1]Physik Department E21, Technische Universitaet Muenchen James-Franck-Strasse 1 85748 Garching, Germany; [2]Fakultaet fuer Physik und Astronomie Ruhr-Universitaet Bochum 44780 Bochum, Germany; [3]Helmholtz-Zentrum Geesthacht Max-Planck-Strasse 1 21502 Geesthacht, Germany; [4]Magnetic Microstructures, IFW Dresden, Institute for Metallic Materials Helmholtzstrasse 20 01069 Dresden, Germany; [5]JCNS Outstation at FRM II Forschungszentrum Juelich GmbH Lichtenbergstrasse 1 85747 Garching, Germany*

DG02 Elaboration and characterization of Cu/Co multilayered nanowires

15:45 Julien Bran[1], Malick Jean[1], Rodrigue Larde[1], Jean-marie Le Breton[1]* and Alain Pautrat[2], *[1]Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France; [2]CRISMAT, UMR 6508 CNRS, ENSICAEN - Universite de Caen, France*

DG03 Microstructure and magnetic properties of as-deposited and annealed FeCo-based nanowires

16:00 Cristina Bran[1]*, Javier Garcia[2], Victor Prida[2], Rafael Perez Del Real[1] and Manuel Vazquez[1], *[1]Institute of Materials Science of Madrid, CSIC. 28049 Madrid, Spain; [2]Dept. Fisica, Universidad de Oviedo. 33007 Oviedo, Spain*

DG04 FMR behavior of Co nanowire arrays

16:15 Massimo Pasquale*, Carlo Paolo Sasso, Elena Sonia Olivetti, Marco Coisson and Federica Celegato, *Divisione Elettromagnetismo, INRIM, Italy*

DG05 In situ magnetic field dependent Lorentz microscopy in Co nanowires grown by focused electron beam induced deposition

16:30 Luis Alfredo Rodriguez[1], Cesar Magen[2]*, Luis Serrano-ramon[3], Etienne Snoeck[4], Rosa Cordoba[1], Jose Maria De Teresa[3] and Manuel Ricardo Ibarra[1], *[1]LMA-INA, Universidad de Zaragoza, 50018, Zaragoza, Spain; [2]LMA-INA and ARAID, Universidad de Zaragoza, 50018, Zaragoza, Spain; [3]ICMA, Universidad de Zaragoza-CSIC, 50009, Zaragoza, Spain; [4]CEMES-CNRS 29, rue Jeanne Marvig B.P. 94347 F-31055, Tolouse Cedex, France*

DG06 Morphology and magnetic properties of GaAs/(Ga,Mn)As core-shell nanowires on Si (111) synthesized by self-catalyzed method

16:45 Xuezhe Yu, Hailong Wang and Jianhua Zhao*, *State Key Laboratory of Superlattices and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences, China*

DH: Oxide

July 10 (Tue), 15:30~17:00, Room 204 (2F)

Chairperson: Jesus Rodriguez Fernandez (Universidad de Cantabria, Spain)

DH01 Novel functionality and devices via complex oxide heteroepitaxy

15:30 Yuri Suzuki[1]*, Franklin Wong[2], Chunyong He[2], Brittany Nelson- Cheeseman[2] and Elke Arenholz[3], *[1]Applied Physics, Stanford University, USA; [2]Materials Science and Engineering, University of California, Berkeley, USA; [3]Advanced Light Source, Lawrence Berkeley National Laboratory, USA*

DH02 Quantum oscillations and subband properties of the $LaAlO_3/SrTiO_3$ heterointerface

16:00 Alix Mccollam[1]*, Sander Wenderich[2], Michelle Kruize[2], Veerendra Guduru[1], Hajo Molegraaf[2], Mark Huijben[2], Gertjan Koster[2], Dave Blank[2], Guus Rijnders[2], Alexander Brinkman[2], Hans Hilgenkamp[2], Ulrich Zeitler[1] and Jan Kees Maan[1], *[1]High Field Magnet Laboratory, Radboud University Nijmegen, Netherlands; [2]MESA+ Institute for Nanotechnology, University of Twente, Netherlands*

DH03 Electronic ordering in sodium cobaltate

16:15 Daniel Graham Porter[1], Michel Roger[2], Andrew Boothroyd[3], Carlo Vecchini[4], Steve Collins[4], S. Uthayakumar[1], D. Prabhakaran[3], Manoj Pandiyan[1] and Jon Goff[1], *[1]Department of Physics, Royal Holloway University of London, United Kingdom; [2]Service de Physique de l'Etat Condense, CEA Sarclay, France; [3]Clarendon Laboratory, University of Oxford, United Kingdom; [4]Diamond Light Source, Harwell Science and Innovation Campus, United Kingdom*

DH04 Electrical switching of the magnetic phase in semiconductor oxides

16:30 Antonio Ruotolo[1], Xiao Lei Wang[1], Chi Wah Leung[2] and Rolf Lortz[3], *[1]Department of Physics and Materials Science, City University of Hong Kong, Hong Kong; [2]Department of Applied Physics, Hong Kong Polytechnic University, Hong Kong; [3]Department of Physics, Hong Kong University of Science and Technology, Hong Kong*

DH05 An approach to achieve layered spintronics material using Brownmillerite compound $Ca_{2.5}Sr_{0.5}GaMn_2O_8$

16:45 S. M. Yusuf* and A. K. Bera, *Solid State Physics Division, Bhabha Atomic Research Centre, Mumbal 400 085, India*

DI: Spin caloritronics I

July 10 (Tue), 15:30~17:00, Room 205 (2F)

Chairperson: E. Saitoh (Institute for Materials Research, Tohoku University, Japan)

DI01 Magnon-drag thermopile

15:30 M. V. Costache[1], G. Bridoux[1], I. Neumann[2] and S. O. Valenzuela[3], *[1]Catalan Institute of Nanotechnology (ICN), Spain; [2]Catalan Institute of Nanotechnology (ICN) and Universitat Autonoma de Barcelona (UAB), Spain; [3]ICREA, Catalan Institute of Nanotechnology (ICN) and Universitat Autonoma de Barcelona (UAB), Spain*

DI02 Seebeck spin tunneling in silicon

16:00 Ron Jansen, *National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan*

DI03 Tunneling magneto Seebeck effect

16:30 Andy Thomas[1], Markus Munzenberg[2] and Christian Heiliger[3], *[1]Physics, Bielefeld University, Germany; [2]Physics, Gottingen University, Germany; [3]Physics, Gießen University, Germany*

DJ: Applications

July 10 (Tue), 15:30~17:00, Room 206 (2F)

Chairperson: Alexander Grishin (KTH Royal Institute of Technology, Sweden)

DJ01 Novel clathrate-based composite materials for energy-efficient magnetic refrigeration

15:30 Anurag Chaturvedi, Stevce Stefanoski, George S. Nolas, Hariharan Srikanth and Manh-huong Phan*, *Department of Physics, University of South Florida, USA*

DJ02 Magnetocaloric properties of doped $La_{0.7}Sr_{0.3}MnO_3$ bulk ceramic and thick films
16:00 Jong-woo Kim*, Jungho Ryu, Byung-dong Hahn, Jong-jin Choi, Woon-ha Yoon, Cheol-woo Ahn, Joon-hwan Choi and Dong-soo Park, *Korea Institute of Materials Science (KIMS), Korea*

DJ03 Structural ,magnetic and magnetocaloric properties of $Ni_{50}Mn_{37.5}Sn_{12.5}$ ribbon Heusler alloys
16:15 Mst. Nazmunnahar[1]*, Lorena Gonzalez[2], Juanjose Delval[1], Joanjosep Sunyol[3], Julianmaria Gonzalez[1] and Blanca Hernando[2] *[1]Material Physics Department, University of Basque Country(UPV/EHU), Spain; [2]Material Physics Department, University of Oviedo, Spain; [3]Material Physics Department, University of Girona, Spain*

DJ04 Dependence of the magnetocaloric effect in ferromagnetic shape memory Heusler alloys on measurement protocol
16:30 Vladimir Khovaylo[1]*, Konstantin Skokov[2], Hiroyuki Miki[3] and Oliver Gutfleisch[2], *[1]National University of Science and Technology 'MISiS', Moscow 119049, Russia; [2]Institute for Metallic Materials, P.O. Box 270016, D-01171 Dresden, Germany; [3]Institute of Fluid Science, Tohoku University, Sendai 980-8577, Japan*

DJ05 Magnetocaloric effects in manganites with perovskite structure
16:45 Abdelwaheb Cheikhrouhou*, Wissem Cheikhrouhou-koubaa and Mohamed Koubaa, *Materials Physics Laboratory, Faculty of Sciences of Sfax, Tunisia*

EA: Non-Fermi liquids and quantum phase transitions II

July 10 (Tue), 17:20~18:50, Room101~3 (1F)

Chairperson: S. Paschen (Vienna University of Technology, Austria)

EA01 Quantum phase transitions in heavy-fermion systems
17:20 Hilbert V. Lohneysen*, *Karlsruher Institut fur Technologie, Physikalisches Institut and Institut fur Festkorperphysik, Germany*

EA02 Lifshitz transitions and non-fermi liquid behavior in heavy-fermion metals
17:50 Matthias Vojta*, *Institut fuer Theoretische Physik, Technische Universitaet Dresden, Germany*

EA03 Sequential spin polarization of the fermi surface pockets in URu_2Si_2 and its implications for the hidden order
18:20 Neil Harrison[1], Moaz Altarawneh[1], Luis Balicas[2], P H Tobash[1], J D Thompson[3], F Ronning[3] and E D Bauer[3], *[1]National High Magnetic Field Laboratory, Los Alamos National Laboratory, USA; [2]National High Magnetic Field Laboratory, Tallahassee, USA; [3]Los Alamos National Laboratory, USA*

EA04 Hydrostatic pressure study of the nematicity of $Sr_3Ru_2O_7$
18:35 Dan Sun[1], Wenlong Wu[1], Santiago Grigera[2], Robin Perry[3], Andrew Mackenzie[2] and Stephen Julian[1]*, *[1]The Department of Physics, University of Toronto, Canada; [2]Scottish Universities Physics Alliance, School of Physics and Astronomy, University of St. Andrews, United Kingdom; [3]Centre for Science at Extreme Conditions, School of Physics, University of Edinburgh, United Kingdom*

EB: SCES theory I

July 10 (Tue), 17:20~18:50, Room 106~8 (1F)

Chairperson: Kwon Park (KIAS, Korea)

EB01 Pump-probe response for correlated electron systems out of equilibrium
17:20 T. Devereaux*, *Stanford University, USA*

EB02 Correlated electrons in strong electric fields
17:50 Philipp Werner[1], Martin Eckstein[2], Naoto Tsuji[1], Takashi Oka[3] and Hideo Aoki[3], *[1]Department of Physics, University of Fribourg, Switzerland; [2]Max Planck Research Department for Structural Dynamics, University of Hamburg - CFEL, Germany; [3]Department of Physics, University of Tokyo, Japan*

EB03 Photoinduced charge order enhancement in one-dimensional extended hubbard model
18:20 Hantao Lu[1], Shigetoshi Sota[1], Hiroaki Matsueda[2], Janez Bonča[3,4] and Takami Tohyama[1], *[1]Yukawa Institute for Theoretical Physics, Kyoto University, Japan; [2]Sendai National College of Technology, Sendai, Japan; [3]Faculty of Mathematics and Physics, University of Ljubljana, Slovenia; [4] J. Stefan Institute, Slovenia*

EB04 Electric-field effects on complex oxide interfaces: possible two-band superconductivity
18:35 Jason T Haraldsen[1]*, Alexander V Balatsky[1], Peter Woelfle[2] and Quanxi Jia[3], *[1]Theoretical Division and Center for Integrated Nanotechnologies, Los Alamos National Laboratory, USA; [2]Institute for Condensed Matter Theory and Institute for Nanotechnology, Karlsruhe Institute of Technology, Germany; [3]Center for Integrated Nanotechnology, Los Alamos National Laboratory, USA*

EC: Electronic structure / Spintronic materials

July 10 (Tue), 17:20~18:50, Room 104~5 (1F)

Chairperson: Byung Il Min (POSTECH, Korea)

EC01 Electronic structure and phonons in the high pressure phases of cerium
17:20 Borje Johansson[1]* and D. Y. Kim[2], *[1]Department of Physics, University of Uppsala, Sweden; [2]Geophysical Laboratory, Carnegie Institution of Washington, USA*

EC02 From SOC induced phenomena to non-collinear magnetism and electric field effects in magnetic systems
17:50 Arthur Freeman[1] and Kohji Nakamura[2], *[1]Northwestern University, USA; [2]Mie University, Japan*

EC03 First-principles calculation of the A-site ordered perovskite $CaCu_3Fe_4O_{12}$
18:05 Takuya Ueda[1], Mitsuru Kodera[1], Kunihiko Yamauchi[1] and Tamio Oguchi[2]*, *[1]Osaka University, Japan; [2]Osaka University & JST-CREST, Japan*

EC04 Pr partial electron donation and Co spin state changes at the metal-insulator transition in $(Pr_{1-y}Y_y)_{1-x}Ca_xCoO_3$ as seen by x-ray absorption and emission
18:20 Javier Herrero-martin[1]*, Jose Luis Garcia-munoz[1], Carlos Frontera[1], Aura Janeth Baron-gonzalez[1], Jessica Padilla[1], Sergio Valencia[2], Ralf Feyerherm[2], Esther Dudzik[2], Florin Radu[2], Radu Abrudan[3], Gloria Subias[4] and Javier Blasco[4], *[1]Institute of Materials Science of Barcelona - CSIC, Spain; [2]Helmholtz-Zentrum Berlin, BESSY, Germany; [3]Institut fur Experimentalphysik/Festkorperphysik, Ruhr-Universitat Bochum, Germany; [4]Instituto de Ciencia de Materiales de Aragon, CSIC-Univ. Zaragoza, Spain*

EC05 Spin transport in the anisotropic Heisenberg chain at finite temperature and momentum
18:35 Wolfram Brenig[1]* and Robin Steinigeweg[2], *[1]Technical University Braunschweig, Institute for Theoretical Physics, Germany; [2]J. Stefan Institute Ljubljana, Slovenia*

ED: Magnetic thin films and nanostructures I

July 10 (Tue), 17:20~18:50, Room 109~10 (1F)

Chairperson: Minn-Tsong Lin (National Taiwan University, Taiwan)

ED01 Growth of metastable fcc-Fe film on Cu(100) single-crystal underlayer and phase transformation from fcc to bcc
17:20 Mitsuru Ohtake*, Kohei Shimamoto and Masaaki Futamoto, *Faculty of Science and Engineering, Chuo University, Japan*

ED02 Neel temperature and the thickness of surface NiO
17:35 Wei Pan*, Ying-ta Shih and Chien-yu Su, *National Chung Cheng University, Taiwan*

ED03 Reduced exchange bias field in antiferromagnet-patterned FeF_2/Ni stripes
17:50 R. Morales[1]*, J. E. Villegas[2], D. Navas[3], N. Soriano[3], E. Castellano-hernandez[3], X. Batlle[4], F. Castano[3] and Ivan K. Schuller[5], *[1]University of the Basque Country and IKERBASQUE Basque Foundation for Science, Bilbao, Spain; [2]Unite Mixte de Physique CNRS/Thales and Universite Paris Sud, Orsay, France; [3]Universtity of the Basque Country, Leioa, Spain; [4]Universitat de Barcelona, Barcelona, Spain; [5]University of California San Diego, La Jolla, USA*

ED04 Experimental verification of the magnetic interactions between Co particles in C_{60}-Co granular films
18:05 Shuhei Toyokawa*, Eiiti Tamura, Eiji Shikoh, Teruya Shinjo and Masashi Shiraishi, *Osaka Univ., Japan*

ED05 Emergent magnetic switching in spin glass $La_{0.7}Sr_{0.3}(Mn,Fe)O_3/La_{0.7}Sr_{0.3}MnO_3$ thin films
18:20 Zhi-hong Wang[1]*, Bao-gen Shen[1], Ji-rong Sun[1], G. Cristiani[2] and H. U. Habermeier[2], *[1]Institute of Physics, Chinese Academy of Sciences, P. O. Box 603, Beijing 100190., China; [2]Max-Planck-Institute for Solid State Research, Heisenbergstrasse 1, D-70569, Stuttgart., Germany*

ED06 FM-AFM crossover in vanadium oxide nanomaterials.
18:35 Sergey Demishev[1]*, Alexey Chernobrovkin[1], Vladimir Glushkov[1], Nickolay Sluchanko[1], Nickolay Samarin[1], Alexey Semeno[1], Sergey Balakhonov[2], Bulat Churagulov[2], Anastasiya Grigorieva[2] and Evgenii Goodilin[2], *[1]Low Temperatures and Cryogenic Engineering, General Physics Institute of RAS, Russia; [2]Faculty of Materials Sciences, Moscow State University, Moscow, 119991 Russia*

EE: Spin-orbit spin torque

July 10 (Tue), 17:20~18:50, Room 201 (2F)

Chairperson: J. Wunderlich (Hitachi Cambridge Lab, UK)

EE01 Spin hall effect from first principles
17:20 Christian Herschbach[1], Katarina Tauber[1], Dmitry Fedorov[1], Martin Gradhand[2] and Ingrid Mertig[3]*, *[1]Theory Department, Max Planck Institute of Microstructure Physics Halle, 06120 Halle, Germany; [2]H. H. Wills Physics Laboratory, University of Bristol, Bristol BS8 1TH, United Kingdom; [3]Institute of Physics, Martin Luther University Halle, 06099 Halle, Germany*

EE02 Spin transfer torques in magnetic bilayers with strong spin orbit coupling
17:35 Mark D. Stiles[1]*, Paul M. Haney[1], Kyung-jin Lee[2] and Hyun-woo Lee[3], *[1]Center for Nanoscale Science and Technology, National Institute of Standards and Technology, USA; [2]Department of Materials Science and Engineering, Korea University, Korea; [3]PCTP and Department of Physics, Pohang University of Science and Technology, Korea*

EE03 Diffusive spin dynamics in ferromagnetic thin films with a Rashba interaction
18:05 Xuhui Wang* and Aurelien Manchon, *KAUST, Saudi Arabia*

EE04 Emergence of magnetic monopoles in magnetic systems with spin-orbit coupling
18:20 Akihito Takeuchi* and Gen Tatara, *Department of Physics, Tokyo Metropolitan University, Japan*

EE05 Generalization of Gilbert damping in Rashba systems
18:35 Kyoung-whan Kim[1]*, Jung-hwan Moon[2], Kyung-jin Lee[2] and Hyun-woo Lee[1], *[1]Department of Physics, POSTECH, Korea; [2]Department of Materials Science and Engineering, Korea University, Korea*

EF: Intermetallic compounds

July 10 (Tue), 17:20~18:50, Room 202 (2F)

Chairperson: Je-Geun Park (Seoul Natonal University, Korea)

EF01 Superconducting, antiferroquadrupolar, and structural transitions in caged compounds PrT_2Zn_{20} (T=Ru, Rh, and Ir)
17:20 Takahiro Onimaru[1], K. T. Matsumoto[1], N. Nagasawa[1], Y. F. Inoue[1], K. Umeo[1], S. Kittaka[2], T. Sakakibara[2], Y. Karaki[3], M. Kubota[2] and T. Takabatake[1], *[1]Hiroshima University, Japan; [2]University of Tokyo, Japan; [3]University of the Ryukyus, Japan*

EF02 Structural and magnetic phase separation in $PrMn_2Ge_{2-x}Si_x$ and related compounds
17:50 Shane Joseph Kennedy[1]*, Jianli Wang[2], Stewart Campbell[3], Michael Hofmann[4] and Shixue Dou[5], *[1]Bragg Institute, Australian Nuclear Science and Technology Organisation, Lucas Heights, NSW 2234, Australia; [2]Bragg Institute, Australian Nuclear Science and Technology Organisation, Lucas Heights, NSW, 2234, Australia; [3]School of Physical, environmental and Mathematical Sciences, The University of NSW, Canberra, ACT 2600, Australia; [4]FRM-II, Technische Universitat Munchen, 85747 Garching, Germany; [5]Institute of Superconducting and Electronic Materials, The University of Wollongong, Wollongong NSW, 2522, Australia*

EF03 Observations of magnetic and ferroelastic nanoclusters in RCo_2
18:05 Julia Herrero-albillos[1], Marcela Bonilla[2]*, Sarah L Driver[3], Irene Calvo[2], Celia Castan[2], Adriana I Figueroa[2], Juan Bartolome[2], Michael A Carpenter[3], Luis Garcia[2] and Fernando Bartolome[2], *[1]CUD, Centro Universitario de la Defensa de Zaragoza, C/ Huesca s/n, Zaragoza, Spain; [2]ICMA and Dpto. de Fisica de la Mat. Cond. CSIC - Universidad de Zaragoza, Pedro Cerbuna 12, Zaragoza, Spain; [3]Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EQ, United Kingdom*

EF04 First-principles molecular dynamics study on the magnetic structure of Mn_3Pt
18:20 Takashi Uchida[1]*, Yoshiro Kakehashi[2] and Nobuyuki Kimura[1], *[1]Hokkaido Institute of Technology, Japan; [2]University of the Ryukyus, Japan*

EF05 One-dimentional magnetism in metallic MnB_4
18:35 Sergii Khmelevskyi, Josef Redinger and Peter Mohn, *Institute of Applied Physics, Vienna University of Technology, Austria*

EG: Metal spintronics I

July 10 (Tue), 17:20~18:50, Room 203 (2F)

Chairperson: Y. Otani (University of Tokyo, Japan)

EG01 Negative spin current polarization in amorphous CoFeB measured via the spin-wave doppler effect
17:20 Konrad Hsu Aschenbach[1], Meng Zhu†[1] and Robert D Mcmichael[2]*, *[1]Center for Nanoscale Science and Technology, NIST / Maryland Nanocenter, University of Maryland, USA; [2]Center for Nanoscale Science and Technology, NIST, Gaithersburg, MD 20899, USA*

EG02 Switching the conductance of a magnetostrictive nanocontact by magnetic field
17:35 Marc Mueller, Christoph Suergers*, Richard Montbrun and Hilbert V. Lohneysen, *Physikalisches Institut and DFG Center for Functional Nanostructures, Karlsruhe Institute of Technology (KIT), Germany*

EG03 Spin wave and spin pumping in permalloy strips
17:50 Sankha Subhra Mukherjee, Jae Hyun Kwon, Mahdi Jamali, Praveen Deorani and Hyunsoo Yang*, *National University of Singapore, Singapore*

EG04 18:20 **Clarification of oxygen impurity effect on NCMR with the film resistivity and bulk scattering spin asymmetry for [FeCo/Natural Oxidation] multi-layers**
Yohei Shiokawa, *Tohoku university, Japan*

EG05 18:35 **Room-temperature magnetoresistance properties of planar-type Ni nanostructures controlled from nanoconstrictions to nanogaps**
Jun Kitagawa, Ryutaro Suda and Jun-ichi Shirakashi*, *Department of Electrical and Electronic Engineering, Tokyo University of Agriculture and Technology, Japan*

EH: Novel materials and devices I

July 10 (Tue), 17:20~18:50, Room 204 (2F)

Chairperson: Alexander Granovsky (M.V. Lomonosov Moscow State University, Russia)

EH01 17:20 **New materials for enhancing device perpormance in spintronics**
Koichiro Inomata, Hiroaki Sukegawa, Zhechao Wen and Seiji Mitani, *Magnetic Materials Unit, National Institute for Materials Science (NIMS), Japan*

EH02 17:50 **Organic high temperature ferromagnetic compositions**
Young-wan Kwon[1]*, Chang Hoon Lee[2], Dong Hoon Choi[1], Jung-il Jin[1], Eui-kwan Koh[3] and Y. H. Geerts[4], *[1]Chemistry, Korea University, Korea; [2]Polymer Science & Engineering, Chosun University, Korea; [3]Seoul Branch, Korea Basic Science Institute, Korea; [4]Chemistry, Universite Libre de Bruxelles, Belgium*

EH03 18:05 **Structure and magnetic properties of the new ferrimagnetic $AFe_3O(PO_4)_3$ (A=Ca,Sr,Cd,Pb) compounds**
Hassan El Hafid[1], Matias Velazquez[1]*, Olivier Perez[2], Abdelaziz El Jazouli[3], Alain Pautrat[2], Rodolphe Decourt[1], Philippe Veber[1], Oudomsack Viraphong[1], Emmanuel Veron[4] and Claude Delmas[1], *[1]Institut de la Chimie de la Matiere Condensee de Bordeaux, CNRS, France; [2]CRISMAT, CNRS/ENSICaen, France; [3]LCMS, Universite de Casablanca, Morocco; [4]CEMHTI-CNRS, France*

EH04 18:20 **Magnonic metamaterials formed by arrays of Co antidots on continuous NiFe films**
Ehsan Ahmad, Yat-yin Au, Toby Davison, Mykola Dvornik and Volodymyr Kruglyak*, *University of Exeter, United Kingdom*

EH05 18:35 **Formation of FeSi thin films and magnetic properties**
Yooleemi Shin[1], Tuan Anh Duong[1], Seungmok Jeon[1], Dung Duc Dang[2], Thiet Van Duong[1] and Sunglae Cho[1]*, *[1]Department of Physics, University of Ulsan, Korea; [2]Department of General Physics, School of Engineering Physics, Ha Noi University of Science and Technology, Viet Nam*

EI: Perpendicular magnetic anisotropy materials

July 10 (Tue), 17:20~18:50, Room 205 (2F)

Chairperson: Jian Shen (Fudan University, China)

EI01 17:20 **Perpendicular magnetic anisotropy in $Fe/Fe_{1-x}Co_x$ multilayers**
Maciej Dabrowski[1], Pedro Gastelois[1], Fikret Yildiz[1], Takeshi Nakagawa[2], Yasushi Takagi[2], Toshihiko Yokoyama[2], Marek Przybylski[1]* and Jurgen Kirschner[1], *[1]Max-Planck-Institut fur Mikrostrukturphysik, Halle, Germany; [2]Institute for Molecular Science, Okazaki, Japan*

EI02 17:35 **Effect of annealing temperature on L1° ordering and perpendicular magnetic anisotropy of FePd/ CoFeB films**
Mohammed Nazrul Islam Khan*, Hiroshi Naganuma, Nobuhito Inami, Yusuke Ohdaira, Mikihiko Oogane and Yasuo Ando, *Applied Physics, Tohoku University, Japan*

EI03 17:50 **Magnetic properties of tetragonally strained Fe/(W,Re) multilayers**
Cristina Bran[1], Matthias Hudl[2], Matts Bjorck[1], Vassilios Kapaklis[1] and Gabriella Andersson[1]*, *[1]Department of Physics and Astronomy, Uppsala University, Sweden; [2]Department of Engineering Sciences, Uppsala University, Sweden*

EI04 18:05 **Alloying as a possible mechanism in annealing induced perpendicular magnetic anisotropy in alumina/Co/M (where M=Pd,Pt or Au) trilayers**
Patrick Warin, Alain Marty, Ariel Brenac, Lucien Notin, Stephanie Pouget, Celine Vergnaud, Cyrille Beigne and Matthieu Jamet*, *INAC, Commissariat a l'Energie Atomique et aux Energies Alternatives, France*

EI05 18:20 **High perpendicular magnetic anisotropy at Co_xNi_{1-x}(x = 0.0~1.0)/α-Cr_2O_3 interface**
Yu Shiratsuchi*, Hiroto Oikawa, Shin-ichi Kawahara and Ryoichi Nakatani, *Osaka University, Japan*

EI06 18:35 **Controlling domain wall motion by electric fields in perpendicularly magnetized materials**
Adrianus Schellekens*, Arno Van Den Brink, Jeroen Franken, Henk Swagten and Bert Koopmans, *Applied Physics, Eindhoven University of Technology, Netherlands*

EJ: Rare-earth hard magnetic materials

July 10 (Tue), 17:20~18:50, Room 206 (2F)

Chairperson: O.Gutfleisch (TU Darmstadt, Germany)

EJ01 17:20 **Evaluation of interlayer exchange coupling in α-Fe(100)/$Nd_2Fe_{14}B$(001) Films**
Daisuke Ogawa[1], Kunihiro Koike[1], Shigemi Mizukami[2], Takamichi Miyazaki[3], Mikihiko Oogane[3], Yasuo Ando[3] and Hiroaki Kato[1], *[1]Graduate School of Science and Engineering, Yamagata University, Japan; [2]WPI-AIMR, Tohoku University, Japan; [3]Graduate School of Engineering, Tohoku University, Japan*

EJ02 17:35 **Morphology and magnetic properties of $SmCo_3$/Fe and Sm_2Co_7/FeCo nanocomposite magnets prepared via severe plastic deformation**
Narayan Poudyal, Nguyen Van Vuong, Ying Zhang and J. Ping Liu*, *Department of Physics, University of Texas at Arlington, USA*

EJ03 17:50 **Atomic scale investigation of Sm-Co/Fe nanocomposites: Influence of Fe/Co interdiffusion on the magnetic properties**
Jean-marie Le Breton[1]*, Rodrigue Larde[1], Adeline Maitre[1], Denis Ledue[1], Olivier Isnard[2], Ionel Chicinas[3], Viorel Pop[4] and Dominique Givord[2], *[1]Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France; [2]Institut Neel, CNRS - Universite Joseph Fourier Grenoble, France; [3]Materials Science and Technology Department, Technical University Cluj-Napoca, Romania; [4]Faculty of Physics, Babes-Bolyai University Romania, Romania*

EJ04 18:05 **Effect of particle size on the coercivity of Nd-Fe-B and Sm-Co nanoparticles prepared by surfactant-assisted ball milling**
Nilay Gunduz Akdogan[1]*, Wanfeng Li[1], Dimitrios Niarchos[2] and George Hadjipanayis[1], *[1]Physics and Astonomy, University of Delaware, USA; [2]Institute of Material Science, N. C. S. R., Greece*

FA: Spin caloritronics II

July 11 (Wed), 11:00~12:30, Room101~3 (1F)

Chairperson: S. Valenzuela (ICREA and Catalan Institute of Nanotechnology, Spain)

FA01 11:00 **Dynamical generation of spin currents**
Eiji Saitoh, *Institute for Materials Research, Tohoku University, ASRC, Japan Atomic Energy Agency, Japan*

FA02 **Domain wall motion by the magnonic spin seebeck effect**
11:30 Ulrike Ritzmann, Denise Hinzke and Ulrich Nowak, *Department of Physics, University of Konstanz, Germany*

FA03 **Phonon-drag spin Seebeck effect**
11:45 Hiroto Adachi[1], Jun-ichiro Ohe[2], Saburo Takahashi[3] and Sadamichi Maekawa[1], *[1]Japan Atomic Energy Agency, Japan; [2]Toho University, Japan; [3]Tohoku University, Japan*

FA04 **Entanglement of spin Seebeck effect and anomalous Nernst effect**
12:00 Chia-ling Chien, *Physics and Astronomy, Johns Hopkins University, USA*

FB: Heavy fermions II

July 11 (Wed), 11:00~12:30, Room 104~5 (1F)

Chairperson: J. D. Thompson (Los Alamos National Lab., USA)

FB01 **Textured superconductivity in the heavy fermion CeRhIn5**
11:00 Xin Lu[1], Tuson Park[2], Han-oh Lee[1], I. Martin[1], V. A. Sidorov[3], K. Gofryk[1], F. Ronning[1], E. D. Bauer[1] and J. D. Thompson[1], *[1]Los Alamos National Lab, USA; [2]Department of Physics, Sungkyunkwan University, Korea; [3]Vereshchagin Institute of High Pressure Physics, RAS, 142190 Troitsk, Russia*

FB02 **Exotic superconductivity of heavy electrons in artificial two-dimensional Kondo lattices**
11:30 Takasada Shibauchi, *Department of Physics, Kyoto University, Japan*

FB03 **Evolution of quasiparticle entropy in high-field superconducting phase in $CeCoIn_5$**
12:00 Yoshi Tokiwa[1], Philipp Gegenwart[1] and Eric D Bauer[2], *[1]I. Physikalisches Institut, Georg-August-Universitaet Goettingen, 37077 Goettingen, Germany; [2]Los Alamos National Laboratory, Los Alamos, New Mexico 87545, USA*

FB04 **Electronic structure of ferromagnetic heavy fermion $YbNi4P_2$**
12:15 Sven Friedemann[1]*, Swee K Goh[1], Lina Klintberg[1], F Malte Grosche[1], Cornelius Krellner[2], Christoph Geibel[2], Frank Steglich[2] and Helge Roßner[2], *[1]Cavendish Laboratory, University of Cambridge, United Kingdom; [2]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*

FC: Ultrafast switching I

July 11 (Wed), 11:00~12:30, Room 201 (2F)

Chairperson: Peter Fischer (LBNL, USA)

FC01 **Models of spin dynamics; ultrafast heat pulses as a sufficient stimulus for reversal in a ferrimagnet**
11:00 Roy W Chantrell[1], J Barker[1], Rfl Evans[1], U Atxitia2[2], O Chubykalo-fesenko[2] and Rw Chantrell[1], *[1]Physics, University of York, United Kingdom; [2]ICMM, Spain*

FC02 **Coherent spin-photon interaction and ultrafast magnetism: From principles to applications**
11:30 Jean-Yves Bigot, Ji-Wan Kim, Mircea Vomir, and Marie Barthelemy, *IPCMS, CNRS, Universite de Strasbourg, France*

FC03 **Ultrafast switching of ferrimagnets**
12:00 Sonke Wienholdt[1], Denise Hinzke[1], Peter Openeer[2] and Uli Nowak[1], *[1]Department of Physics, University of Konstanz, Germany; [2]Department of Physics, Uppsala University, Sweden*

FD: Vortex dynamics I

July 11 (Wed), 11:00~12:30, Room 202 (2F)

Chairperson: Kristen Buchanan (Colorado State University, USA)

FD01 **Spin wave mediated magnetic vortex core reversal, Towards a 100 ps V(ortex)MRAM**
11:00 Hermann Stoll*, *MPI for Intelligent Systems (formerly MPI for Metals Research), Germany*

FD02 **Magnetic vortices and antivortices - From time-resolved imaging to the influence of temperature**
11:30 Thomas Kamionka, Michael Martens, Andre Drews, Benjamin Krueger, Ole Albrecht and Guido Meier*, *University of Hamburg, Germany*

FD03 **Oersted field contribution on the magnetic vortex core dynamics proved by homodyne detection**
12:00 June Seo Kim[1], Martin Staerk[2], Jungbum Yoon[3], Chun Yeol You[3], Florian Kronast[4], Christian Ulysse[5], Giancarlo Faini[5] and Mathias Klaeui[1]*, *[1]Institut fuer Physik, Johanes Gutenberg-Universitaet Mainz, Germany; [2]Fachbereich Physik, Universitaet Konstanz, Germany; [3]Department of Physics, Inha University, Korea; [4]Helmholtz-Zentrum Berlin fuer Materialien und Energie GmbH, Germany; [5]Phynano Team, Laboratoire de Photonique et de Nanostructures, CNRS, France*

FD04 **Vortex core switching driven by the novel inverse Faraday effect**
12:15 Katsuhisa Taguchi[1]*, Jun-ichiro Ohe[2] and Gen Tatara[1], *[1]Physics, Tokyo Metropolitan University, Japan; [2]Physics, Toho University, Japan*

FE: SCES theory II

July 11 (Wed), 11:00~12:30, Room 203 (2F)

Chairperson: D. Manske (MPI, Germany)

FE01 **Ab initio studies of strongly correlated electron systems**
11:00 Masatoshi Imada, *Department of Applied Physics, University of Tokyo, Japan*

FE02 **Coarse graining tensor renormalization by the higher-order singular value decomposition**
11:30 Tao Xiang, *Institute of Theoretical Physics/Institute of Physics, Chinese Academy of Sciences, China*

FE03 **Monte-carlo approach to stationary non-equilibrium of mesoscopic systems**
12:00 Thomas Pruschke[1]* and Andreas Dirks[2], *[1]Theoretical Physics, Universtat Gottingen, Germany; [2]Theoretical Physics, University of Goettingen, Germany*

FE04 **SU(4) symmetry for strongly correlated electrons: Kondo and mixed-valence effects in terms of gell-mann matrices**
12:15 Konstantin Kikoin, *School of Physics and Astronomy, Tel-Aviv university, Israel*

GA: Superconductivity IV - Fe-based superconductors

July 12 (Thu), 11:00~12:30, Room101~3 (1F)

Chairperson: S. Budko (Iowa State University, USA)

GA01 **Detection of orbital fluctuations above the structural transition temperature in iron pnictides and chalcogenides**
11:00 L. H. Greene[1]*, H. Z. Arhan[1], C. R. Hunt[1], W. K. Park[1], J. Gillett[2], S. D. Das[2], S. E. Sebastian[2], Z. J. Xu[3], J. S. Wen[3], Z. W. Lin[3], Q. Li[3], G. Gu[3], A. Thaler[4], S. Ran[4], S. L. Bud'ko[4], P. C. Canfield[4], D. Y. Chung[5], M. G. Kanatzidis[5], Wei-cheng Lee[1] and P. Phillips[1], *[1]Physics, University of Illinois at Urbana-Champaign, USA; [2]Physics, Cavendish Laboratory, University of Cambridge, United Kingdom; [3]Physics, Brookhaven National Laboratory, USA; [4]Physics and Astronomy, Ames Laboratory and Iowa State University, USA; [5]Materials Science, Argonne National Laboratory, USA*

GA02 Nature of magnetic excitations in superconducting iron superconductors
11:30 Pengcheng Dai, *U. of Tennessee/Institute of Physics, CAS, USA*

GA03 Universal microscopic description of the infrared conductivity of 122 iron arsenides
12:00 Aliaksei Charnukha[1]*, O. V. Dolgov[1], A. A. Golubov[2], Y. Matiks[1], D. L. Sun[1], C. T. Lin[1], B. Keimer[1] and A. V. Boris[1], *[1]Max Planck Institute for Solid-State Research, Germany; [2]Faculty of Science and Technology and MESA+ Institute of Nanotechnology Enschede, Netherlands*

GA04 Various fabricating conditions of potassium doped $BaFe_2As_2$ films by pulsed laser deposition system
12:15 Nam Hoon Lee, Soon-gil Jung and W. N. Kang*, *Department of Physics, SungKyunKwan Univ., Korea*

GB: Multiferroics III - nonreciprocal effect and elecgtronic ferroelectricity

July 12 (Thu), 11:00~12:30, Room 106~8 (1F)

Chairperson: R. Kremer (MPI for Solid State Research, Stuttgart, Germany)

GB01 Nonreciprocal directional dichroism and toroidalmagnons in multiferroic materials
11:00 Nobuo Furukawa[1]* and Shin Miyahara[2], *[1]Department of Physics, Aoyama Gakuin University, Japan; [2]ERATO-Multiferroics Project, Japan Science and Technology Agency, Japan*

GB02 Electronic ferroelectricity in correlated electron systems
11:30 Sumio Ishihara*, Makoto Naka and Akihiko Sekine, *Department of Physics, Tohoku University, Japan*

GB03 Interplay between electronic ferroelectricity and magnetism in molecular TMTTF salts
11:45 Kazuyoshi Yoshimi[1], Hitoshi Seo[2]*, Shoji Ishibashi[3] and Stuart E. Brown[4], *[1]University of Tokyo, and AIST, Japan; [2]RIKEN and JST-CREST, Japan; [3]AIST, Japan; [4]UCLA, USA*

GB04 Dielectric anomaly in dimer-Mott insulator β'-$(BEDT\text{-}TTF)_2ICl_2$ with square lattice
12:00 Satoshi Iguch[i1], Satoru Sasaki[1], Naoki Yoneyama[2], Hiromi Taniguchi[3] and Takahiko Sasaki[4], *[1]IMR, Tohoku Univ., Japan; [2]Univ. of Yamanashi, JST-CREST, Japan; [3]Saitama Univ., Japan; [4]IMR, Tohoku Univ., JST-CREST, Japan*

GB05 Multiferroic transition in a quasi-layered bismuth ferrite
12:15 Chan-ho Yang, *Physics, KAIST, Korea*

GC: Heavy fermions III

July 12 (Thu), 11:00~12:30, Room 104~5 (1F)

Chairperson: Steffen Wirth (Max Planck Institute for Chemical Physics of Solids, Germany)

GC01 Field-dependent Fermi surface and high-field superconductivity in URhGe
11:00 Ed Yelland[1,2*], J. M. Barraclough[2], M. Kepa[3], I. Sheikin[4], D. Sokolov[3], W. Wang[2], K. V. Kamenev3 and A. D. Huxley[1,2], *[1]School of Physics and Astronomy and Centre for Science at Extreme Conditions, University of Edinburgh, United Kingdom; [2]School of Physics and Astronomy, University of St Andrews, United Kingdom; [3]School of Engineering and Centre for Science at Extreme Conditions, University of Edinburgh, United Kingdom; [4]LNCMI, CNRS, Grenoble, France*

GC02 Conventional quantum criticality in $CeCu_2Si_2$
11:30 Oliver Stockert*, *Max-Planck-Institute for Chemical Physics of Solids, Germany*

GC03 Shubnikov-de Haas oscillation in PuIn3
12:00 Yoshinori Haga[1], Oscar Ayala-valenzuela[2], Ross Mcdonald[2], Chuck Mielke[2], Eric D. Bauer[2], J N Mitchell[2], P. H. Tobash[2], Joe D. Thompson[2] and Zachary Fisk[1], *[1]Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [2]Los Alamos National Laboratory, USA*

GC04 Spin fluctuations and Lifshitz transition in UGe_2 probed by Larmor neutron diffraction under pressure
12:15 Dmitry Sokolov[1]*, Robert Ritz[2], Christian Pfleiderer[2], Thomas Keller[3] and Andrew Huxley[1], *[1]The University of Edinburgh, United Kingdom; [2]Technische Universitat Munchen, Germany; [3]MPI Stuttgart, Germany*

GD: Ultrafast switching II

July 12 (Thu), 11:00~12:30, Room 109~10 (1F)

Chairperson: Roy Chantrell (The University of York, UK)

GD01 Ultrafast manipulation of magnetic order
11:00 Theo Rasing, *SSI, Radboud University, Netherlands*

GD02 Ultrafast emergence of nanoscale ferromagnetism far from equilibrium
11:30 Hermann Andreas Durr, *Photon Science, SLAC National Accelerator Laboratory, USA*

GD03 Modeling of ultra-fast magnetisation dynamics
12:00 O. Chubykalo-Fesenko[1]*, U Atxitia[1,2], T.Ostler[2], R.Evans[2] and R.W.Chantrell[2], *[1]aterial Science Institute of Madrid, CSIC, Spain; [2]Physics Department, University of York, UK*

GD04 Ultrafast inverse Faraday effect in paramagnetic dielectrics
12:15 Rostislav V. Mikhaylovskiy*, Euan Hendry and Volodymyr V. Kruglyak, *School of Physics, University of Exeter, United Kingdom*

GE: Domain wall motion I

July 12 (Thu), 11:00~12:30, Room 201 (2F)

Chairperson: Dong-Hyun Kim (Chungbuk National University, Korea)

GE01 Detection of domain wall position and magnetization reversal in nanostructures using the magnon contribution to the resistivity
11:00 Jean-philippe Attane, Van Dai Nguyen, Alain Marty, Piotr Laczkowski, Cyrille Beigne, Lucien Notin, Matthieu Jamet, Williams Savero-torres, Murat Cubukcu and Laurent Vila*, *Universite Joseph Fourier, BP 53, 38041, Grenoble and INAC/ CEA Grenoble, France*

GE02 Tunable resistivity of individual magnetic DWs
11:15 Jeroen Franken*, Mark Hoeijmakers, Henk Swagten and Bert Koopmans, *Department of Applied Physics, Eindhoven University of Technology, Netherlands*

GE03 Observation of domain-wall capacitance in permalloy nanowires
11:30 Kulothungasagaran Narayanapillai, Mahdi Jamali, Ajeesh Sahadevan and Hyunsoo Yang*, *Electrical and Computer Engineering, National University of Singapore, Singapore*

GE04 Proposal new type of low current driven spin logic in PMA TbFeCo wire
11:45 Toma Kanehira and Hiroyuki Awano, *Toyota Technological Institute Information Storage Material Lab., Japan*

GE05 Current-induced domain wall motion in perpendicularly magnetized nanowire
12:00 Teruo Ono, *Kyoto University, Japan*

GF: Spin glasses and diluted magnets

July 12 (Thu), 11:00~12:30, Room 202 (2F)

Chairperson: Seunghun Lee (University of Virginia, USA)

GF01 Melting spin ice
11:00 Sarah Ruth Dunsiger[1], A. A. Aczel[2], C. Arguello[3], H. Dabkowska[4], A. Dabkowski[5], M-h Du[6], T. Goko[3], B. Javanparast[7], T. Lin[7], F. L. Ning[3], H. M. L. Noad[2], D. J. Singh[6], T. J. Williams[2], Y. J. Uemura[3], M. J. P. Gingras[7] and G. M. Luke[2], *[1]Physics Department E21, Technical University of Munich, Germany; [2]Dept of Physics and Astronomy, McMaster University, Canada; [3]Dept of Physics, Columbia University, USA; [4]Brockhouse Institute for Materials Research, McMaster University, Canada; [5]Brockhouse Institute for Materials Research, McMaster University, Canada; [6]Materials Science and Technology Division, Oak Ridge National Laboratory, USA; [7]Dept of Physics and Astronomy, University of Waterloo, Canada*

GF02 Artificial spin ice: Dimensional reduction, avalanches and disorder
11:30 Remo Viktor Hugli, Gerard Duff and Hans - Benjamin Braun*, *Physics, University College Dublin, Ireland*

GF03 Low temperature magnetic studies of geometrically frustrated $SrHo_2O_4$
11:45 Olga Young[1]*, Geetha Balakrishnan[1], Andrew R. Wildes[2], Laurent C. Chapon[2] and Oleg A. Petrenko[1], *[1]Department of Physics, University of Warwick, Coventry, CV4 7AL, United Kingdom; [2]Institut Laue-Langevin, Jules Horowitz, BP156, 38042 Grenoble Cedex 9, France*

GF04 Spin densities in manganese molecular cluster : $[Mn_3L_4](ClO_4)_2(H_2O)_2$
12:00 Clara Rodriguez-blanco[1], Javier Campo[1]*, Jose Alberto Rodriguez-velamazan[1], Beatrice Gillon[2], Javier Luzon[3] and Jose Sanchez-costa[4], *[1]Materials Science Institute of Aragon, (CSIC-University of Zaragoza), Spain; [2]Laboratoire Leon Brillouin, CEA-Saclay, France; [3]Centro Universitario de la Defensa, Zaragoza, Spain; [4]University of Barcelona, Spain*

GF05 Electronic structure and magnetic properties of Cr-doped rutile TiO_2: Charge and magnetic state of crimpurity
12:15 Rokyeon Kim[1], Suyeon Cho[1], Wongoo Park[1], Je-geun Park[1], Se-jung Oh[1], Patrick Berthet[2] and Jaejun Yu[1]*, *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]University of Paris-Sud, France*

GG: Arrays of magnetic nanostructures II

July 12 (Thu), 11:00~12:30, Room 203 (2F)

Chairperson: Sang Ho Lim (Korea University, Korea)

GG01 Magnetic nanoparticle arrays by nanomasking pattern transfer
11:00 Sara Majetich, *Physics, Carnegie Mellon University, USA*

GG02 Spin wave bands and bandgaps in a two-dimensional ferromagnetic antidot array
11:30 Roberto Zivieri[1]*, Silvia Tacchi[2], Federico Montoncello[1], Loris Giovannini[1], Fabrizio Nizzoli[1], Marco Madami[2], Gianluca Gubbiotti[2], Giovanni Carlotti[2], Sebastian Neusser[3], George Duerr[3] and Dirk Grundler[3], *[1]Department of Physics, University of Ferrara, Italy; [2]Department of Physics, University of Perugia, Italy; [3]Department of Physics, University of Muenchen, Germany*

GG03 Ratchet effect in magnetic domain wall motion induced by 2D arrays of triangular submicrometric holes
11:45 Celia Castán-Guerrero[1]*, Aurelio Hierro-Rodriguez[2], Fernando Valdés-Bango[2], Jose Ignacio Martin[2], Javier Sese[3], Julia Herrero-Albillos[4], Fernando Bartolome[1], Juan Bartolome[1], Jose Maria Alameda[2] and Luis Miguel Garcia[1], *[1]Instituto de Ciencia de Materiales de Aragon (Universidad de Zaragoza - CSIC), Spain; [2]Departamento de Fisica, Universidad de Oviedo - CINN, Spain; [3]Instituto de Nanociencia de Aragon (Universidad de Zaragoza), Spain; [4]Centro Universitario de la Defensa, Academia General Militar, Spain*

GG04 Tailored magnetic anisotropy of Py /Co bilayer ordered nanohole arrays
12:00 Karla J. Merazzo, Giovanni A. Badini Confalonieri, Rafael P. Del Real and Manuel Vazquez, *Materials for Information Technologies, Instituto de Ciencia de Materiales de Madrid, CSIC., Spain*

GG05 Tailoring magnetic properties of Co thin films through antidot arrays: crossover from antidot to dot regime
12:15 Celia Castán-Guerrero[1]*, Javier Sese[2], Julia Herrero-Albillos[1,3], Florian Kronast[4], Luis Alfredo Rodriguez[2], Cesar Magen[2], Karla J. Merazzo[5], Manuel Vazquez[5], Juan Bartolome[1], Fernando Bartolome[1], Pavel Strichovanec[2], Paolo Vavassori[6] and Luis Miguel Garcia[1] *[1]Instituto de Ciencia de Materiales de Aragon (Universidad de Zaragoza - CSIC), Spain; [2]Instituto de Nanociencia de Aragon (Universidad de Zaragoza), Spain; [3]Centro Universitario de la Defensa (Academia General Militar), Spain; [4]Helmholtz-Zentrum Berlin fur Materialien und Energie GmbH, Germany; [5]Instituto de Ciencia de Materiales de Madrid (CSIC), Spain; [6]CIC nanoGUNE Consolider, IKERBASKE, Spain*

GH: Novel materials and devices II

July 12 (Thu), 11:00~12:30, Room 204 (2F)

Chairperson: K. Inomata (National Institute for Materials Science, Japan)

GH01 Bio-functional magnetic nanoparticles in biomedical applications
11:00 Herng-er Horng*, *National Taiwan Normal University, Taiwan*

GH02 Spin resolved measurements of single molecular magnets on surfaces
11:30 Jens Brede[1]*, Jorg Schwobel[1], Regis Decker[1], Andrew Dilullo[2], Germar Hoffmann[1], Svetlana Klyatskaya[3], Mario Ruben[3] and Roland Wiesendanger[1], *[1]Institute of Applied Physics, University of Hamburg, Germany; [2]Department of Physics and Astronomy, Ohio University, Germany; [3]Institute of Nanotechnology, Karlsruhe Institute of Technology, Germany*

GH03 MgO tunnel junction magnetic field sensors at high frequencies
11:45 Mustafa Arikan[1]*, Matthew Carter[2], Gang Xiao[3] and Snorri Ingvarsson[4], *[1]Science Institute, University of Iceland, Iceland; [2]Micro Magnetics, Inc., USA; [3]Department of Physics, Brown University, USA; [4]Science Institutte, University of Iceland, Iceland*

GH04 $LaSrVMoO_6$: a compensated half metal or not?
12:00 Zhijian Wu and Jing Wang, *Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, China*

GH05 Pressure effects on the magnetic properties of Emim[$FeCl_4$], a magnetic ionic liquid with antiferromagnetic ordering
12:15 A. Garcia-saiz[1], I. De Pedro[1], J. C. Gomez Sal[1], J. A. Blanco[2] and J. Rodriguez Fernandez[1]*, *[1]CITIMAC, Fac. de Ciencias, Universidad de Cantabria, Spain; [2]Departamento de Fisica, Universidad de Oviedo, Spain*

GI: Organic spintronics and carbon-based spintronics

July 12 (Thu), 11:00~12:30, Room 205 (2F)

Chairperson: Eiji Shikoh (Osaka University, Japan)

GI01 Magnetic proximity and spin behavior at organic semiconductor / ferromagnet interfaces towards molecular spintronics
11:00 Jagadeesh S. Moodera, *Massachusetts Institute of Technology, USA*

GI02 Spin specific transport properties of chiral molecules
11:30 Ron Naaman, *Dep. of Chemical Physics, Weizmann Institute, Israel*

GI03 Reversible and deterministic spin state switching of individual spincrossover molecules on a surface
11:45 Toshio Miyamachi[1]*, Manuel Gruber[2], Vincent Davesne[2], Eric Beaurepaire[2] and Wulf Wulfhekel[1], *[1]Physikalisches Institut, Karlsruhe Institute of Technology, Germany; [2]Institute of Physics and Chemistry of Materials of Strasbourg (IPCMS), UMR 7504 UdS-CNRS, France*

GI04 Graphene-based spintronic components
12:00 Lei Shen, Minggang Zeng and Yuanping Feng*, *Physics, National University of Singapore, Singapore*

GI05 Detection and manipulation of spin currents in graphene with non-magnetic electrodes
12:15 Ivan J. Vera-marun*, Vishal Ranjan, Paul J. Zomer, Marcos H. D. Guimaraes and Bart J. Van Wees, *Physics of Nanodevices, Zernike Institute for Advanced Materials, University of Groningen, Netherlands*

GJ: Intermetallic and other hard magnets

July 12 (Thu), 11:00~12:30, Room 206 (2F)

Chairperson: Yang-Ki Hong (The University of Alabama, USA)

GJ01 Science and technology of modern permanent magnet materials
11:00 George C. Hadjipanayis*, *Physics and Astronomy, University of Delaware, USA*

GJ02 Differential thermal analysis on MnBi in high magnetic fields up to 45 T
11:30 Keiichi Koyama[1]*, Yoshifuru Mitsui[2], Eun Sang Choi[3], Yuki Ikehara[2], Eric Palm[3] and Kazuo Watanabe[2], *[1]Kagoshima University, Japan; [2]Tohoku University, Japan; [3]National High Magnetic Field Laboratory, USA*

GJ03 Magnetization of Dy_2Fe_{17} in fields up to 85 Tesla
11:45 Y. Skourski[1], A. V. Andreev[2], M. D. Kuz'min[3], Y. Narumi[4], K. Kindo[5], N. V. Kudrevatykh[6] and J. Wosnitza[1], *[1]Dresden High Magnetic Field Laboratory, Germany; [2]Institute of Physics ASCR, Prague, Czech Republic; [3]IFW Dresden, Germany; [4]IMR, Tohoku University, Sendai, Japan; [5]ISSP, Tokyo University, Kashiwa, Japan; [6]Ural Federal University, Ekaterinburg, Russia*

GJ04 Electrodeposited FePt films on Ag underlayer with high coercivity
12:00 Sirikanjana Thongmee, *Department of Physics, Faculty of Science, Kasetsart University, Thailand*

GJ05 Magnetic properties of $BaMg_{0.4}Al_{0.4}Fe_{11.2}O_{19}$+$SiO_2$ nanocomposites for high frequency applications
12:15 K Sadhana and K Praveena, *Materials Research Centre, Indian Institute of Science, Banglore-560012, India*

HA: Superconductivity V - Fe-based superconductors

July 12 (Thu), 15:30~17:00, Room101~3 (1F)

Chairperson: Laura H. Greene (University of Illinois at Urbana-Champaign, USA)

HA01 Coexistence of competing orders in unconventional superconductors
15:30 Setsuko Tajima*, E. Uykur, K. Tanaka, T. Masui and S. Miyasaka, *Dept. of Physics, Osaka University, Japan*

HA02 Ultrafast transient generation of spin density wave order in the normal state of $BaFe_2As_2$ driven by coherent lattice vibrations
16:00 Kyungwan Kim[1]*, Alexej Pashkin[2], Hanjo Schafer[2], Markus Beyer[2], Michael Porer[3], Thomas Wolf[4], Christian Bernhard[5], Jure Demsar[2], Rupert Huber[3] and Alfred Leitenstorfer[2], *[1]Department of Physics, Chungbuk National University, Korea; [2]Department of Physics, University of Konstanz, Germany; [3]Department of Physics, University of Regensburg, Germany; [4]Karlsruhe Institute of Technology, Institute for Solid-State Physics, Germany; [5]Department of Physics, University of Fribourg, Switzerland*

HA03 High- and low-energy ARPES study of spin-density wave order in FeTe single crystals and FeTeOx films
16:15 Martin Mansson[1]*, Yuefeng Nie[2], Yasmine Sassa[1], Christof Niedermayer[3], Genda Gu[4], Masaki Kobayashi[5], Vladimir Strokov[5], Johan Chang[6], Magnus Berntsen[7], Olof Gotberg[7], Bastian M. Wojek[7], Oscar Tjernberg[7], Joseph I. Budnick[2] and Barrett O. Wells[2], *[1]Lab. for Solid State Physics, ETH Zurich, Switzerland; [2]Department of Physics, University of Connecticut, USA; [3]Lab. for Neutron Scattering, Paul Scherrer Institut, Switzerland; [4]Brookhaven National Laboratory, USA; [5]Swiss Light Source, Paul Scherrer Institut, Switzerland; [6]LSNS, EPF Lausanne, Switzerland; [7]Materials Physics, Royal Institute of Technology, KTH Stockholm, Sweden*

HA04 Magnetic fluctuations - a driving force for superconductivity Neutron scattering investigations in Fe-based superconductors.
16:30 Alice Elizabeth Taylor[1]*, Russell A. Ewings[2], Toby G. Perring[2], Simon J. Clarke[3] and Andrew T Boothroyd[4], *[1]Department, University of Oxford, United Kingdom; [2]ISIS Facility, Rutherford Appleton Laboratory, STFC, United Kingdom; [3]Department of Chemistry, University of Oxford, United Kingdom; [4]Department of Physics, University of Oxford, United Kingdom*

HA05 Low-energy quasiparticles probed by heat transport in the iron based superconductor lafepo
16:45 Michael Sutherland[1], J. Dunn[2], W. H. Toews[3], Eoin O' Farrell[4], James Analytis[5], Ian Fisher[5] and R. W. Hill[3], *[1]Department of Physics, Univeristy of Cambridge, United Kingdom; [2]Department of Physics, University of Waterloo, Canada; [3]Department of Physics, Univeristy of Waterloo, Canada; [4]I.S.S.P., University of Tokyo, Japan; [5]Geballe Laboratory for Advanced Materials and Department of Applied Physics, Stanford University, USA*

HB: [Symposium] High performance soft magnetic materials and their applications I

July 12 (Thu), 15:30~17:00, Room 106~8 (1F)

Chairperson: G. Herzer (Vacuumschmelze GmbH, Germany)

HB01 Domains and magnetization processes in electrical steel
15:30 Rudolf Schaefer, *Leibniz Institute for Solid State and Materials Research (IFW) Dresden, Germany*

HB02 Iron loss behaviors in 6.5 wt% grain-oriented silicon steel
16:00 Jongryoul Kim* and Heejong Jung, *Department of Metallurgy and Material Science, Hanyang University, Korea*

HB03 FeCoB films with large saturation magnetization and high magnetic anisotropy field to attain high ferromagnetic resonance frequency
16:30 Shigeki Nakagawa, *Dept. of Physical Electronics, Tokyo Institute of Technology, Japan*

HC: Magnetism in s,p electron systems

July 12 (Thu), 15:30~17:00, Room 104~5 (1F)

Chairperson: Miyoung Kim (Ajou University, Korea)

HC01 Magnetism where you least expect it
15:30 Priya Mahadevan, *Department of Condensed Matter Physics and Material Science, S.N.Bose National Centre for Basic Sciences, India*

HC02 Exotic magnetism of s-electron cluster array: Ferromagnetism, ferrimagnetism and antiferromagnetism
16:00 Takehito Nakano[1], Nguyen Hoang Nam[2], Truong Cong Duan[3], Duong Thi Hanh[1], Shingo Araki[4] and Nozue Yasuo[1]*, *[1]Department of Physics, Graduate School of Science, Osaka University, Japan; [2]Hanoi University of Science, Viet Nam; [3]FPT University, Viet Nam; [4]Graduate School of Natural Science and Technology, Okayama University, Japan*

HC03 Spin-dependent molecular arrangement of O_2-O_2 dimer in nanoporous metal-organic solids
16:30 Tatsuo C. Kobayashi[1], Akihiro Hori[2], Yoshiki Kubota[3], Akira Matsuo[4], Koichi Kindo[4], Jungeun Kim[5], Masaki Takata[2], Hirotoshi Sakamoto[6], Ryotaro Matsuda[6] and Susumu Kitagawa[7], *[1]Department of Physics, Okayama University, Japan; [2]RIKEN SPring-8 Center, Japa; [3]Department of Physical Science, Osaka Prefecture University, Japan; [4]ISSP, The University of Tokyo, Japan; [5]JASRI/SPring-8, Japan; [6]ERATO, JST, Japan; [7]ICeMS, Kyoto University, Japan*

HC04 Indications for a field-induced 2D collectively-coupled dimer state in nitronyl-nitroxid biradicals
16:45 Michael Lang[1]*, Bernd Wolf[1], Pham Thanh Cong[1], Ulrich Tutsch[1], Martin Baumgarten[2], Yulia Borozdina[2], Dominik Strassel[3] and Sebastian Eggert[3], *[1]Physics Institute, Goethe-University Frankfurt (M), SFB/TR 49, D-60438 Frankfurt (M), Germany; [2]Max-Planck-Institute for Polymer Research, SFB/TR 49, D-55128 Mainz, Germany; [3]Physics Department and Research Center OPTIMAS, University of Kaiserslautern, D-67663 Kaiserslautern, Germany*

HD: Spin waves I

July 12 (Thu), 15:30~17:00, Room 109~10 (1F)

Chairperson: Hermann Dürr (Standord University, USA)

HD01 Magnon caloritronics
15:30 Burkard Hillebrands*, Vitaliy Vasyuchka, Bjorn Obry and Aleksandr Serga, *Department of Physics, TU Kaiserslautern, Germany*

HD02 Temperature dependence of spin wave resonance frequency in a magnetostatic surface wave mode
16:00 Jae Hyun Kwon[1], Sankha Subhra Mukherjee[2] and Hyunsoo Yang[1]*, *[1]Electrical and Computer Engineering, National University of Singapore, Korea; [2]Electrical and Computer Engineering, National University of Singapore, India*

HD03 Nanoscale spin wave switches and phase shifters
16:15 Yat-yin Au and Volodymyr Kruglyak*, *University of Exeter, United Kingdom*

HD04 Optically induced tunable magnetization dynamics in nanoscale Co antidot lattices
16:30 Ruma Mandal, Susmita Saha, Dheeraj Kumar, Saswati Barman, Semanti Pal, Kaustuv Das, Arup Kumar Raychaudhuri, Yasuhiro Fukuma, Yoshichika Otani and Anjan Barman*, *Condensed Matter Physics and Material Sciences, S. N. Bose National Centre For Basic Sciences, India*

HD05 Plasmonic and quantum plasmonic enhancement of magneto-optics
16:45 Alexey P. Vinogradov[1]*, Denis G. Baranov[1] and Alexander A. Lisyansky[2], *[1]ITAE RAS, Russia; [2]Department of Physics, Queens College of the City University of New York, USA*

HE: Metal spintronics II

July 12 (Thu), 15:30~17:00, Room 201 (2F)

Chairperson: X. Jin (Fudan University, China)

HE01 Pure spin current generation using highly spin polarized Co_2FeSi electrodes
15:30 Takashi Kimura*, Soichiro Oki, Shinya Yamada, Masanobu Miyao and Kohei Hamaya, *Kyushu University, Japan*

HE02 Highly reproducible lateral spin valves for the study of spin injection in metals
15:45 Estitxu Villamor[1], Miren Isasa[1], Luis E. Hueso[2] and Felix Casanova[2]*, *[1]CIC nanoGUNE, Spain; [2]CIC nanoGUNE and IKERBASQUE, Basque Foundation for Science, Spain*

HE03 Extrinsic SHE induced by small impurities in copper
16:00 Yoshichika Otani*, Yasuhiro Niimi, Yohei Kawanishi and Dahai Wei, *ISSP, University of Tokyo, Japan*

HE04 Spin Injection at the $LaAlO_3/SrTiO_3$ Interface
16:30 Nicolas Reyren, Manuel Bibes, Edouard Lesne*, Jean - Marie George, Cyril Deranlot, Sophie Collin, Agnes Barthelemy and Henri Jaffres, *Unite Mixte de Physique CNRS/Thales, France*

HE05 Coherence in collective spin precession in lateral spin valves
16:45 Hiroshi Idzuchi[1]*, Yasuhiro Fukuma[2] and Yoshichika Otani[3], *[1]ISSP, U Tokyo; ASI RIKEN, Japan; [2]ASI RIKEN; Department of Computer Science and Electronics, Kyushu Institute of Technology, Japan; [3]ISSP U Tokyo; ASI RIKEN, Japan*

HF: Spin transfer torque switching

July 12 (Thu), 15:30~17:00, Room 202 (2F)

Chairperson: H. Swagten (Eindhoven University of Technology, Netherlands)

HF01 Bias-dependence of the spin-transfer torques in MgO-based magnetic tunnel junctions
15:30 Soeren Boyn[1], Rie Matsumoto[1], Joao Sampaio[1], Vincent Cros[1], Julie Grollier[1], Akio Fukushima[2], Hitoshi Kubota[2], Kay Yakushiji[2] and Shinji Yuasa[2], *[1]Unite Mixte de Physique CNRS/Thales, France; [2]National Institute of Advanced Industrial Science and Technology, Japan*

HF02 Spin torque assisted magnetization switching in thermally activated region
15:45 Tomohiro Taniguchi and Hiroshi Imamura*, *Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology, Japan*

HF03 Joule heating and spin-transfer torque investigated on the atomic scale
16:00 Stefan Krause*, Gabriela Herzog, Anika Schlenhoff, Andreas Sonntag and Roland Wiesendanger, *Institute of Applied Physics, University of Hamburg, Germany*

HF04 Spin-transfer torque and joule heating of field-emitted electrons
16:15 Anika Schlenhoff*, Andreas Sonntag, Stefan Krause and Roland Wiesendanger, *Institute of Applied Physics, University of Hamburg, Germany*

HF05 Perpendicular spin torque at high bias in MgO-based magnetic tunnel junctions
16:30 Kyung-jin Lee[1]*, Seung-young Park[2], Younghun Jo[2] and Soo-man Seo[1], *[1]Korea University, Korea; [2]Korea Basic Science Institute, Korea*

HG: Magnetometery in nano-scale

July 12 (Thu), 15:30~17:00, Room 203(2F)

Chairperson: Massimo Pasquale (INRIM Torino, Italy)

HG01 Recent progress in spin sem
15:30 Kazuyuki Koike, *Division of Physics, Graduate School of Science, Hokkaido University, Japan*

HG02 Asymmetries in the formation process of magnetic vortex states in a permalloy nanodisk
16:00 Mi-young Im[1], Tomonori Sato[2], Yoshinobu Nakatani[2], Keisuke Yamada[3], Teruo Ono[3], Shinya Kasai[4], Andreas Vogel[5], Guido Meier[5] and Peter Fischer[1], *[1]LBNL/CXRO, USA; [2]University of Electro-Communications, Japan; [3]Kyoto University, Japan; [4]NIMS, Japan; [5]Universitat Hamburg, Germany*

HG03 Magnetization switching utilizing the magnetic exchange interaction
16:30 Rene Schmidt*, Alexander Schwarz and Roland Wiesendanger, *Institute of Applied Physics, University of Hamburg, Germany*

HG04 X-ray spectroscopy in pulsed high magnetic fields
16:45 Cornelius Strohm[1]*, Olivier Mathon[1], Marcin Sikora[2], Peter J. E. M. Van Der Linden[1], Thomas Roth[1], Tom T. A. Lummen[3], Paul H. M. Van Loosdrecht[4] and Rudolf Rueffer[5], *[1]European Synchrotron Radiation Facility, 6 rue Jules Horowitz 38000 Grenoble, France; [2]Department of Solid State Physics, Faculty of Physics and Applied Computer Science, AGH University of Science and technology, Krakow, Poland; [3]Department of Materials Science and Engineering, The Pennsylvania State University. 121 Steidle Building, University Park, PA, USA; [4]Zernike Institute for Advanced Materials, University of Groningen. Nijenborgh 4, 9747 AG Groningen, Netherlands; [5]European Synchrotron Radiation Facility, France*

HH: Magnetometry in macro-scale

July 12 (Thu), 15:30~17:00, Room 204 (2F)

Chairperson: Derac Son (Hannam University, Korea)

HH01 Recent developments in magnetic measurements: From technical method to physical knowledge
15:30 Vittorio Basso, Fausto Fiorillo*, Alessandro Magni, Cinzia Beatrice, Ambra Caprile, Michaela Kuepferling and Carlo Paolo Sasso, *Istituto Nazionale di Ricerca Metrologica, Italy*

HH02 So, you need reliable magnetic measurements you can use with confidence? How the magnetic measurement capabilities at NPL can help
16:00 Michael Hall, *National Physical Laboratory, United Kingdom*

HH03 Application of pulsed eddy current technique to inspect the pipeline of nuclear plants
16:30 D. G Park, *korea atomic energy research institute, Korea*

HI: Topological insulators I

July 12 (Thu), 15:30~17:00, Room 205 (2F)

Chairperson: Han Woong Yeom (POSTECH, Korea)

HI01 Probing the exotic surface states in topological insulators and superconductors
15:30 Yoichi Ando*, *ISIR, Osaka University, Japan*

HI02 Electronic structure study of bulk HgTe via angle resolved photoemission spectroscopy
*Withdrawn Chang Liu[1], Suyang Xu[1], Madhab Neupane[1], Helin Cao[2], Ireneusz Miotkowski[2], L. Andrew Wray[3], Hsin Lin[4], R. S. Markiewicz[4], A. Bansil[4], Yong P. Chen[2] and M. Zahid Hasan[1], *[1]Joseph Henry Laboratory and Department of Physics, Princeton University, USA; [2]Department of Physics, Purdue University, USA; [3]Advanced Light Source, Lawrence Berkeley National Laboratory, USA; [4]Department of Physics, Northeastern University, USA*

HI03 Hidden topological order in URu_2Si_2
16:00 Tanmoy Das, *Theoretical Division, Los Alamos National Laboratory, USA*

HI04 Robustness of 1D topological superconductors with Majorana edge states against lattice modulation
16:15 Masaki Tezuka* and Norio Kawakami, *Department of Physics, Kyoto University, Kitashirakawa, Sakyo-ku, Kyoto 606-8502, Japan*

HI05 Floquet theory of photo-induced topological phase transitions: Application to graphene
16:30 Takashi Oka, *The University of Tokyo, Japan*

HJ: 4d and 5d compounds

July 12 (Thu), 15:30~17:00, Room 206 (2F)

Chairperson: Kibong Lee (POSTECH, Korea)

HJ01 Strong coupling of spin, orbital and lattice degrees of freedom in Ru oxides
15:30 Je Geun Park, *Department of Physics & Astronomy, Seoul National University, Korea*

HJ02 Competing magnetic interactions in eta-carbide-type transition-metal compounds: New class of itinerant-electron frustrated magnets
16:00 Hiroyuki Nakamura*, Takeshi Waki and Yoshikazu Tabata, *Department of Materials Science and Engineering, Kyoto University, Japan*

HJ03 Long-time variation of magnetic structure in (Ce-La)Ir_3Si_2 : Effect of randomness
16:15 Kiyoichiro Motoya[1]*, Taketo Moyoshi[1] and Masaaki Matsuda[2], *[1]Department of Physics, Faculty of Science and Technology, Tokyo University of Science, Japan; [2]Quantum Condensed Matter Division, Oak Ridge National Laboratory, USA*

HJ04 Influence of symmetry on Sm magnetism studied in $SmIr_2Si_2$ polymorphs
16:30 Michal Valiska*, Jiri Pospisil, Martin Divis, Jan Prokleska and Vladimir Sechovsky, *DCMP, Charles University, Ke Karlovu 5, 121 16, Prague, Czech Republic*

HJ05 Unconventional thermal expansion of $BaIrO_3$ investigated by temperature dependent x-ray and neutron diffractions
16:45 Jinwon Jeong[1], Bin Chang[1], Dahee Jung[1], Han-jin Noh[1]* and Seongsu Lee[2], *[1]Department of Physics, Chonnam National University, Korea; [2]Korea Atomic Energy Research Institute, Korea*

IA: Non-fermi liquids and quantum phase transitions III

July 12 (Thu), 17:20~18:50, Room101~3 (1F)

Chairperson: J. W. Allen (University of Michigan, USA)

IA01 A quantum phase transition hidden beneath the superconducting dome of iron-pnictides
17:20 Yuji Matsuda, *Physics, Kyoto University, Japan*

IA02 Re-entrant quantum criticality in pressurized Yb_2Pd_2Sn and $Yb_2Pd_2In_{1-x}Sn_x$
17:50 Tahir Rao Khan[1], Herwig Michor[1], Ernst Bauer[1]*, Rustem Khasanov[2], Alex Amato[3], Veljko Zlatic[4], Ivica Aviani[4], Mydeen Kamal[5], Michael Nicklas[5] and Mauro Giovannini[6], *[1]Institute of Solid State Physics, Vienna University of Technology, Austria; [2]Laboratory for Muon-Spin Spectroscopy, Paul Scherrer Institute, Switzerland; [3]Laboratory for Muon-Spin Spectroscopy, PSI, Paul Scherrer Institute, Switzerland; [4]Institute of Physics, Zagreb, Croatia; [5]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; [6]Dipartimento di Chimica e Chimica Industriale, University of Genova, Italy*

IA03 Coupled fermi-bose renormalization group flow for a two-flavor spin-fermion model close to its antiferromagnetic quantum critical point
18:05 Junhyun Lee, Philipp Strack and Subir Sachdev*, *Department of Physics, Harvard University, USA*

IA04 Magnetism and filling-controlled mott transition in strongly spin-orbit-coupled iridium oxide
18:20 Kenya Ohgushi[1]*, Jun-ichi Yamaura[1], Hiroyuki Ohsumi[2], Soshi Takeshita[2], Hidenori Takagi[3], Taka-hisa Arima[3] and Yutaka Ueda[1], *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]RIKEN SPring-8 Center, Japan; [3]University of Tokyo, Japan*

IA05 Magnetic field tuned QCP in YbPtBi
18:35 E. D. Mun[1], H. Kim[1], M. A. Tanatar[1], G. M. Schmiedeshoff[2], J. H. Park[3], T. Murphy[3], N. Dilley[4], S. L. Bud'ko[1]*, R. Prozorov[1] and P. C. Canfield[1], *[1]Ames Laboratory/Iowa State University, Ames, IA, USA; [2]Occidental College, Los Angeles, CA, USA; [3]NHMFL, Tallahassee, FL, USA; [4]Quantum Design Inc., San Diego, CA, USA*

IB: [Symposium] High performance soft magnetic materials and their applications II

July 12 (Thu), 17:20~18:50, Room 106~8 (1F)

Chairperson: Kyung-Ho Shin (KIST, Korea)

IB01 Field-annealed Fe-Ni-Nb-B amorphous and nanocrystalline alloys for magnetic sensor applications
17:20 Marek Varga[1], Jozef Marcin[1], Marek Capik[1], Jozef Kovac[1], Peter Svec[2] and Ivan Skorvanek[1]*, *[1]Institute of Experimental Physics SAS, Kosice, Slovak; [2]Institute of Physics SAS, Bratislava, Slovakia*

IB02 Amorphous and nanocrystalline magnetic materials: Research and production in china
17:50 Shaoxiong Zhou, *China Central Iron and Steel Research Institute Group, Advanced Technology and Materials Co., Ltd., China*

IB03 Recent status of soft magnetic material applications for renewable energy and eco-friendly vehicle
18:20 In-bum Jeong, *Changsung Corporation, Korea*

IC: Magnetic phase transition

July 12 (Thu), 17:20~18:50, Room 104~5 (1F)

Chairperson: Eugenio Coronado (University of Valencia, Spain)

IC01 Random fields in molecular magnets
17:20 Myriam P. Sarachik*, *Physics Department, City College of New York-CUNY, New York, NY 10031, USA*

IC02 Stability of incommensurate field-induced magnetic order via site-disorder
17:50 Francesco Casola[1]*, Toni Shiroka[1], Shuang Wang[2], Christian Rüegg[3], Henrik Moodysson Rønnow[2], Michael Grbić[4], Mladen Horvatić[4], Steffen Krämer[4], Sutirtha Mukhopadhyay[4], Claude Berthier[4], Hans Rudolf Ott[1] and Joël Mesot[5], *[1]Laboratorium für Festkörperphysik, ETH Hönggerberg, CH-8093 Zürich, Switzerland; [2]Laboratory for Quantum Magnetism, Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland; [3]Laboratory for Neutron Scattering, Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland; [4]Laboratoire National des Champs Magnétiques Intenses, LNCMI - CNRS (UPR3228), UJF, UPS and INSA, BP 166, 38042 Grenoble Cedex 9, France; [5]Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland*

IC03 Low-temperature heat transport and field-induced quantum phase transitions of spin gapped quantum magnets
18:05 X. F. Sun[1]*, C. Fan[1], L. M. Chen[2], W. P. Ke Ke[1], Z. Y. Zhao[1] and X. M. Wang[1], *[1]Hefei National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China, China; [2]Department of Physics, University of Science and Technology of China, China*

IC04 Review talk about spin superfluidity
18:20 Yury Bunkov, *Institut NEEL, France*

IC05 The spin-1/2 Heisenberg antiferromagnetic chain experimental confirmation of 2 and 4 spinon terms
18:35 Bella Lake[1]*, D. Alan Tennant[1], Jean-sebastien Caux[2] and Christopher D Frost[3], *[1]Helmholtz Zentrum Berlin fur Materialien und Energie, Germany; [2]Instituut voor Theoretische Fysica, Universiteit van Amsterdam, Netherlands; [3]ISIS Facility, Rutherford Appleton Laboratory, United Kingdom*

ID: Vortex dynamics II

July 12 (Thu), 17:20~18:50, Room 109~10 (1F)

Chairperson: Guido Meier (Universität Hamburg, Gernamy)

ID01 X-ray microscopy of nanoscale spin dynamics
17:20 Peter Fischer, *CXRO, LBNL, USA*

ID02 Non linear spin transfer induced vortex dynamics
17:50 V. Cros[1], A. Dussaux[1], P. Bortolotti[1], E. Grimaldi[1], J. Grollier[1], A.v. Khvalkovskiy[2], K.a Zvezdin[3], A. Fukushima[4], H. Kubota[4], K. Yakushiji[4], S. Yuasa[4], K. Ando4 and A. Fert[1], *[1]Unite Mixte de Physique CNRS/Thales, France; [2]Unite Mixte de Physique CNRS/Thales and A.M. Prokhorov GPI, Moscow and Istituto P.M., Torino, France; [3]Istituto P.M., Torino, and A.M. Prokhorov GPI, Moscow, Russia, Italy; [4]AIST, Tsukuba, Japan*

ID03 Study of spin transfer induced coupled vortices dynamics in a single spin-valve
18:20 Nicolas Locatelli[1], Paolo Bortolotti[1], Alexey Khvalkovskiy[2], Grisha Avanesyan[3], Vladimir V. Naletov[4], Julie Grollier[1], Gregoire De Loubens[4], Konstantin Zvezdin[3], Olivier Klein[4], Vincent Cros[1]* and Albert Fert[1], *[1]Unite Mixte de Physique CNRS-Thales et Univ Paris-Sud, Palaiseau, France; [2]Grandis Inc, Milpitas, CA, USA; [3]A.M. Prokhorov General Physics Institute of RAS, Moscow, Russia; [4]Service de Physique de l'Etat Condense, CEA, Gif-sur-Yvette, France*

ID04 Collective excitation of magnetostatically coupled two-adjacent magnetic vortices and their relative phase difference
18:35 Hiroaki Fujimori[1], Yasuhiro Niimi[1], Satoshi Sugimoto[1], Shinya Kasai[2] and Yoshichika Otani[1]*, *[1]ISSP, University of Tokyo, Japan; [2]National Institute for Material Science, Japan*

IE: Domain wall motion II

July 12 (Thu), 17:20~18:50, Room 201 (2F)

Chairperson: M. Stiles (National Institute of Standards and Technology, USA)

IE01 Spin-orbit coupling induced spin torques in diluted magnetic semiconductors
17:20 Hang Li, Fatih Dogan and Aurelien Manchon*, *King Abdullah University of Science and Technology, Saudi Arabia*

IE02 Spin orbit torque assisted domain wall depinning in Pt/Co/Pt
17:35 Elena Mure*, Pascal P. Haazen, Jeroen H. Franken, Henk J. Swagten and Bert Koopmans, *Eindhoven University of Technology, Netherlands*

IE03 Piezo-electric control of the motion of a single domain wall
17:50 Elisa De Ranieri[1], Pierre Roy[1], Dong Fang[1], Erin Vehsthedt[2], Andrew C. Irvine[3], Dominik Heiss[3], Richard Campion[4], Tomas Jungwirth[5] and Joerg Wunderlich[6]*, *[1]Hitachi Cambridge Laboratory, JJ Thomson Avenue, Cambridge, CB3 0HE, UK, United Kingdom; [2]Department of Physics, Texas A&M University, College Station, Texas 77843-4242, USA; [3]Microelectronics Group, Cavendish Laboratory, University of Cambridge, JJ Thomson Avenue, Cambridge, United Kingdom; [4]School of Physics and Astronomy, University of Nottingham, United Kingdom; [5]Institute of Physics ASCR, v.v.i., Cukrovarnicka ¥ 10, 162 53 Praha 6, Czech Republic; [6](a) Hitachi Cambridge Lab, Cambridge, UK (b) Institute of Physics ASCR, Prague, Czech Republic, United Kingdom*

IE04 Domain wall manipulation by spin currents in magnetic tunnel junctions
18:20 Julie Grollier[1], Peter Metaxas[1], Joao Sampaio[1], Rie Matsumoto[1], Andre Chanthbouala[1], Alexey Khvalkovskiy[1], Vincent Cros[1], Abdelmadjid Anane[1], Albert Fert[1], Konstantin Zvezdin[2], Akio Fukushima[3], Hitoshi Kubota[3], Kay Yakushiji[3] and Shinji Yuasa[3], *[1]Unite Mixte de Physique CNRS/Thales, France; [2]Istituto P.M. s.r.l., Italy; [3]National Institute of Advanced Industrial Science and Technology, Japan*

IF: Magnetic tunnel junctions

July 12 (Thu), 17:20~18:50, Room 202 (2F)

Chairperson: J. Moodera (Massachusetts Institute of Technology, USA)

IF01 Large magnetoresistance in antiferromagnet tunnel junctions
17:20 Byong-guk Park[1]*, Joerg Wunderlich[2], X. Marti[3], J. Hayakawa[4], H. Takahashi[2] and T. Jungwirth[5], *[1]Material Science and Technology, KAIST, Korea; [2]Hitachi Cambridge Laboratory, United Kingdom; [3]Faculty of Mathematics and Physics, Charles University, Czech Republic; [4]Hitachi Central Laboratory, Japan; [5]Institute of Physics, ASCR, Czech Republic*

IF02 A first-principles study on spin-dependent tunneling conductance in magnetic tunnel junctions with spinel-type $MgAl_2O_4$ barrier
17:50 Yoshio Miura[1]*, Shingo Muramoto[2], Kazutaka Abe[1] and Masafumi Shirai[1], *[1]RIEC & CSIS, Tohoku University, Japan; [2]RIEC, Tohoku University, Japan*

IF03 Enhanced tunnel magnetoresistance in magnetic tunnel junctions with an epitaxial Mg-Al-O barrier
18:05 Hiroaki Sukegawa, Seiji Mitani, Tomohiko Niizeki, Tadakatsu Ohkubo, Koichiro Inomata and Kazuhiro Hono, *Magnetic Materials Unit, National Institute for Materials Science (NIMS), Japan*

IF04 The memristive magnetic tunnel junction as a nanoscopic synapse-neuron system
18:20 Andy Thomas, Patryk Krzysteczko, Gunter Reiss, Jana Munchenberger and Markus Schafers, *Physics, Bielefeld University, Germany*

IF05 Tunnel magnetoresistance in perpendicularly magnetized Co_2FeAl/MgO/CoFeB magnetic tunnel junctions
18:35 Zhenchao Wen*, Hiroaki Sukegawa, Shinya Kasai, Masamitsu Hayashi, Seiji Mitani and Koichiro Inomata, *National Institute for Materials Science (NIMS), Japan*

IG: Valence fluctuations II

July 12 (Thu), 17:20~18:50, Room 203 (2F)

Chairperson: Ernst Bauer (Vienna University of Technology, Austria)

IG01 Transport anomalies due to critical valence fluctuations
17:20 Kazumasa Miyake, *Department of Materials Engineering Science, Osaka University, Japan*

IG02 Fluctuations and quantum criticality in Eu ternary pnictides
17:50 Yuriy Vladimirovich Goryunov[1]* and Alexandr Nikolaevich Nateprov[2], *[1]Russian Academy of Sciences, Kazan Physical-Technical Institute of the Russian Academy of Sciences, Russia; [2]Academy of Sciences of Moldova, Institute of Applied Physics, Moldova*

IG03 Synchrotron x-ray spectroscopy study on the valence state in α- and β-$YbAlB_4$ at low temperatures and high magnetic fields
18:05 Yasuhiro H. Matsuda[1]*, Toshiyuki Nakamura[1], Kentaro Kuga[1], Satoru Nakatsuji[1], Shinji Michimura[2], Toshiya Inami[2], Naomi Kawamura[3] and Masaichiro Mizumaki[3], *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]Japan Atomic Energy Agency, Japan; [3]SPring-8/JASRI, Japan*

IG04 Metal-Insurator crossover accompanied by the dual nature of 5f electrons with localized and itinerant character in US2
18:20 Naoto Metoki[1], Etsuji Yamamoto[2], Hironori Sakai[2], Yoshinori Haga[2], Tatsuma D Matsuda[2] and Shugo Ikeda[2], *[1]QBus, JAEA, Japan; [2]ASRC, JAEA, Japan*

IG05 Valence transition induced by pressure and magnetic field in antiferromagnet $EuRh_2Si_2$
18:35 Akihiro Mitsuda*, Suguru Hamano and Hirofumi Wada, *Department of Physics, Kyushu University, Japan*

IH: Surface and interface effects II

July 12 (Thu), 17:20~18:50, Room 204 (2F)

Chairperson: Seiji Mitani (NIMS, Japan)

IH01 Orbital ordering and multiphase separation at manganite interfaces
17:20 Sergio Valencia[1], Defleft Schmitz[1], Luis Pena[2], Zorica Konstantinovic[2], Lluis Balcells[2], Regina Galceran[2], Felip Sandiumenge[2], Marie-jose Casanove[3] and Benjamin Martinez[2]*, *[1]Helmholtz-Zentrum-Berlin fur Materialien und Energie, BESSY, Germany; [2]Magnetic Materials and Functional Oxides, ICMAB - CSIC, Spain; [3]Centre d'Elaboration de Materiaux et d'Etudes Structurales, CNRS - CEMES, France*

IH02 Conical spin-spiral state in an ultra-thin film driven by higher-order spin interactions
17:35 Yasuo Yoshida[1]*, Silke Schroeder[2], Paolo Ferriani[2], David Serrate[3], Kirsten Von Bergmann[4], Andre Kubetzka[4], Stefan Heinze[2] and Roland Wiesendanger[4], *[1]Institute for solid state physics, The University of Tokyo, Japan; [2]Institute for Theoretical Physics and Astrophysics, Christian-Albrechts-Universitaet zu Kiel, Germany; [3]Instituto de Nanociencia de Aragon, Universidad de Zaragoza, Spain; [4]Institute of Applied Physics, University of Hamburg, Germany*

IH03 Non-collinear magnetic ground state in finite metallic chains
17:50 Matthias Menzel[1]*, Yuriy Mokrousov[2], Robert Wieser[1], Jessica E. Bickel[1], Elena Vedmedenko[1], Stefan Blugel[2], Stefan Heinze[3], Kirsten Von Bergmann[1], Andre Kubetzka[1] and Roland Wiesendanger[1], *[1]Institute of Applied Physics, University of Hamburg, Germany; [2]Forschungszentrum Julich, Germany; [3]Institute of Theoretical Physics and Astrophysics, University of Kiel, Germany*

IH04 Magnetism and the thermodynamics of Fe-Pt surface alloy formed at Pt(110) surface
18:05 Byong Sun Chun, Wondong Kim and Chanyong Hwang*, *Korea Research Institute of Standards and Science, Korea*

IH05 A study of antiferromagnetic/ferromagnetic systems using x-ray magnetic dichroism
18:20 Z. Q. Qiu[1] and Chanyong Hwang[2]*, *[1]Dept. of Physics, University of California at Berkeley, Berkeley, CA 94720, USA; [2]Korea Research Institute of Standards and Science, Yuseong, Daejeon 305-340, Korea*

IH06 Magnetic properties and microscopic structures of ultrathin Co/√3×√3-R30°-Ag/Si(111) films
18:35 Jyh-shen Tsay[1], Tsu-yi Fu[1]*, Chih-kuei Kao[1], Xiao-lan Huang[1], Jyh-ron Shue[1], Wei-hsiang Chen[1] and Yeong-der Yao[2], *[1]physics, National Taiwan Normal University, Taiwan; [2]physics, Academia Sinica, Taiwan*

II: Topological insulators II

July 12 (Thu), 17:20~18:50, Room 205 (2F)

Chairperson: Hu-Jong Lee (POSTECH, Korea)

II01 Giant anomalous Hall effect in magnetic topological insulator
17:20 Qi-kun Xue, *Tsinghua University, China*

II02 A rich rashba system created on the surface of a topological insulator
17:50 Philp King[1]*, A De La Torre[1], Felix Baumberger[1], M. Bianchi[2], R. Hatch[2], Philip Hofmann[2], M.S. Bahramy[3], R. Arita[3], N. Nagaosa[3], J.I. Mi[4], B. Iversen[4] and G. Balakrishnan[5], *[1]School of Physics and Astronomy, University of St Andrews, United Kingdom; [2]Department of Physics and Astronomy, Aarhus University, Denmark; [3]Correlated Electron Research Group, RIKEN-ASI, Japan; [4]Department of Chemistry, Aarhus University, Denmark; [5]Department of Physics, University of Warwick, United Kingdom*

II03 From topological semimetals towards insulators. First-principles study
18:20 Stanislav Chadov[1]*, Claudia Felser[1], Kristina Chadova[2], Diemo Kodderitzsch[2] and Hubert Ebert[2], *[1]Dept. Inorganic Chemistry, Max-Planck-Institute for Chemical Physics of Solids, Dresden, Germany; [2]Dept. Chemistry and Biochemistry, Ludwig Maximilians University, Munich, Germany*

II04 Engineering and manipulating topological qubits in 1D quantum wires
18:35 Panagiotis Kotetes[1], Alexander Shnirman[2] and Gerd Schon[1], *[1]Institut fur Theoretische Festkorperphysik, Karlsruhe Institute of Technology, Germany; [2]Institut fur Theorie der Kondensierten Materie, Karlsruhe Institute of Technology, Germany*

IJ: Ferrites and other materials

July 12 (Thu), 17:20~18:50, Room 206 (2F)

Chairperson: J. P. Attfield (University of Edinburgh, UK)

IJ01 Magnetic structure of iron borate $SmFe_3(BO_3)_4$: A neutron diffraction study
17:20 Clemens Ritter[1]*, Anatolii Pankrats[2], Irina Gudim[2] and Alexander Vorotynov[2], *[1]Institut Laue Langevin, Boite Postale 156, F-38042 Grenoble, France; [2]Kirenskii Institute of Physics, Siberian Branch of RAS, Krasnoyarsk, 660036, Russia*

IJ02 Preparation and characterization of $Sr_3Fe_2O_{7-x}$ for different oxygen contents
17:35 Darren Peets[1]*, Junghwa Kim[1], Andrey Maljuk[2], Chengtian Lin[1] and Bernhard Keimer[1], *[1]Max-Planck-Institut fur Festkorperforschung, Germany; [2]IFW Dresden, Helmholtzstr. 20, D-01069 Dresden, Germany*

IJ03 The magnetic structures of $CoPS_3$ and $NiPS_3$
17:50 Andrew Wildes[1]*, Virginie Simonet[2], Garry Mcintyre[3], Eric Ressouche[4], Emmanuelle Suard[1], Giulio Pepe[5], Maxim Avdeev[3] and Trevor Hicks[6], *[1]Institut Laue-Langevin, 6 rue Jules Horowitz, BP 156, 38042 Grenoble, France; [2]Institut Neel, 25 avenue des Martyrs, BP 166, 38042 Grenoble cedex 9, France; [3]Bragg Institute, ANSTO, Locked Bag 2001, Kirrawee DC NSW 2232, Australia; [4]INAC/SPSMS-MDN, CEA/Grenoble, 17 rue des Martyrs, 38054 Grenoble Cedex 9, France; [5]Department of Physics & Astronomy, University College London, Gower Street, London, WC1E 6BT, United Kingdom; [6]School of Physics, Monash University, PO Box 27, Vic 3800, Australia*

IJ04 Magnetic properties in Fe-doped $LnCo_{1-x}Fe_xAsO$ (Ln=La, Sm) systems
18:05 Yuke Li[1], Chenyi Shen[2], Yongkang Luo[2], Chen Lv[2], Qian Tao[2], Jianhui Dai[1], Guanghan Cao[2] and Zhuan Xu[2]*, *[1]Department of Physics, Hangzhou Normal University, China; [2]Department of Physics, Zhejiang University, China*

IJ05 Symmetry argument of cyano-bridged copper-molybdenum complexes
18:20 Jun Ohara* and Shoji Yamamoto, *Department of Physics, Hokkaido University, Japan*

IJ06 Phase diagram of the dzyaloshinskii-moriya helimagnet $Ba_2CuGe_2O_7$ in canted magnetic fields
18:35 Sebastian Clemens Muehlbauer[1]*, Severian Gvasaliya[2], Eric Ressouche[3], Ekaterina Pomjakushina[4] and Andrey Zheludev[2], *[1]Neutron Scattering and Magnetism Group, Laboratory for Solid State Physics, ETH Zurich, Switzerland; [2]Neutron Scattering and Magnetism Group, Laboratory for Solid State Physics, ETH Zurich, Switzerland; [3]INAC/SPSMS-MDN, CEA/Grenoble, France; [4]Laboratory for Developments and Methods, Paul Scherrer Institute, Switzerland*

JA: Superconductivity VI - Fe-based and other superconductors

July 13 (Fri), 09:00~10:30, Room101~3 (1F)

Chairperson: T. Tohyama (Kyoto University, Japan)

JA01 Close relationship between superconductivity and the bosonic mode in $Ba_{0.6}K_{0.4}Fe_2As_2$: A pairing glue for superconductivity
09:00 Hai-hu Wen*, *Nanjing University, China*

JA02 Broken time-reversal symmetry superconducting state in LiFeAs
09:30 Gang Li[1], Ricardo R. Urbano[1], C. Tarantini[2], Bin Lv[3], Phil Kuhns[1], Arneil P. Reyes[1], David Larbalestier[2], Alexander Gurevich[4], Ching-wu Chu[3] and Luis Balicas[1]*, *[1]Condensed Matter Sciences, NHMFL, USA; [2]Center for Applied Superconductivity, NHMFL, USA; [3]Texas Center for Superconductivity, University of Houston Houston, Texas, USA; [4]Physics Dept., Old Dominion University, USA*

JA03 Observation of anomalous magneto-resistance behavior near the in-plane upper critical field in $Sr(Fe,Ni)_2As_2$ single crystals
09:45 Seunghyun Khim[1], Bumsung Lee[1], Ki-young Choi[1], Kyung Jun Yoo[1], Ji Hoon Shim[2] and Kee Hoon Kim[1]*, *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]Department of Chemistry, Pohang University of Science and Technology, Korea*

JA04 Superconductivity in an Einstein solid: $A_xV_2Al_{20}$ (A = Ga, Al)
10:00 Atsuhi Onosaka, Junichi Yamaura, Yoshihiko Okamoto and Zenji Hiroi*, *ISSP, University of Tokyo, Japan*

JA05 Non-unitary triplet pairing in the centrosymmetric superconductor $LaNiGa_2$
10:15 Adrian Hillier[1]*, Jorge Quintanilla[2], Bayan Mazidian[3], James Annett[4] and Robert Cywinski[5], *[1]ISIS facility, STFC, Oxfordshire, United Kingdom; [2]SEPnet and Hubbard Theory Consortium, School of Physical Sciences, University of Kent, Canterbury CT2 7NH, United Kingdom; [3]H. H. Wills Physics Laboratory, University of Bristol, Tyndall Avenue, Bristol BS8 1TL, United Kingdom; [4]H. H. Wills Physics Laboratory, University of Bristol, Tyndall Avenue, Bristol BS8 1TL, United Kingdom; [5]School of Applied Sciences, University of Huddersfield, Queensgate, Huddersfield, HD1 3DH, United Kingdom*

JB: Multiferroics IV - noncollinear magnets

July 13 (Fri), 09:00~10:30, Room 106~8 (1F)

Chairperson: Kee Hoon Kim (Seoul Natonal University, Korea)

JB01 Magnetoelectric effects and related phenomena in non-collinear spiral-spin systems
09:00 Tsuyoshi Kimura, *Osaka University, Japan*

JB02 Electric field control of nonvolatile four-state magnetization at room temperature
09:30 Sae Hwan Chun[1], Yisheng Chai[1], Byung-gu Jeon[1], Hyung Joon Kim[1], Yoon Seok Oh[1], Ingyu Kim[1], Hanbit Kim[1], Byeong Jo Jeon[1], So Young Haam[1], Ju-young Park[1], Suk Ho Lee[1], Jae-ho Chung[2], Jae-hoon Park[3] and Kee Hoon Kim[1]*, *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]Department of Physics, Korea University, Korea; [3]Department of Physics and Division of Advanced Materials Science, POSTECH, Korea*

JB03 Low magnetic field reversal of electric polarization in Y-type hexaferrites
09:45 Fen Wang, Tao Zou, Li-qin Yan, Yi Liu and Young Sun*, *Institute of Physics, Chinese Academy of Sciences, China*

JB04 Nearest - next-nearest neighbor exchange frustrated quantum chain antiferromagnets: Recent results
10:00 Reinhard Kremer*, *MPI for Solid State Research, Stuttgart, Germany*

JB05 Multiferroic properties of layered triangular compounds
10:15 Francoise Damay[1], Christine Martin[2], Maria Poienar[2], Gilles Andre[1], Sylvain Petit[1], Julien Robert[1], Vincent Hardy[2] and Antoine Maignan[2], *[1]Laboratoire Leon Brillouin, CEA-CNRS UMR 12, 91191 GIF-SUR-YVETTE CEDEX, France; [2]Laboratoire CRISMAT, CNRS UMR 6508, 6 bvd Marechal Juin, 14050 CAEN CEDEX, France*

JC: Heavy fermions IV

July 13 (Fri), 09:00~10:30, Room 104~5 (1F)

Chairperson: S. Nakatsuji (University of Tokyo, Japan)

JC01 STM and magnetotransport investigations on the heavy fermion metals $YbRh_2Si_2$ and $CeMIn_5$ (M = Co, Ir)
09:00 Steffen Wirth[1]*, Andrea Bianchi[2], Stefan Ernst[1], Christoph Geibel[1], Zachary Fisk[3], Stefan Kirchner[4], Cornelius Krellner[1], Joe D Thompson[5] and Frank Steglich[1], *[1]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; [2]Departement de Physique, Universite de Montreal, Quebec H3C 3J7, Canada; [3]University of California, Irvine, California 92697, USA; [4]Max Planck Institute for Physics of Complex Systems, Germany; [5]Los Alamos National Laboratory, Los Alamos, New Mexico 87545, USA*

JC02 Fermi surface of URu_2Si_2 in the hidden order state and in the antiferromagnetic state
09:30 Elena Hassinger, Georg Knebel, Dai Aoki, Frederic Bourdarot, Liam Malone, Tatsuma Matsuda, Valentin Taufour and Jacques Flouquet, *INAC/ CEA Grenoble, France*

JC03 Switching of magnetic ordering near the quantum critical point of the heavy fermion superconductor $CeRhIn_5$
10:00 Hyun Jung Lee[1]* and Tetsuya Takimoto[2], *[1]School of Physics, Korea Institute for Advanced Study, Seoul, Korea; [2]Asia Pacific Center for Theoretical Physics, POSTECH, Pohang, Korea*

JC04 Resonant magnetic exciton mode in the heavy-fermion antiferromagnet CeB_6
10:15 Gerd Friemel[1], Yuan Li[1], A. Dukhnenko[2], N. Yu. Shitsevalova[2], N. E. Sluchanko[3], Alexandre Ivanov[4], V. B. Filipov[2], Bernhard Keimer[1] and Dmytro Inosov[1]*, *[1]Max Planck Institute for Solid State Research, Stuttgart, Germany; [2]I. M. Frantsevich Institute for Problems of Material Sciences of NAS, Kiev, Ukraine; [3]A. M. Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia; [4]Institut Laue-Langevin, Grenoble, France*

JD: Magnetism theory / Simulation of quantum and classical systems

July 13 (Fri), 09:00~10:30, Room 109~10 (1F)

Chairperson: Unjong Yu (GIST, Korea)

JD01 Magnetostriction to 97.4T in frustrated Shastry-Sutherland compound $SrCu_2(BO_3)_2$
09:00 Marcelo Jaime[1]*, Ramzi Daou[2], Scott A Crooker[1], Franziska Weickert[3], Atsuko Uchida[1], Adrian Feiguin[4], Cristian D Batista[5], Hanna A Dabkowska[6] and Bruce D Gaulin[7], *[1]NHMFL, Los Alamos National Laboratory, Los Alamos, New Mexico 87544, USA; [2]Max Planck Institute for Chemical Physics of Solids, 01187 Dresden, Germany; [3]MPA-CMMS, MPA-CMMS, Los Alamos National Laboratory, Los Alamos, New Mexico 87544, USA; [4]Department of Physics & Astronomy, University of Wyoming, Laramie, Wyoming 82071, USA; [5]Theory Division, Los Alamos National Laboratory, Los Alamos, New Mexico 87544, USA; [6]Brockhouse Institute for Materials Research, McMaster University, Hamilton, ON, L8S 4M1, Canada; [7]Department of Physics & Astronomy, McMaster University, Hamilton, ON, L8S 4M1, Canada*

JD02 Unconventional spin-glass behaviors in pyrochlore Heisenberg antiferromagnets coupled with lattice distortions
09:15 Hiroshi Shinaoka[1], Yusuke Tomita[2] and Yukitoshi Motome[3], *[1]Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan; [3]Department of Applied Physics, University of Tokyo, Japan*

JD03 Theory of spin liquids in integer spin pyrochlores
09:30 Sungbin Lee[1]*, Shigeki Onoda[2] and Leon Balents[3], *[1]University of California, Santa Barbara, USA; [2]Condensed matter theory Laboratory, RIKEN, Japan; [3]Kavli Institute for Theoretical Physics, University of California, Santa Barbara, USA*

JD04 Field-induced spin nematic and spin density wave orders in spatially anisotropic frustrated magnets
09:45 Masahiro Sato[1], Toshiya Hikihara[2] and Tsutomu Momoi[3], *[1]Department of Physics and Mathematics, Aoyama Gakuin University, Japan; [2]Faculty of Engineering, Gunma University, Japan; [3]Condensed Matter Theory Laboratory, RIKEN, Japan*

JD05 Spin liquids for spin 1/2 systems with strong charge fluctuation on the triangular lattice
10:00 Eun-gook Moon and Cenke Xu, *Physics, UCSB, USA*

JD06 Emergent criticalities and phase transitions in monomer-dimer mixture system on a honeycomb lattice
10:15 Hiromi Otsuka*, *Department of Physics, Tokyo Metropolitan University, Japan*

JE: Domain wall motion III

July 13 (Fri), 09:00~10:30, Room 201 (2F)

Chairperson: T. Ono (Kyoto University, Japan)

JE01 Domain-wall physics and devices using focused electron and ion beams
09:00 Henk Swagten*, Jeroen Franken, Christian Geurts, Mark Van Der Heijden, Mark Hoeijmakers, Tim Ellis, Elena Mure, Beatriz Barcones, Juergen Kohlhepp and Bert Koopmans, *Applied Physics, Eindhoven University of Technology, Netherlands*

JE02 Real time analysis of spinmotive forces due to domain wall motion
09:15 Jun'ichi Ieda*, Yuta Yamane and Sadamichi Maekawa, *Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

JE03 Spin-current induced magnetization dynamics
09:30 Mathias Klaui, *Institute of Physics, Johannes Gutenberg-Universitaet Mainz, Germany*

JE04 External magnetic field dependence of the magnetic wall drive current density in a TbFeCo magnetic nanowire
10:00 Hiroyuki Awano, Ryo Eguchi, Toma Kanehira and Do Bang, *Toyota Technological Institute, Japan*

JF: Metal spintronics III

July 13 (Fri), 09:00~10:30, Room 202 (2F)

Chairperson: H. Yang (National University of Singapore, Singapore)

JF01 Disentangling and manipulating intrinsic and extrinsic contributions in the anomalous hall effect
09:00 Xiaofeng Jin*, *Physics Department, Fudan University, China*

JF02 Spinmotive forces in spin-orbit coupling systems
09:30 Yuta Yamane*, Jun'ichi Ieda and Sadamichi Maekawa, *Japan Atomic Energy Agency, Japan*

JF03 Theory of the spin Hall effect in ferromagnetic metals: Nonlinear behaviors around the curie temperature
09:45 Bo Gu[1]*, Timothy Ziman[2] and Sadamichi Maekawa[1], *[1]Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [2]CNRS and Institut Laue Langevin, France*

JF04 Minority band gap and magnetic properties of $Co_2(Fe,Mn)Z$ (Z=Al, Ga ; Si, Ge) in the context of CPP-GMR transport
*Withdrawn
Faleev Sergey and Oleg N. Mryasov*, *Physics and Astronomy and MINT Center, Physics and Astronomy and MINT Center, USA*

JF05 Anisotropy in the intrinsic anomalous Hall effect
10:00 Lin Wu, Yufan Li, Jianli Xu and Xiaofeng Jin*, *Surface Physics Laboratory and Physics Department, Fudan University, China*

JG: Spin waves II

July 13 (Fri), 09:00~10:30, Room 203 (2F)

Chairperson: Russell Cowburn (University of Cambridge, UK)

JG01 Propagation and scattering of spin waves in curved magnonic waveguides
09:00 Vira Tkachenko[1], Andriy Kuchko[1], Mykola Dvornik[2] and Volodymyr Kruglyak[2]*, *[1]Donetsk National University, Ukraine; [2]University of Exeter, United Kingdom*

JG02 Theory of static and dynamic properties of magnetic dot arrays coupled by dipole-dipole interaction
09:15 Roman Verba[1], Gennady Melkov[1], Vasil Tiberkevich[2] and Andrei Slavin[2]*, *[1]Radiophysics, Kiev National University, Ukraine; [2]Physics, Oakland University, USA*

JG03 Theoretical study on ferromagnetic resonance of FePt/Py bilayers
09:30 Hiroshi Imamura[1], Takeshi Seki[2], Kazuhisa Utsumiya[2], Yukio Nozaki[3] and Koki Takanashi[2], *[1]NRI-AIST, Japan; [2]IMR, Tohoku Univ., Japan; [3]Keio Univ., Japan*

JG04 NMR observations of level crossings in a Cr_8F_8 pivalate single crystal: The solution to the structured enhancement of 1/T1
09:45 Shoji Yamamoto*, *Department of Physics, Hokkaido University, Japan*

JG05 Spin state of ferric chloride investigated by Fe NMR
10:00 Byeongki Kang, Changsoo Kim, Euna Jo, Sangil Kwon and Soonchil Lee*, *Physics, KAIST, Korea*

JG06 Spin dynamics of ferrite nanoparticles studied by 57Fe Mossbauer spectroscopy
10:15 Mathias Kraken[1]*, Jochen Litterst[1], Ilka Marina Grabs[2], Ingke Christine Masthoff[2] and Georg Garnweitner[2], *[1]IPKM, TU Braunschweig, Germany; [2]IPAT, TU Braunschweig, Germany*

JH: Nanostructured and composite hard magnetic materials

July 13 (Fri), 09:00~10:30, Room 204 (2F)

Chairperson: Masaki Nakano (Nagasaki University, Japan)

JH01 Multi-layered nanocomposite thick film-magnet for power MEMS applications
09:00 Hirotoshi Fukunaga[1]*, Masaki Nakano[1], Takeshi Yanai[1] and Fumitoshi Yamashita[2], *[1]Graduate School of Engineering, Nagasaki University, Japan; [2]Rotary Component Technology Development Division, Minebea Co., Ltd., Japan*

JH02 Development of high performance micron-scaled hard magnetic structures for micro-system applications
09:30 Nora Dempsey, F. Dumas-bouchiat, Y. Zhang, G. Ciuta, L. F. Zanini and D. Givord, *Institut Neel CNRS/UJF, France*

JH03 Exchange spring magnet for rare earth free permanent magnet
10:00 Dongyoo Kim and Jisang Hong*, *Department of Physics, Pukyong National University, Korea*

JH04 Prediction of maximum energy product for exchange coupled core-shell nanomagnets
10:15 Jihoon Park[1], Yang-ki Hong[1]*, Jaejin Lee[1], Jeevan Jalli[2], Gavin Sky Abo[1], Woncheol Lee[1], Chul-jin Choi[3] and Junggoo Lee[3], *[1]Department of Electrical and Computer Engineering and MINT Center, The University of Alabama, Tuscaloosa, Alabama 35487, USA; [2]Schweitzer Engineering Laboratories, 2350 NE Hopkins Court, Pullman, Washington 99163, USA; [3]Korea Institute of Materials Science, Changwon, Kyungsangnam-do, Korea*

JI: Strong magnetic anisotropy materials

July 13 (Fri), 09:00~10:30, Room 205 (2F)

Chairperson: George C. Hadjipanayis (University of Delaware, USA)

JI01 Ferromagnetic properties of Co-Pd-$SrTiO_3$ alloy films with high magnetic anisotropy
09:00 Yiwen Zhang[1]*, Syousuke Fukushi[1], Hanae Kijima[1], Nobukiyo Kobayashi[2], Atsushi Yokoi[2], Shigehiro Ohnuma[2] and Hiroshi Masumoto[1], *[1]Center for Interdisciplinary Research, Tohoku University, Japan; [2]Research Institute for Electromagnetic Materials, Japan*

JI02 Effect of change in thickness on the structural and magnetic properties of L10-ordered FePd films with (001) texture
09:15 Jungho Ko, Taejin Bae and Jongill Hong*, *Materials science and engineering, Yonsei Univ., Korea*

JI03 Mechanism of large magnetic anisotropy of thin film m-DO19 Fe_3Pt and analogous 3d-5d compounds
*Withdrawn
Oleg Mryasov* and Takao Suzuki, *Materials for Information Technology (MINT) Center, University of Alabama, USA*

JI04 Fabrication of highly ordered L10 type FePt thin films by rapid thermal annealing
09:30 Masaki Mizuguchi*, Takashi Sakurada and Koki Takanashi, *Institute for Materials Research, Tohoku University, Japan*

JI05 09:45 **Competing intrinsic and side-jump anomalous Hall effects in Isoelectric L10 FePtPd ternary alloy films**
Pan He[1], Li Ma[1], Zhong Shi[1], Guan Yu Guo[2] and Shiming Zhou[1]*, *[1]Department of Physics, Tongji University, China; [2]Department of Physics and Center for Theoretical Sciences, National Taiwan University, Taiwan*

JI06 10:00 **Effect of deposition temperature on the crystallographic structure and first-order magnetic phase transition of FeRh thin films on glass substrate**
Wei Lu[1], Chenchong He[2], Zhe Chen[2] and Biao Yan[2], *[1]School of Materials Science and Engineering, Tongji University, Shanghai, China; [2]Tongji University, China*

JJ: Magnetocaloric effects / Magnetoelastic materials

July 13 (Fri), 09:00~10:30, Room 206 (2F)

Chairperson: Claudia Felser (Max Planck Institute for Chemical Physics of Solids, Germany)

JJ01 09:00 **Some new physics and magnetism of rare earth-rich R_5T_4 and R_5T_3 compounds**
Vitalij Pecharsky[1]*, Yaroslav Mudryk[2], Durga Paudyal[2] and Karl Gschneidner, Jr.[1], *[1]Ames Laboratory and Department of Materials Science and Engineering, Iowa State University, USA; [2]Ames Laboratory, Iowa State University, USA*

JJ02 09:30 **Morphotropic phase boundary in ferromagnets - A way leading to large magnetostriction**
Sen Yang[1]*, Xiaobing Ren[2] and Xiaoping Song[1], *[1]Department of Materials Physics, Xi'an Jiaotong University, China; [2]National Institute for Materials Science, Japan*

JJ03 09:45 **Magnetostriction in geometrically frustrated $Co_3V_2O_8$ single crystals**
Ryszard Zuberek[1], Ritta Szymczak[1], Jan Fink- Finowicki[1], Victor Nizhankovskii[2] and Henryk Szymczak[1], *[1]Institute of Physics Polish Academy of Sciences, Warsaw, Poland; [2]International Laboratory of High Magnetic Fields and Low Temperatures, Wroclaw, Poland*

JJ04 10:00 **Magneto-volume anomalies and low-temperature inverse magneto-caloric effect in Er_2Fe_{17}**
Pablo Alvarez[1], Pedro Gorria[1]*, Jose Luis Sanchez Llamazares[2], Jorge Sanchez Marcos[3], Gabriel Cuello[4], Ines Puente-orench[5], Gaston Garbarino[6], Imanol De Pedro[7], Jesus Rodriguez Fernandez[7] and Jesus A. Blanco[1], *[1]Department of Physics, University of Oviedo, c/ Calvo Sotelo, s/n, 33007 Oviedo, Spain; [2]Division de Materiales Avanzados, IPCyT, Camino a la presa San Jose 2055, 78216, San Luis Potosi, Mexico; [3]Instituto de Ciencia de Materiales de Madrid, CSIC, Cantoblanco, 28049 Madrid, Spain; [4]Institute Laue Langevin, 6 rue Jules Horowitz, 38042 Grenoble, France; [5]Instituto de Ciencia de Materiales de Aragon, CSIC-Univ. Zaragoza, 50009 Zaragoza, Spain; [6]European Synchrotron Radiation Facility, BP 220, 6 rue Jules Horowitz, 38043 Grenoble, France; [7]Department CITIMAC, University of Cantabria, 39005 Santander, Spain*

JJ05 10:15 **Neutron diffraction study of rare-earth compound Ho_5Pd_2 with large magnetocaloric effect**
Hideaki Kitazawa[1], Yukihiko Kawamura[2], Noriki Terada[1], Hiroaki Mamiya[1], Hiroyuki S Suzuki[1], Andreas Doenni[1], Koji Kaneko[3], Naoto Metoki[3] and Naoki Igawa[3], *[1]Quantum Beam Unit, National Institute for Materials Science, Japan; [2]CROSS-Tokai, Japan; [3]Japan Atomic Energy Agency, Japan*

KA: Kondo systems II

July 13 (Fri), 11:00~12:30, Room101~3 (1F)

Chairperson: Peter Riseborough (Temple University, USA)

KA01 11:00 **Probing the Kondo effect on the atomic scale by mapping the itinerant electrons**
Martin Wenderoth, *University of Gottingen, 4. Physikalisches Institut, Germany*

KA02 11:30 **Coexistence of antiferromagnetic order and hybridization gap in Ce-based kondo semiconductors**
D T Adroja[1]*, T. Takabatake[2], Y. Muro[3], K. Yutani[2], J. Kajino[2], K. Umeo[4], S. Kimura[5], A. D. Hillier[1], D. D. Khalyavin[1] and A. Severing[6], *[1]ISIS Facility, Rutherford Appleton Laboratory, Chilton, OX11 0QX, United Kingdom; [2]Dept. Quantum Matter, AdSM, Hiroshima University, Higashi-Hiroshima, Japan; [3]Liberal Arts and Sciences, Toyama Prefectural University, Imizu, Japan; [4]4N-BARD, Hiroshima University, Higashi-Hiroshima, Japan; [5]UVSOR Facility, Institute for Molecular Science, Okazaki, Japan; [6]Institute of Physics II, University of Cologne, Cologne, Germany*

KA03 12:00 **Kondo scattering investigated by Nernst-effect measurements**
Peijie Sun[1], Christoph Geibel[2] and Frank Steglich[2], *[1]Institute of Physics, Chinese Academy of Science, Beijing 100190, China; [2]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*

KA04 12:15 **Electron spin resonance in antiferro-quadrupolar ordered CeB_6**
Pedro Schlottmann*, *Department of Physics, Florida State University, USA*

KB: Magnetic nanoparticles II

July 13 (Fri), 11:00~12:30, Room 106~8 (1F)

Chairperson: Tae Hee Kim (Ewha Womans University, Korea)

KB01 11:00 **Aligning and measuring the magnetic easy axis direction of superparamagnetic nanoparticles at temperatures much greater than the blocking temperature**
Jean-charles Eloi, Mitsuhiro Okuda, Sarah Ward Jones and Walther Schwarzacher*, *H. H. Wills Physics Laboratory, University of Bristol, United Kingdom*

KB02 11:15 **Exchange-bias in iron-based nanoparticles**
Emeric Folcke[1], Jean-marie Le Breton[1]*, Williams Lefevbre[1], Rodrigue Larde[1] and Jeffrey E Shield[2], *[1]Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France; [2]Nebraska Center for Materials and Nanoscience, University of Nebraska Lincoln, USA*

KB03 11:30 **Photocontrolled magnetism through interface strain in core-shell prussian blue analogues**
Elisabeth S. Knowles[1], Carissa H. Li[2], Matthieu F. Dumont[1], Marcus K. Peprah[1], Daniel R. Talham[2] and Mark W. Meisel[1]*, *[1]Department of Physics and NHMFL, University of Florida, USA; [2]Department of Chemistry, University of Florida, USA*

KB04 11:45 **Confinement effect on the A1 to L10 phase transformation of FePt**
Andrew Gallagher*, Levent Colak, Ozan Akdogan and George Hadjipanayis, *Physics and Astronomy, University of Delaware, USA*

KB05 12:00 **Are small CoPt and FePt nanoparticles mono-L10 domain?**
Florent Tournus[1]*, Kazuhisa Sato[2], Toyohiko J. Konno[2], Thierry Epicier[3] and Veronique Dupuis[1], *[1]LPMCN, CNRS & Univ. Lyon 1, France; [2]Institute for Materials Research, Tohoku University, Japan; [3]MATEIS, CNRS & INSA-Lyon, France*

KB06 12:15 **Magneto-structural correlations in antiferromagnetic and ferrimagnetic nanoparticles**
Nuno Silva[1]*, Vitor S. Amaral[1], Luis D. Carlos[1], Ainhoa Urtizberea[2], Rodney Bustamante[2], Angel Millan[2], Fernando Palacio[2], Erik Kampert[3], Uli Zeitler[3], Sophie De Brion[4], Yuki Komorida[5], Masaki Mito[5], Oscar Iglesias[6], Amilcar Labarta[6], Ines Puente Orench[7] and Javier Campo[7], *[1]Dep. Fisica and CICECO, Universidade de Aveiro, Portugal; [2]Departamento de Fisica de la Materia Condensada and ICMA Universidade de Zaragoza, Spain; [3]Radboud University Nijmegen, High Field Magnet Laboratory, Netherlands; [4]CNRS, Inst. Neel, F-38042 Grenoble 9, France and Univ. Grenoble, Grenoble, France; [5]Faculty of Engineering, Kyushu Institute of Technology, Kitakyushu, Japan; [6]Departament de Fisica Fonamental and Institut de Nanociencia i Nanotecnologia, Univ. Barcelona, Spain; [7]ICMA-CSIC/Univ. Zaragoza, Zaragoza Spain and Institut Laue-Langevin, Grenoble, France, Spain*

KC: Magnetic thin films and nanostructures II

July 13 (Fri), 11:00~12:30, Room 104~5 (1F)

Chairperson: H. Fujimori (Tohoku University, Japan)

KC01 11:00 **360 degree domain walls in various magnetic ring thin films**
Chunghee Nam[1] and Caroline A. Ross[2], *[1]Physics, Hannam University, Korea; [2]Materials Science and Engineering, MIT, USA*

KC02 11:15 **Magneto-optical effect of rare earth doped zinc ferrite thin films prepared using PLD**
Naoki Wakiya[1]*, Tekeshi Misu1, Nobuyasu Adachi[2], Naonori Sakamoto[1], Kazuo Shinozaki[3] and Hisao Suzuki[1], *[1]Shizuoka University, Japan; [2]Nagoya Institute of Technology, Japan; [3]Tokyo Institute of Technology, Japan*

KC03 11:30 **Electric field control of coercivity of Pt / Co / Al-O trilayer structures**
Tatsuro Ohashi[1], Junichi Shiogai[1], Tim Yang[1], Makoto Kohda[1]*, Takeshi Seki[2], Kesami Saito[2], Koki Takanashi[2] and Junsaku Nitta[2], *[1]Department of Materials Science, Tohoku university, Japan; [2]Department of Materials Science, IMR, Tohoku university, Japan*

KC04 11:45 **Microstructure and magnetic property of epitaxial Fe/MgO layer on GaAs and InAs (001) substrates**
Kyung Ho Kim[1], Hyung-jun Kim[1]*, Jun Woo Choi[1], Joonyeon Chang[1] and Young Keun Kim[2], *[1]Spin Convergence Research Center, Korea Institute of Science and Technology, Korea; [2]Department of Materials Science and Engineering, Korea University, Korea*

KC05 12:00 **Magnetic and transport properties of epitaxial discontinuous Fe/MgO multilayers**
A. Garcia - Garcia[1], J. A. Pardo[2], P. Strichovanec[3], A. Vovk[4], J. M. De Teresa[1], G. N. Kakazei[5], Yu. G. Pogorelov[5], P. A. Algarabel[1]* and M. R. Ibarra[2], *[1]ICMA, Universidad de Zaragoza-CSIC, 50009 Zaragoza, Spain; [2]INA, Universidad de Zaragoza, 50018 Zaragoza, Spain; [3]INA, Universidad de Zaragoza, 50018, Spain; [4]CFMC, Universidade de Lisboa, 1749-016 Lisboa, Portugal; [5]IFIMUP Universidade do Porto, 4169-007 Porto, Portugal*

KC06 12:15 **Magnetic and transport properties of submicron Gd strip**
Seiji Nonoguchi[1], Tatsuya Nomura[1], Takahiro Matsunaga[2], Kohsuke Furukawa[2], Masahiro Hara[2] and Takashi Kimura[1]*, *[1]Kyushu University, Japan; [2]Kumamoto University, Japan*

KD: Characterization of magnetic properties

July 13 (Fri), 11:00~12:30, Room 109~10 (1F)

Chairperson: Chan Yong Hwang (KRISS, Korea)

KD01 11:00 **Spin coupling, orbital angular momentum quenching, and electron localization in size-selected free transition metal clusters**
Konstantin Hirsch[1], Markus Niemeyer[1], Vicente Zamudio-Bayer[1], Andreas Langenberg[1], Arkadiusz Lawicki[1], Bruno Langbehn[1], Henning Schroeder[1], Martin Kossick[2], Akira Terasaki[3], Thomas Moeller[2], Bernd Von Issendorff[4] and Tobias Lau[1]*, *[1]Institut fuer Methoden und Instrumentierung der Forschung mit Synchrotronstrahlung, Helmholtz-Zentrum Berlin fuer Materialien und Energie GmbH, Germany; [2]Institut fuer Optik und Atomare Physik, Technische Universitaet Berlin, Germany; [3]Cluster Research Laboratory and Department of Chemistry, Toyota Technological Institute and Kyushu University, Japan; [4]Fakultaet fuer Physik, Universitaet Freiburg, Germany*

KD02 *Withdrawn **Nm-sized magnetic domains observed by small angle neutron scattering in exchange coupled superlattices**
Karine Dumesnil[1]*, Catherine Dufour[1], Mike Fitzsimmons[2], Julie Borchers[3], Kathryn Krycka[3], Mark Laver[4] and Jonghan Won[2], *[1]Institut Jean Lamour - Lorraine University, France; [2]LANSCE, USA; [3]NIST, USA; [4]PSI, Switzerland*

KD03 11:30 **Optical and magneto-optical characterization of $Y_{0.5}Bi_{2.5}Fe_5O_{12}$ and $Bi_3Fe_5O_{12}$thin films prepared by metal-organic decomposition**
Shengjun Tang[1], Tomohiko Yoshida[1], Martin Veis[2], Martin Zahradnik[2], Roman Antos[2], Takumi Moriyama[3] and Takayuki Ishibashi[1]*, *[1]Department of Materials Science of Technology, Nagaoka University of Technology, Japan; [2]Faculty of Mathematics and Physics, Charles University at Prague, Czech Republic; [3]HORIBA, Ltd., Japan*

KD04 11:45 **Fabrication of the epitaxial growth of (100) and (110) oriented Heusler alloy films for magnetic damping measurement.**
Augustin Lutondo Kwilu, Mikiko Oogane, Hiroshi Naganuma and Yasuo Ando, *Department of Applied Physics, Tohoku University, Japan*

KE: Domain walls and spin ice system

July 13 (Fri), 11:00~12:30, Room 201 (2F)

Chairperson: Volodymyr Kruglyak (University of Exeter, UK)

KE01 11:00 **Thermalised and frozen magnetization dynamics in artificial spin ice**
Jason Morgan[1], Zoe Budrikis[2], Johanna Akerman[3], Aaron Stein[4], Paolo Politi[5], Sean Langridge[6], Robert Stamps[7] and Christopher Marrows[1]*, *[1]School of Physics and Astronomy, University of Leeds, United Kingdom; [2]School of Physics, University of Western Australia, Australia; [3]ISOM, Universidad Politecnica Madrid, Spain; [4]Center for Functional Nanomaterials, Brookhaven National Laboratory, USA; [5]Istituto dei Sistemi Complessi, CNR, Italy; [6]ISIS, STFC Rutherford Appleton Laboratory, United Kingdom; [7]SUPA School of Physics and Astronomy, University of Glasgow, United Kingdom*

KE02 11:30 **Towards fully 3-dimensional MRAM**
Russell Cowburn, *Cavendish Laboratory, University of Cambridge, United Kingdom*

KE03 12:00 **Spin-transfer-torques-induced domain-wall motion in ferromagnetic Pt/Co/Pt nanowires with perpendicular magnetic anisotropy**
Kab-jin Kim[1], Jae-chul Lee[1], Jisu Ryu[2], Kyoung-woong Moon[1], Sang-jun Yun[1], Kyung-ho Shin[3], Hyun-woo Lee[2] and Sug-bong Choe[1]*, *[1]Department of Physics, Seoul National Univerisity, Korea; [2]Department of Physics, POSTECH, Korea; [3]KIST, Korea*

KF: Novel spintronic devices and materials

July 13 (Fri), 11:00~12:30, Room 202 (2F)

Chairperson: T. Kimura (Kyushu University, Japan)

KF01 11:00 **Non-linear dynamics and high RF detection sensitivity in MgO-based spin-torque diode**
Yoshishige Suzuki[1], Shinji Miwa[1], Shota Ishibashi[1], Hiroyuki Tomita[1], Takayuki Nozaki[2], Eiichi Tamura[1], Ken Ando[1], Takeshi Saruya[2], Hitoshi Kubota[2], Kay Yakushiji[2], Akio Fukushima[2] and Shinji Yuasa[2], *[1]Graduate School of Engineering Science, Osaka University, Japan; [2]Spintronics Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Japan*

KF02 *Withdrawn **Finite tunnel magnetoresistance in junctions with a zero magnetization ferromagnetic electrode**
Karine Dumesnil*, Mathias Bersweiler, Mathieu Da Silva, Catherine Dufour, Michel Hehn, Daniel Lacour and Francois Montaigne, *Institut Jean Lamour - Lorraine University, France*

KF03 11:30 **Effects of mechanical rotation and vibration on spin currents**
Mamoru Matsuo*, Jun'ichi Ieda, Eiji Saitoh and Sadamichi Maekawa, *Advanced Science Reserch Center, Japan Atomic Energy Agency, Japan*

KF04 11:45 **Design of self-organized nanostructures to achieve high blocking temperatures in MgO-based d^0 ferromagnets**
Masayoshi Seike[1]*, Tetsuya Fukushima[2], Kazunori Sato[2] and Hiroshi Katayama-yoshida[2], *[1]Grad. School of Eng. Sci., Osaka Univ. and Cent. Research Labs., Sysmex Corp., Japan; [2]Grad. School of Eng. Sci., Osaka Univ., Japan*

KF05 12:00 **Negative spin-polarization of Fe_4N observed by spin-resolved photoemission spectroscopy**
Keita Ito[1], Kazunori Harada[1], Tatsunori Sanai[1], Kaoru Toko[1], Kazuaki Okamoto[2], Shigenori Ueda[3], Yoji Imai[4], Koji Miyamoto[5], Taichi Okuda[5], Akio Kimura[2] and Takashi Suemasu[1], *[1]Institute of Applied Physics, University of Tsukuba, Japan; [2]Graduate School of Science, Hiroshima University, Japan; [3]Synchrotron X-ray Station at SPring-8, NIMS, Japan; [4]AIST, Japan; [5]HSRC, Hiroshima University, Japan*

KG: SCES theory III

July 13 (Fri), 11:00~12:30, Room 203 (2F)

Chairperson: T. Devereaux (Stanford University, USA)

KG01 11:00 **Hidden order pseudogap and hybridization modulation in URu_2Si_2**
Alexander Balatsky[1], Jason Haraldsen[1], Yoni Dubi[2], Jian Xin Zhu[3], Peter Wolfle[4] and Matthias Graf[3], *[1]Center for Integrated Nanotechnologies, LANL, USA; [2]Center for Integrated Nanotechnologies, LANL, Israel; [3]Theory division, LANL, USA; [4]Institute for Theory of Condensed Matter and Center for Functional Nanostructures, Karlsruhe Germany, Germany*

KG02 11:30 **Strain-effect on topological quantum phase transition in Ir-oxides**
Jaejun Yu, *Department of Physics and Astronomy and CSCMR, Seoul National University, Korea*

KG03 12:00 **Hollandites - theoretical aspects of their unique electronic properties**
Tatsuya Toriyama[1], Masayuki Watanabe[1], Takehisa Konishi[2] and Yukinori Ohta[1]*, *[1]Department of Physics, Chiba University, Japan; [2]Graduate School of Advanced Integration Science, Chiba University, Japan*

KG04 12:15 **Inter-band pairing and inhomogeneous superconductivity in multi-orbital systems**
Mucio A. Continentino[1] and Heron Caldas[2], *[1]Theory, Centro Brasileiro de Pesquisas Fisicas, Brazil; [2]Physics, Universidade Federal de S. J. del Rei, Brazil*

KH: Coercivity mechanism

July 13 (Fri), 11:00~12:30, Room 204 (2F)

Chairperson: Nora Dempsey (Institut Neel CNRS/UJF, France)

KH01 11:00 **High performance permanent magnets for energy applications**
Oliver Gutfleisch[1], Tom G Woodcock[2], Simon Sawatzki[2], Konrad Lowe[2] and Konrad Guth[2], *[1]Material Science, TU Darmstadt, Germany; [2]IFW Dresden, Germany*

KH02 11:30 **Influence of surface anisotropy on orientation of crystal grain in rare-earth permanent magnet**
Chiharu Mitsumata*, Hiroki Tsuchiura and Akimasa Sakuma, *Tohoku University, Japan*

KH03 11:45 **International comparison of the properties of permanent magnets measured using an electromagnet and a pulse field magnetometer**
Michael Hall, *National Physical Laboratory, United Kingdom*

KH04 12:00 **Ab initio calculations of magnetic moment and magneto-crystalline anisotropy: New ternary alloy Mn-Bi-Co permanent magnet**
Yang-ki Hong[1]*, Jihoon Park[1], Oleg N Mryasov[2], Jaejin Lee[1], Seong-gon Kim[3], Sungho Kim[3], Chul-jin Choi[4] and Jung-goo Lee[4], *[1]Department of Electrical and Computer Engineering and MINT Center, The University of Alabama, USA; [2]Physics and Astronomy and MINT Center, The University of Alabama, USA; [3]Department of Physics & Astronomy and Center for Computational Sciences, Mississippi State University, USA; [4]Korea Institute of Materials Science, Korea*

KI: Theoretical calculation

July 13 (Fri), 11:00~12:30, Room 205 (2F)

Chairperson: Roberto Zivieri (University of Ferrara, Italy)

KI01 11:00 **First-principles prediction of large perpendicular magnetocrystalline anisotropy of 4d-monolayers on bcc-Fe(001) surface**
Dorj Odkhuu, Tumurbaatar Tsevelmaa, Won Seok Yun, Oryong Kwon, Bharat Kumar Sharma and Soon Cheol Hong*, *Department of Physics, University of Ulsan, Korea*

KI02 11:30 **Ferromagnetic phase at the $LaAlO_3$ /$SrTiO_3$ (001) interface induced by $SrTiO_3$ lattice deformation**
Jichao C Li and Carmen Munoz*, *ICMM- Consejo Superior de Investigaciones Cientificas, Spain*

KI03 11:45 **Interfacial magnetic anisotropy of junctions between Fe and transition-metal nitrides or carbides: a first-principles study**
Masahito Tsujikawa[1], Miura Yoshio[2] and Masafumi Shirai[3], *[1]CSIS, Tohoku University, Japan; [2]RIEC and CISI, Tohoku University, Japan; [3]RIEC and CSIS, Tohoku University, Japan*

KI04 12:00 **Enhancement of exchange coupling by incoherent quantum resonance**
Ching Hao Chang, *National Tsing Hua University, Taiwan*

KI05 12:15 **Scrolling effects in vanadium oxide nanotubes and nanolayers**
Sergey Demishev[1]*, Alexey Chernobrovkin[1], Vladimir Glushkov[1], Nickolay Sluchanko[1], Nickolay Samarin[1], Alexey Semeno[1], Anastasiya Grigorieva[2], Evgenii Goodilin[2], Hitoshi Ohta[3], S. Okubo[3], M. Fujisawa[3] and T. Sakurai[3], *[1]Low Temperatures and Cryogenic Engineering, General Physics Institute of RAS, Russia; [2]Faculty of Materials Sciences, Moscow State University, Moscow, 119991 Russia; [3]Molecular Photoscience Research Center, Kobe University, 1-1 Rokkodai, Nada, Kobe 657-8501, Japan*

KJ: New developments

July 13 (Fri), 11:00~12:30, Room 206 (2F)

Chairperson: Eunseong Kim (KAIST, Korea)

KJ01 11:00 **THz emission from High-T_c superconductor $Bi_2Sr_2CaCu_2O_{8+\delta}$ intrinsic josephson junctions junctions**
K. Kadowaki[1,2], T. Kashiwagi[1,2], M. Tsujimoto[1,2], K. Delfanazari[1,2], T. Kitamura[1,2], M. Sawamura[1,2], K. Ishida[1,2], S. Sekimoto[1,2], C. Watanabe[1,2], R. A. Klemm[3] and M. Tachiki[1], *Graduate School of Pure and Applied Science, University of Tsukuba, Japan; [2]CREST & WPI-MANA, Japan; [3]Department of Physics, University of Central Florida, USA*

KJ02 11:30 **Electric field control of magnetization in spiral magnets**
Kee Hoon Kim, *CeNSCMR, Department of Physics and Astronomy, Seoul National University, Korea*

KJ03 **Novel Josephson effect in triplet Josephson junctions: The story begins**

12:00 Dirk Manske, *Max Planck Institute for Solid State Research, Germany*

KJ04 **Field-induced polarization of dirac valleys in bismuth**

12:15 Zengwei Zhu[1], Aurelie Callaudin[1], Benoit Fauque[1], Woun Kang[2], Kamran Behnia[1]* and Yuki Fuseya[3], *[1]CNRS, France; [2]Ewha Womans University, Korea; [3]Osaka University, Japan*

POSTER PRESENTATION

Poster Presentation Topics

July 9 (Mon)	PA:	Multiferroics I
	PB:	Superconductivity I
	PC:	Superconductivity V
	PD:	Heavy fermions I
	PE:	Kondo Impurity and kondo lattice systems
	PF:	Theory of strongly correlated matter I
	PG:	Magnetic materials and characterization methods
	PH:	3d transition metal oxides I
	PI:	3d transition metal oxides II
	PJ:	Spin-dependent transport I
	PK:	Perpendicular magnetic anisotropy and strong anisotrorpy
	PL:	Surface and interface effects including exchange bias
	PM:	Soft magnetic materials I
	PN:	Dilutedmagnetic semiconductor/nano-composite I
	PO:	Interdisciplinary topics
July 10 (Tue)	QA:	Multiferroics II
	QB:	Superconductivity II
	QC:	Heavy fermions II
	QD:	Valence fluctuations
	QE:	Frustrated systems, kagome, triangular systems
	QF:	1D, low-dimensional systems
	QG:	Intermetallic compounds I
	QH:	Intermetallic compounds II
	QI:	Lanthanides I
	QJ:	Lanthanides II
	QK:	Spin-dependent transport II
	QL:	Diluted magnetic semiconductors and others
	QM:	Magnetic characterization
	QN:	Soft magnetic materials II
	QO:	Novel magnetic materials and devices II
	QP:	Magnetic recording and memories
July 12 (Thu)	RA:	Multiferroics III
	RB:	Superconductivity III
	RC:	Topological insulators I
	RD:	Heavy fermions III
	RE:	Non-fermi liquids and quantum phase transitions I
	RF:	Theory of strongly correlated matter II
	RG:	Theory of strongly correlated matter III
	RH:	Theory, spin, magnetic materials
	RI:	Phase transition
	RJ:	Vortex dynamics
	RK:	Ultrafast dynamics
	RL:	Spin electronics I
	RM:	Theoretical calculation
	RN:	Magnetic nanoparticles
	RO:	Hard magnetic materials I
	RP:	Measuring techniques and instrumentation I
	RQ:	Measuring techniques and Instrumentation II
	RR:	Industrial applications
July 13 (Fri)	SA:	Multiferroics IV
	SB:	Superconductivity IV
	SC:	Superconductivity VI
	SD:	Topologicai insulators II
	SE:	Heavy fermions IV
	SF:	Non-fermi liquids and quantum phase transitions II
	SG:	New developments
	SH:	Domain and domain walls
	SI:	Spin waves
	SJ:	Modeling
	SK:	Spin electronics II
	SL:	Magnetic nanostructures and arrays
	SM:	Magnetic thin films and others
	SN:	Hard magnetic materials II
	SO:	Novel magnetic materials and devices I

PA: Multiferroics I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)

Chairperson: Jong Hoon Jung (Inha University, Korea)

PA01 **Magnetoelectric polarization in the field-induced commensurate phase of Y-hexaferrite $Ba_{0.7}Sr_{1.3}Zn_2(Fe_{1-x}Al_x)_{12}O_{22}$**
Hak Bong Lee, Hun Chang, Young Sang Song, Jae-ho Chung, *Department of Physics, Korea Univ., Korea*

PA02 **Temperature- and field-tuning of magnetic phases in multiferroic $NdFe_3(BO_3)_4$**
Christie S. Nelson[1]*, Leonard N. Bezmaternykh[2] and Irina A. Gudim[2], *[1]Photon Sciences Directorate, Brookhaven National Laboratory, USA; [2]L.V. Kirensky Institute of Physics, Siberian Branch of RAS, Russia*

PA03 **Control of magnetic anisotropies for stable electric polarization in multiferroics hexaferrites**
Hun Chang, Hak-bong Lee, Young-sang Song and Jae-ho Chung*, *Department of phsics, Korea Univ., Korea*

PA04 **Chemical control of ferroelectric polarization in $Mn_{1-x}Co_xWO_4$**
Young-sang Song[1], Jae-ho Chung[1]*, Sung-beak Kim[2], Jurg Scheffer[3], Li Qin Yan[4], Bumsung Lee[4], Sae-hwan Chun[4], Kee Hoon Kim[4], A. Nogami[5] and T. Katsufuji[5], *[1]Department of Physics, Korea University, Seoul, 136-713, Korea; [2]Advancement for College Education Center, Konyang University, Chungnam 320-711, Korea; [3]Laboratory for Neutron Scattering, Paul Scherrer Institut, Villigen, Switzerland; [4]Department of Physics, Seoul National University, Seoul, 151-742, Korea; [5]Department of Physics, Waseda University, Tokyo 169-8555, Japan*

PA05 **Multiferroic phase competition in orthorhombic $RMnO_3$: Monte Carlo approaches**
Jun-ming Liu*, *Department of Physics, Nanjing University, China*

PA06 **Spin-driven electric polarization in akermanite $Sr_2MSi_2O_7$ crystals**
Mitsuru Akaki[1]*, Tomoya Tadokoro[1], Takumi Kihara[2], Masashi Tokunaga[2] and Hideki Kuwahara[1], *[1]Department of Physics, Sophia University, Japan; [2]The Institute for Solid State Physics, The University of Tokyo, Japan*

PA07 **Magnetoelectric effects in antiferromagnet $Ba_2CoGe_2O_7$**
Shin Miyahara[1] and Nobuo Furukawa[2], *[1]JST ERATO-MF, Japan; [2]JST ERATO-MF, Aoyama Gakuin University, Japan*

PA08 **X-ray non-reciprocal effects in multiferroic single crystal of $GaFeO_3$**
Andrei Rogalev*, Fabrice Wilhelm and Alexei Bosak, *European Synchrotron Radiation Facility, France*

PA09 **NMR study on $Ba_{0.5}Sr_{1.5}Zn_2(Fe_{0.92}Al_{0.08})_{12}O_{22}$**
Sangil Kwon[1], Soonchil Lee[1]*, Dong Young Yoon[1], Sae Hwan Chun[2], Yi Sheng Chai[2], Kee Hoon Kim[2], Euna Jo[1], Changsoo Kim[1] and Byeongki Kang[1], *[1]Department of Physics, Korea Advanced Institute of Science and Technology, Daejeon 305-701, Korea; [2]CeNSCMR, Department of Physics and Astronomy, Seoul National University, Seoul 151-747, Korea*

PA10 **Magnetic ordering in multiferroic $TbFexMn_{2-x}O_5$ with x=0.18**
Nadir Aliouane[1], Andrey Malyuk[2] and Dimitri N. Argyriou[3], *[1]Laboratory for Neutron scattering, Paul scherrer Institut CH-5232, Villigen-PSI, Switzerland; [2] IFW Dresden, Institute for Solid State Research Helmholtzstr. 20 DE-01069 Dresden, Germany; [3]Science Directorate, European Spallation Source ESS AB P.O Box 176, SE-221 00 Lund, Sweden*

PA11 **Strain-induced ferroelectric instabilities in the epitaxial RMn_2O_5 (R=Dy and Tb) thin films**
Jong Hyun Song[1], Jae Young Kim[2], Sun Hee Kang[3], Ill Won Kim[3], Yoon Hee Jeong[4] and Tae Yeong Koo[2]*, *[1]Physics Department, Chungnam National University, Korea; [2]Pohang Accelerator Laboratory, Korea; [3]Physics Department, Ulsan University, Korea; [4]Physics Department, Pohang University of Science and Technology, Korea*

PA12 **Magnetically driven ferroelectric atomic displacements in perovskite-type $YMnO_3$ determined by single-crystal structure analysis**
Daisuke Okuyama[1], Shintaro Ishiwata[2], Youtarou Takahashi[2], Kunihiko Yamauchi[3], Silvia Picozzi[4], Kunihisa Sugimoto[5], Hideaki Sakai[6], Masaki Takata[7], Ryo Shimano[8], Yasujiro Taguchi[1], Taka-hisa Arima[9] and Yoshinori Tokura[2], *[1]Cross-Correlated Materials Resarch Group (CMRG), and Correlated Electron Research Group (CERG), RIKEN ASI, Japan; [2]Department of Applied Physics and Quantum-Phase Electronics Center (QPEC), University of Tokyo, Japan; [3]The Institute of Scientific and Industrial Research (ISIR)-Sanken, Osaka University, Japan; [4]Consiglio Nazionale del le Ricerch-Superconducting and Innovative materials and device (CNR-SPIN), Italy; [5]JASRI, SPring-8, Japan; [6]School of Physics & Astronomy, University of St Andrews North Haugh, United Kingdom; [7]RIKEN, SPring-8 Center, Japan; [8]Department of Physics, University of Tokyo, Japan; [9]Department of Advanced Materials Science, University of Tokyo, Japan*

PA13 **Magnetic symmetry and electric polarization on $Mn_{1-x}Co_xWO_4$ multiferroics**
Irene Urcelay - Olabarria[1]*, Eric Ressouche[1], Jose Luis Garcia - Munoz[2], Vassil Skumryev[3], Alexander Mukhin[4] and Juan Manuel Perez - Mato[5], *[1]Institut Laue Langevin, 38042 Grenoble, Cedex 9, France; [2]Instituto de Ciencia de Materiales de Barcelona, ICMAB-CSIC, E-08193 Bellaterra, Spain; [3]Institut Catala de Recerca i Estudis Avancats (ICREA), E-08193 Barcelona, Spain; [4]Prokhorov General Physics Institute of the Russian Acad. Sci., 119991 Moscow, Russia; [5]Dpto. De Fisica de la Materia Condensada, Fac. de Ciencia y Tecnologia, Universidad del Pais Vasco, Spain*

PA14 **Crystal and magnetic structure of multiferroic $Ba_2CoGe_2O_7$**
Vladimir Hutanu[1]*, Andrew Sazonov[2], Martin Meven[1], Dmitry Chernyshov[3], H. Murakawa[4], Y. Tokura[4], Istvan Kezsmarki[5], Balint Nafradi[6] and Georg Roth[1], *[1]Institut fur Krystallographie, RWTH Aachen University, Germany; [2]Laboratoire Leon Brillouin, CEA, Centre de Saclay; DSM/IRAMIS, France; [3]Swiss-Norwegian Beam Lines, ESRF, France; [4]Multiferroics Project, ERATO, JST, University of Tokyo, Japan; [5]Department of Physics, Budapest University of Technology, Hungary; [6]Max Planck Institute for Solid State Research, Stutgart, Germany*

PA15 **The role of Co-doping in $Mn_{0.85}Co_{0.15}WO_4$ studied by magnetic X-ray scattering**
Javier Herrero-martin[1]*, Alexey Dobrynin[2], Paul Steadman[2], Peter Bencok[2], Raymond Fan[2], Claudio Mazzoli[3], A. M. Balbashov[4] and A. A. Mukhin[5], *[1]Institute of Materials Science of Barcelona - CSIC, Spain; [2]Diamond Light Source, Didcot, Oxfordshire, United Kingdom; [3]Dpto. Fisica, Politecnico di Milano, Milano, Italy; [4]Moscow Power Engineering Institute, Moscow, Russia; [5]Prokhorov General Physics Institute of the Russian Acad. Sci., Moscow, Russia*

PA16 (Withdrawn) **Magnetic and electronic properties of hexagonal $RMnO_3$ (R = Y, Tb) quantum-wells**
Ambrose Seo*, *Physics and Astronomy, University of Kentucky, USA*

PA17 **Magnetic properties of the pyroxenes**
Sergey Streltsov[1] and Daniel Khomskii[2], *[1]Institute of metal Physics, Russia; [2]University of Cologne, Germany*

PA18 (Withdrawn) **High-field study of multiferroic $Ni_3V_2O_8$**
Junfeng Wang[1], Masashi Tokunaga[2], Zhangzhen He[3] and Koichi Kindo[2], *[1]Wuhan National High Magnetic Field Center, China; [2]The Institute for Solid State Physics (ISSP), The University of Tokyo, Japan; [3]Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, China*

PA19 **Control of coexisting ferroelectric phases in $RMnO_3$ crystals with fine tuning of 4f moment**
Tomoya Tadokoro*, Mitsuru Akaki, Haruhiko Kuroe, Tomoyuki Sekine and Hideki Kuwahara, *Department of Physics, Sophia University, Japan*

PA20 **$SmCr_3(BO_3)_4$ - A new multiferroic?**
Kirill N. Boldyrev[1]*, Marina N. Popova[1], Viktor V. Mal'tsev[2] and Nicolay I. Leonyuk[2], *[1]Solid State Spectroscopy, Institute of spectroscopy RAS, Russia; [2]Faculty of Geology, Moscow State University, Russia*

PA21 **Magnetodielectric effect in the antiferromagnet $SrNdFeO_4$**
Jungmin Hwang[1], Eun Sang Choi[2], Haidong Zhou[2], Yan Xin[2], Jun Lu[2] and Pedro Schlottmann[1], *[1]Florida State University/NHMFL, USA; [2]NHMFL (National High Magnetic Field Laboratory), USA*

PA22 **Mössbauer studies of Y-type hexaferrite by Aluminum doping**
Jung Tae Lim, Chin Mo Kim, Sung Wook Hyun, Mi Hee Won, Taejoon Kouh and Chul Sung Kim* , *Department of Physics, Kookmin University, Korea*

PA23 **Optical spectroscopy of the triangular lattice antiferromagnets $CuCrO_2$ and alpha-$CaCr_2O_4$**
Michael Schmidt[1]*, Zhe Wang[1], Franz Mayr[1], Sandor Toth[2], Bella Lake[2], A. T. M. Nazmul Islam[2], Vladimir Tsurkan[1], Alois Loidl[1] and Joachim Deisenhofer[1], *[1]Experimental Physics V, EKM, Institute of Physics, University of Augsburg, Germany; [2]Helmholtz Zentrum Berlin fur Materialien und Energie, Germany*

PA24 **Nuclear forward scattering in high magnetic fields; spin structures in the magnetic staircase of frustrated multiferroic $CuFeO_2$**
Cornelius Strohm[1]*, Tom T. A. Lummen[2], Puri I. Handayani[3], Thomas Roth[1], Peter J. E. M. Van Der Linden[1] and Paul H. M. Van Loosdrecht[3], *[1] European Synchrotron Radiation Facility, 6 rue Jules Horowitz 38000 Grenoble, France; [2]Department of Materials Science and Engineering, The Pennsylvania State University. 121 Steidle Building, University Park, PA, 16802, USA; [3]Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, 9747 AG Groningen, Netherlands*

PA25 **Magnetic dispersion of the quasi-1D, spin-1/2, multiferroic CuO**
Stephen Michael Gaw, *Oxford University, United Kingdom*

PB: Superconductivity I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jungseek Hwang (Sungkunkwan University, Korea)

PB01 **Hole-doped cuprate panorama and the second neighbor hopping**
Partha Goswami*, *Physics department, D.B.College(University of Delhi),New Delhi, India*

PB02 **Quantum oscillations from nodal bilayer magnetic breakdown in the underdoped high temperature superconductor $YBa_2Cu_3O_{6+x}$**
Neil Harrison, *Los Alamos National Laboratory, USA*

PB03 **Influence of $BaSnO_3$ nanoparticle dispersions on flux pinning property of $GdBa_2Cu_3O_{7-\delta}$ multilayered thin films**
Duc H. Tran[1], Witha B. K. Putri[1], Byeongwon Kang[1]*, N. H. Lee[2], W. N. Kang[2], J. Y. Lee[3] and W. K. Seong[3], *[1]Physics, Chungbuk National University, Korea; [2]Physics, Sungkyunkwan University, Korea; [3]Convergence Technology Laboratory, Korea Institute of Science and Technology, Korea*

PB04 **Highly anisotropic dielectric behavior of insulating $Bi_2Sr_2RECu_2O_{8+\delta}$ (RE = Dy, Y)**
Makoto Maki, Chikano Yukitake and Shigeyuki Yufu, *Department of Physics, Saga University, Japan*

PB05 **Pressure effect on the superconductivity and crystal structure for Hg cuprate**
Yukihiro Kamada[1], Tomoko Kagayama[1]*, Katsuya Shimizu[1], Akira Iyo[2] and Shin-ichi Uchida[3] *[1]KYOKUGEN, Osaka Univ., Japan; [2]AIST, Japan; [3]Dept. of Phys., The Univ. of Tokyo, Japan*

PB06 **Hole doping effect for the T'-Ln_2CuO_4 (Ln = La,Nd) cuprate**
Wataru Ito, Kenji Kawashima, Suguru Igarashi, Michinori Fukuma and Jun Akimitsu, *Physics and Mathematics, Aoyama Gakuin University, Japan*

PB07 **Thermodynamic properties of copper oxide $Cu_6O_8YCl_{1-x}Br_x$**
Kenji Kawashima, Hiroki Takeda and Jun Akimitsu, *Physics and Mathematics, Aoyama Gakuin University, Japan*

PB08 Nodal superconducting gap in Bi_{2201} investigated by low temperature specific heat measurements
Naoki Momono[1]*, Nobutaka Saikai[1], Tohru Kurosawa[2], Yusuke Amakai[1], Sigeyuki Murayama[1], Hideaki Takano[1], Migaku Oda[2] and Masayuki Ido[2], *[1] Applied Sciences, Muroran Institute of Technology, Japan; [2]Department of Physics, Hokkaido University, Japan*

PB09 Chemically introduced disorder effects on the critical current density and pinning force of $YBaCu_2O_{7-\delta}$ single crystals
Rovan Fernandes Lopes[1]*, Valdemar Das Neves Vieira[1], Ana Paula Aguiar De Mendonca[1], Fabio Teixeira Dias[1], Douglas Langie Da Silva[1], Paulo Pureur[2], Jacob Schaf[2] and Frederik Wolff-fabris[3], *[1]Universidade Federal de Pelotas, Brazil; [2]Universidade Federal do Rio Grande do Sul, Brazil; [3]HZ Dresden-Rossendorf, Germany*

PB10 The correlation between the magnetic irreversibility and the zero resistance temperatures in granular $YBa_2Cu_3O_{7-\delta}$ single crystals
Daniela Goetzke Macedo[1]*, Valdemar Vieira[1], Fabio Dias[1], Douglas langie[1], Paulo Pureur[2], Jacob Schaf[2] and Frederik Fabris[3], *[1]Instituto de Fisica e Matematica, UFPEL, Brazil; [2]Instituto de Fisica, UFRGS, Brazil; [3]Dresden High Magnetic Field Laboratory, HZ Dresden-Rossendorf, Brazil*

PB11 Paramagnetic Meissner effect and strong time dependence at high fields in melt-textured high-tc superconductors
Cristol De Paiva Gouvea[1]*, Fabio Teixeira Dias[1], Valdemar Das Neves Vieira[1], Douglas Langie Da Silva[1], Frederik Wolff-Fabris[2], Erik Kampert[2], Jacob Schaf[3] and Joan Josep Roa Rovira[4], *[1]Universidade Federal de Pelotas, 96010-900, Pelotas, Brazil; [2]Dresden High Magnetic Field Laboratory, HZ Dresden-Rossendorf, 01314, Dresden, Germany; [3]Universidade Federal do Rio Grande do Sul, 91501-970, Porto Alegre, Brazil; [4]Universite de Poitiers, 86962, Poitiers, France*

PB12 Enhancement of Ti-Se bonding length in $CuxTiSe_2$
Sang Wook Han[1], Han-jin Noh[2], Daehyun Kim[3], Jihoon Hwang[3], Jeong Soo Kang[3], W. F. Pong[4] and Soon Cheol Hong[1]*
[1]Department of Physics and EHSRC, University of Ulsan, Korea; [2]Department of Physics, Chonnam Nation University, Korea; [3]Department of Physics, The Catholic University of Korea, Korea; [4]Department of Physics, Tamkang University, Taiwan

PB13 Para-conductivity of $(Bi_{0.25}Cu_{0.25}Li_{0.25}Tl_{0.25})Ba_2Ca_2Cu_3O_{10-\delta}$ superconductors
Qurat-ul Ain and Nawazish Ali Khan, *Physics, Quaid-i-azam University Islamabad Pakistan*

PB14 Charge transfer instability governs unconventional behavior of doped cuprates
Alexander Moskvin and Alexey Korolev, *Department of Theoretical Physics, Ural Federal University, Russia*

PB15 The effect of CdO nanoparticles doping and sintering time on the structure and critical temperature of Bi_{2223} superconductor
Morteza Zargar Shoushtari*, S Ebrahim Musavi Ghahfarokhi and Nahid Hossinzadeh, *Physics, Shahid Chamran University of Ahvaz, Iran*

PB16 Charging/Discharging and overcurrent characteristics of GdBCO coils using various partial insulation winding methods
Yoon Hyuck Choi, Kwang Lok Kim, Oh Jun Kwon, Hyun-jin Shin and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB17 Effect of filter shape on the capture efficiency of a high gradient magnetic separation (HGMS) system
Young-gyun Kim, Jung-bin Song, Dong Gyu Yang, Jongseok Lee and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB18 Effects of various epoxy impregnations on the electrical properties of GdBCO-coated conductor racetrack pancake coils
Hyun-jin Shin, Kwang Lok Kim, Yoon Hyuck Choi, Oh Jun Kwon, Yeonjoo Park and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB19 (Withdrawn) Crystal structure of $(Ru_{0.5}Cu_{0.5})(Sr_{1.47}Ba_{0.2}Nd_{0.33})(NdCe)Cu_2O_{10-\delta}$ compound
H.K. Lee[1] and Y.I. Kim[2], *[1]Physics, Kangwon National University, Deptartment of Physics, Korea; [2] Korea Research Institute of Standards and Science, Korea*

PB20 Absence of broken time reversal symmetry below the surface of (110)-oriented YBCO superconductors
Hassan Saadaoui[1]*, Zaher Salman[1], Thomas Prokscha[1], Hannu Huhtinen[2] and Elvezio Morenzoni[1], *[1]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland; [2]Department of Physics, Wihuri Physical Laboratory, University of Turku, FI-20014 Turku, Finland*

PB21 Transport properties of the twin boundary of $YBa_2Cu_3O_7$ thin films on $LaAlO_3$ substrates
Sung Hoon Lee[1], Sung-hak Hong[1], Jae-hyuk Choi[2] and Soon-gul Lee[1]*, *[1]Department of Display and Semiconductor Physics, Korea University, Korea; [2]Division of Convergence Technology, Korea Research Institute of Standards and Science, Korea*

PB22 Displacement waves of oxygen atoms in the Bi, Pb_{2223} lattice of superconducting composites annealed in an oxygen reduced atmosphere
Tatiana Krinitsina*, Svetlana Sudareva, Elena Kuznetsova and Julia Blinova, *Institute of Metal Physics, Ural Branch of Russian Academy of Sciences, Russia*

PB23 Irreversibility line in the CNT and carbon doped YBCO superconductors
Sedigheh Dadras[1]*, Nallayian Manivannan[2], Vahid Daadmehr[1] and Kee Hoon Kim[3], *[1]physics, Other Academic, Iran; [2]physics, Other Academic, India; [3]Other Academic, Korea*

PB24 Nonlocal excitations and 1/8 singularity in cuprates
Yoshiro Kakehashi*, M. Atiqur R. Patoary and Sumal Chandra, *Department of Physics, University of the Ryukyus, Japan*

PB25 Magnetic memory in a ceramic YBCO superconductor composed of sub-micron size grains
Hiroyuki Deguchi[1]*, Takuya Ashida[1], Mitsuhiro Syudou[1], Masaki Mito[1], Makoto Hagiwara[2], Kuniyuki Koyama[3] and Seishi Takagi[1], *[1]Faculty of Engineering, Kyushu Institute of Technology, Japan; [2]Faculty of Engineering and Design, Kyoto Institute of Technology, Japan; [3]Faculyu of Integrated Arts and Science, The Univercity of Tokushima, Japan*

PB26 Phase diagram of high-tc superconductivity and antiferromagnetism revealed by Cu-NMR in multilayered cuprates
Hidekazu Mukuda[1]*, Sunao Shimizu[1], Akira Iyo[2] and Yoshio Kitaoka[1], *[1]Osaka University, Japan; [2] National institute of Advanced Industrial Science and Technology (AIST), Japan*

PB27 Magnetism and superconductivity in $CeCu_2Ge_2$ under high pressures and magnetic fields
Fuminori Honda[1]*, Takashi Maeta[2], Yusuke Hirose[2], Atsushi Miyake[3], Tetsuya Takeuchi[4], Katsuya Shimizu[3], Tomoko Kagayama[3], Rikio Settai[2] and Yoshichika Onuki[2], *[1]Graduate School of Engineering Science, Osaka University, Japan; [2]Graduate School of Science, Osaka University, Japan; [3] KYOKUGEN, Osaka University, Japan; [4]Low Temperature Center, Osaka University, Japan*

PB28 Doping and temperature dependence of Fermi arc in cuprate superconductors
Shiping Feng*, Huaisong Zhao and Lulin Kuang, *Department of Physics, Beijing Normal University, China*

PB29 Static spin correlation in $Pr_{2-x}Ca_xCuO_4$ Studied by neutron scattering
Kenji Tsutsumi[1]*, Tomohiro Miura[1], Masanori Enoki[2], Kentaro Sato[3], Masato Matuura[4], Kazuyoshi Yamada[5] and Masaki Fujita[6], *[1]Department of Physics, Tohoku University, Japan; [2]Kysyu Institute Technology, Japan; [3]Department of Physics, Tohoku university, Japan; [4]IMR, Tohoku University, Japan; [5]WPI, Tohoku University, Japan; [6]IMR, Tohoku Univesity, Japan*

PB30 High-energy neutron scattering study of spin excitation in slightly-overdoed $La_{1.82}Sr_{0.18}CuO_4$
Kentaro Sato[1]*, Masato Matsuura[2], Masaki Fujita[2], Kenji Tsutsumi[1], Masanori Enoki[3] and Kazuyoshi Yamada[4], *[1]Physics, Tohoku University, Japan; [2]IMR, Tohoku University, Japan; [3]Kyushu Institute of Technology Graduate School of Life Science and Systems Engineering, Japan; [4]WPI, Tohoku University, Japan*

PB31 Quantized massive gauge fields around the doped holes in high-tc cuprates and the relation to iron pnictides
Ikuzo Kanazawa*, *Physics, Tokyo Gakugei University, Japan*

PB32 Ho-doping effect on the static stripe order in La_{214} superconductor
Masaki Fujita[1]*, Masanori Enoki[2], Satoshi Iikubo[2], Kenji Tsutsumi[3], Kentaro Sato[3], Masato Matsuura[1] and Kazuyoshi Yamada[4], *[1]Institute for Materials Research, Tohoku University, Japan; [2]Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Japan; [3]Department of Physics, Tohoku University, Japan; [4]World Premier International Research Center, Tohoku University, Japan*

PB33 High field paramagnetic meissner effect in Ca doped $YBa_2Cu_3O_{7-\delta}$ single crystals
Valdemar Vieira[1]*, Augusto Falck[1], Fabio Dias[1], Douglas Da Silva[1], Paulo Pureur[2], Jacob Schaf[2] and Frederik Fabris[3] *[1]Instituto de Fisica e Matematica, UFPEL, Brazil; [2]Instituto de Fisica, UFRGS, Brazil; [3]Dresden High Magnetic Field Laboratory, HZ Dresden-Rossendorf, Germany*

PB34 Growth of a-axis oriented thin films of infinite-layer $Sr_{1-x}La_xCuO_2$
Hiroyuki Akatsuka*, Keita Sakuma, Kenji Ueda and Hidehumi Asano, *Crystalline Materials Science, Nagoya University, Japan*

PB35 Thermal stability of an epoxy-impregnated HTS racetrack coil without turn-to-turn insulation for rotating machines
Oh Jun Kwon, Kwang Lok Kim, Yoon Hyuck Choi, Hyun-jin Shin and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB36 Design, fabrication, and testing of a cooling system using solid nitrogen for a 3 T/60-mm RT bore superconducting HGMS
Jung-bin Song, Kwang Lok Kim, Dong Gyu Yang, Yoon Hyuck Choi, Jongseok Lee and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB37 Purification of chemical mechanical polishing wastewater using a 2G HTS high gradient magnetic separation system
Dong Gyu Yang, Jung-bin Song, Young-gyun Kim, Jongseok Lee, Yeonjoo Park and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB38 Effect of liquid cryogen on a 2G HTS magnet using a mixed cryogen cooling system
Kwang Lok Kim, Jung-bin Song, Yoon Hyuck Choi, Dong Gyu Yang and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB39 Removal of silica and copper ions from CMP wastewater via magnetic seeding aggregation using superconducting HGMS
Jongseok Lee, Jung-bin Song, Dong Gyu Yang, Yeonjoo Park and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

PB40 Joint characteristics of ReBCO-coated conductors using various fusion splicing techniques
Yeonjoo Park[1], Hyun-jin Shin[1], Young-gyun Kim[1], Young Kun Oh[2] and Haigun Lee[1]*, *[1]Department of Materials Science and Engineering, Korea University, Korea; [2]K-joins Co., Korea*

PC: Superconductivity V

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chiarperson: H. Mukuda (Osaka University, Japan)

PC01 (Withdrawn) Bulk electronic structure of $LaRu_2P_2$ probed by soft X-ray angle-resolved photoemission spectroscopy (SX-ARPES)
E. Razzoli[1], M. Kobayashi[1], V. N. Strocov[1], B. Delley[1], Z. Bukowski[2], J. Karpinski[3], N. C. Plumb[1], M. Radovic[1], J. Chang[1], T. Schmitt[1], L. Patthey[1], J. Mesot[1] and M. Shi[1]*, *[1]Paul Scherrer Institute, Switzerland; [2]Laboratory for Solid State Physics, ETH Zurich, Switzerland; [3]Laboratory for Solid State Physics, ETH Zuurich, Switzerland*

PC02 Superlattice quantum critical point in the cubic metal $(Sr/Ca)_3Ir_4Sn_{13}$
Lina Esther Klintberg[1], Swee Kuan Goh[1]*, Patricia Alireza[1], Paul Saines[1], David Tompsett[1], Peter Logg[1], Jinhu Yang[2], Bin Chen[2], Kazuyoshi Yoshimura[2] and Malte Grosche[1], *[1]University of Cambridge, United Kingdom; [2]University of Kyoto, Japan*

PC03 (Withdrawn) Unconventional superconductivity in $PuCoIn_5$: An NQR investigation.
Hiroshi Yasuoka[1], Georgios Koutroulakis[1]*, Hiroyuki Chudo[2], Eric D. Bauer[1] and Joe D. Thompson[1], *[1]Los Alamos National Laboratory, USA; [2] Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

PC04 Pressure effect on the structural and superconducting transitions in a caged compound $PrRh_2Zn_{20}$
Y Sugano[1], T Ohsuka[1], K Umeo[2]*, N Nagasawa[1], T Onimaru[1] and T Takabatake[1], *[1]AdSM, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima 739-8530, Japan; [2]N-BARD, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima 739-8526, Japan*

PC05 Phonon raman scattering of YB6
Koichi Yukawa[1]*, Hisamitu Bandou[1], Norio Ogita[1], Masayuki Udagawa[1], Fumitoshi Iga[2] and Takumi Hasegawa[1] *[1]Graduate School of Integrated Arts and Sciences, Hiroshima University, Higashi-Hiroshima 739-8521, Japan; [2]Graduate School of Science & Engineering, Ibaraki University, 2-1-1 Bunkyo, Mito 3 10-0056, Japan*

PC06 Vortex lattice structures in spin-triplet superconductors with weak spin-orbit coupling
Shuhei Takamatsu[1]* and Youichi Yanase[2], *[1]Graduate School of Science and Technology, Niigata University, Japan; [2]Faculty of science, Niigata University, Japan*

PC07 Effect of the magnetic trapped flux on the heat capacity of the low-temperature superconductors: Pb, La, Sn
Sergey Mikhailovich Podgornykh[1]*, Veronika Myakon'kikh[2] and Veronika Dyakina[3], *[1]Institute of Metal Physics, Ural Federal University, Russia; [2]Ural Federal University, Russia; [3]Institute of Metal Physics, Russia*

PC08 A novel superconductivity in Ir oxides with large spin-orbit coupling
Hiroshi Watanabe*, Tomonori Shirakawa and Seiji Yunoki , *RIKEN, Japan*

PC09 Fermi surface studies of $Sr_3Ir_4Sn_{13}$ via the Shubnikov-de Haas effect
Swee K. Goh[1]*, Lina Klintberg[1], David A. Tompsett[1], Sven Friedemann[1], Stan Tozer[2], Jinhu Yang[3], Bin Chen[3], Kazuyoshi Yoshimura[3] and Malte Grosche[1], *[1]University of Cambridge, United Kingdom; [2]National High Magnetic Field Laboratory, Florida State University, USA; [3]Kyoto University, Japan*

PC10 Magnetism in $CeIr(Si_xGe_{1-x})_3$ compounds
Jan Prokleska*, Jiri Pospisil, Marie Kratochvilova and Vladimir Sechovsky, *DCMP, Charles University, Ke Karlovu 5, 121 16, Prague, Czech Republic*

PC11 Superconductivity at 5.2K in $ZrTe_3$ polycrystals
P. L. Paulose* and C. S. Yadav, *Tata Institute of Fundamental Research, India*

PC12 Coexistence of superconductivity and antiferromagnetism in $CeNi_{0.8}Bi_2$
Soo-whan Kim[1], Soohyun Kim[1], Kyujoon Lee[1], Adrian Hiller[2], Devashibhai Adroja[2] and Myung-hwa Jung[1]*, *[1]Departmnet of Physics, Sogang University, Korea; [2]Science and Technology Facilities Council, United Kingdom*

PC13 Optical studies of superconducting InN thin film
H. L. Liu[1]*, C. Y. Liu[1], C. R. Lu[1], D. C. Ling[2] and P. H. Chang[3], *[1]Department of Physics, National Taiwan Normal University, Taiwan; [2]Department of Physics, Tamkang University, Taiwan; [3]Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, Taiwan*

PC14 Lateral Josephson junction induced by inverse proximity effect
Lu-kuei Lin[1], Ssu-yen Huang[1], Jin-hua Huang[2] and Shang-fan Lee[1]*, *[1]Institute of Physics, Academia Sinica, Taiwan; [2]Materials Science and Engineering, National Tsing Hua University, Taiwan*

PC15 13C NMR study of charge fluctuation induced superconductivity in beta''-(BEDT-TTF)4[$(H_3O)Ga(C_2O_4)_3$]-$C_6H_5NO_2$
Yoshihiko Ihara*, Harumi Seki and Atsushi Kawamoto, *Department of Physics, Graduate School of Science, Hokkaido univerisity, Japan*

PC16 Ac susceptibility components of a thin type-II superconducting annulus carrying a radial current
Aliakbar Babaei Brojeny*, Mostafa Molavi, Asghar Sharbaf Zadeh and Mahdi Sohrabi, *Department of Physics, Isfahan University of Technology, 84156-83111, Iran*

PC17 Pressure evolution of superconductivity in β-pyrochlore oxides
Takeshi Matsubara[1], Takayuki Isono[2], Daisuke Iguchi[1], Yo Machida[1], Koichi Izawa[1]*, Bernard Salce[3], Jacques Flouquet[3], Hiroki Ogusu[2], Jun-ichi Yamaura[2] and Zenji Hiroi[2], *[1]Department of physics, Tokyo Institute of Technology, Meguro, Tokyo 152-8551, Japan; [2]ISSP, University of Tokyo,Kashiwa, Chiba 277-8581, Japan; [3]SPSMS, CEA-Grenoble, 38054 Grenoble Cedex 9, France*

PC18 Inverse magnetic proximity effects in superconducting Sn-Ni nanoparticle assemblies
Chi-hung Lee, Yen-cheng Chen, Chin-wei Wang and Wen-hsien Li*, *Physics, National Central University, Taiwan*

PC19 Pressure study on anisotropic electrical resistivity of Hg-doped $CeRhIn_5$
Soonbeom Seo[1], Sol Ju[1], E.d. Bauer[2], J.d. Thompson[2] and Tuson Park[1]*, *[1]Physics, Sungkyunkwan University, Korea; [2]Physics, Los Alamos National Laboratory, USA*

PC20 Control of superconductivity in parity mixing superconductors Li_2T_3B(T:Pt,Pd) by non-magnetic impurity and defect doping
Guizhi Bao[1], Gaku Eguchi[2], Akiko Ono[3], Yoshihiko Inada[4], Yoshiteru Maeno[2] and Guo-qing Zheng[1]
[1]Department of Physics, Okayama University, Japan; [2]Department of Physics, Graduate School of Science, Kyoto University, Japan; [3]Graduate School of Education, Okayama university, Japan; [4]Graduate school of Natural Science and Technology, Graduate School of Education, Okayama university, Japan

PC21 Pressure-induced metal-insulator transition of Mott insulator Ba_2IrO_4
Daisuke Orii[1]*, Masafumi Sakata[1], Atsushi Miyake[1], Katsuya Shimizu[1], Hirotaka Okabe[2], Masaaki Isobe[2], Eiji Muromachi[2] and Jun Akimitsu[3], *[1]KYOKUGEN, Osaka Univ., Japan; [2]NIMS, Japan; [3]Aoyama Gakuin Univ., Japan*

PC22 Charge and spin order of charge stripe ordered $La_{2-x}Sr_xCoO_4$
Paul G. Freeman[1], E. Wechke[2], E. Schierle[2], A. T. Boothroyd[3] and D. P[3], *[1]Helmholtz-Zentrum Berlin, Germany; EPFL, Lausanne, Swizerland; ILL, Grenoble, France; [2]Helmholtz-Zentrum Berlin, Germany; [3]Department of Physics, Oxford University, United Kingdom*

PC23 Strong enhancement of superconductivity in inorganic electride $12CaO•7Al_2O_3$:e- under high pressure
Shigeki Tanaka[1]*, Tomoki Kato[1], Atsushi Miyake[1], Tomoko Kagayama[1], Katsuya Shimizu[1], Sung Wng Kim[2], Satoru Matsuishi[3] and Hideo Hosono[4], *[1]KYOKUGEN, Osaka University, Japan; [2]Frontier Research Center, Tokyo Institute of Technology, Japan; [3]Materials and Structures Laboratory, Tokyo Institute of Technology, Japan; [4]Frontier Research Center, Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*

PC24 Superconductivity in conical magnets
Gertrud Zwicknagl, *Technische Universitaet Braunschweig, Germany*

PC25 Observation of Bose-metallic phase in Ta Films
Sungyu Park* and Eunseong Kim, *Department of physics, Center for Supersolid & Quantum matter Research and Department of Physics, KAIST, Daejeon, 305-701, Korea*

PC26 Non-trivial vortex dynamics in a superconducting Corbino disk
Masaru Kato and David E. Fujibayashi, *Department of Mathematical Sciences, Osaka Prefecture University, Japan*

PC27 Coexistence of ferromagnetism and superconductivity in single-phase Bi_3Ni nanostructures
Thomas Herrmannsdoerfer[1]*, Richard Skrotzki[1], Rico Schoenemann[1], Yurii Skourski[1], Joachim Wosnitza[1], Daniel Koehler[2], Regine Boldt[2] and Michael Ruck[2], *[1]Dresden High Magnetic Field Laboratory, Helmholtz-Zentrum Dresden-Rossendorf, Germany; [2]Department of Chemistry and Food Chemistry, TU Dresden, Germany*

PC28 (Withdrawn) Observation of twofold symmetry breaking in the gap function of heavy-fermion superconductor UPt_3
Yo Machida[1], Atsushi Itoh[1], Yoshitaka So[1], Koichi Izawa[1]*, Yoshinori Haga[2], Etsuji Yamamoto[2], Noriaki Kimura[3] and Yoshichika Onuki[4], *[1]Department of Physics, Tokyo Institute of Technology, Meguro, Tokyo 152-8551, Japan; [2]Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Ibaraki 319-1195, Japan; [3]Graduate School of Science and Center for Low Temperature Science, Tohoku Universit, Miyagi 980-8577, Japan; [4]Graduate School of Science, Osaka University, Toyonaka, Osaka 560-0043, Japan*

PC29 (Withdrawn) Investigation of the three-dimensional electronic structure of MgB_2 by soft X-ray angle-resolved photoelectron spectroscopy
Y. Sassa[1]*, M. Mansson[1], B. M. Wojek[2], M. Kobayashi[3], V. Strocov[3], O. Tjernberg[2], N. D. Zhigadlo[1] and B. Batlogg[1] *[1]Laboratory of Solid State Physics, ETH Zurich, CH-8093 Zurich, Switzerland; [2]Materials Physics, Royal Institute of Technology KTH, S-16440 Kista, Sweden; [3]Swiss Light Source, Paul Scherrer Institute, CH- 5234 Villigen PSI, Switzerland*

PC30 Vortex channeled effect in Nb thin film with artificial pinning array
Tian-chiuan Wu[1]*, Lance Horng[2], Jong-ching Wu[2] and Rong Cao[2], *[1]Department of Electrical Engineering, Nation Formosa University, Taiwan; [2]Department of Physics, National Changhua University of Education, Taiwan*

PC31 Role of the third dimension on the spectral property and transport behaviour in layered cuprates
Bhagya Sindhu Tewari, *Physics, University of Petroleum and Energy Studies, Dehradun, India*

PD: Heavy fermions I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: S. Sebastian (Cambridge University, UK)

PD01 Ground dielectric state of the Mott-doped material
Vladimir Gavrichkov*, *Krasnoyarsk, Kirensky Institute of Physics, Russia*

PD02 **Temperature-dependent phonon anomalies in uranium and plutonium compounds**
Peter S Riseborough*, *Physics, Temple University, USA*

PD03 (Withdrawn) **Non-linear conductivity of resistive oxides: truths and myths**
B. - Fisher*, J. - Genossar, L. - Patlagan and G. M. Reisner, *Physics, Technion, Israel*

PD04 **The modulated spin liquid and hidden order in URu_2Si_2**
Sebastien Burdin, *Bordeaux University, France*

PD05 **Fermi-surface evolution in Yb-substituted $CeCoIn_5$**
Joachim Wosnitza[1]*, Andrey Polyakov[1], Andrea D. Bianchi[2], S. Blackburn[2], B. Prevost[2], G. Seyfarth[2] and Michel Cote[2] *[1]Hochfeld-Magnetlabor Dresden, Helmholtz-Zentrum Dresden-Rossendorf, Germany; [2]Department de Physique and RQMP, Universite de Montreal, Montreal H3C 3J7, Canada*

PD06 **Spin exciton formation inside the hidden order phase of CeB_6**
Alireza Akbari and Peter Thalmeier, *MPI-CPfS, Germany*

PD07 **Antiferromagnetic fluctuation in hidden order phase of $U(Ru,Rh)_2Si_2$**
Makoto Yokoyama[1]*, Kenichi Tenya[2] and Hiroshi Amitsuka[3] , *[1]Faculty of Science, Ibaraki University, Japan; [2]Faculty of Education, Shinshu University, Japan; [3]Graduate School of Science, Hokkaido University, Japan*

PD08 **Pressure effect on the field-induced ordered phase in heavy fermion compound $YbCo_2Zn_{20}$**
Tetsuya Takeuchi[1], Yuki Taga[2], Shingo Yoshiuchi[2], Masahiro Ohya[2], Yusuke Hirose[2], Fuminori Honda[2], Rikio Settai[2] and Yoshichika Onuki[2], *[1]Low Temperature Center, Osaka University, Japan; [2]Graduate School of Science, Osaka University, Japan*

PD09 **29Si-NMR Study of antiferromagnet $CeRh_2Si_2$ using single crystals**
Hironori Sakai, Yo Tokunaga, Shinsaku Kambe, Yuji Matsumoto, Tatsuma D Matsuda and Yoshinori Haga , *Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

PD10 **Bulk compressibility of orthorhombic $YbFe_2Al_{10}$-type $CeRu_2Al_{10}$**
Yukihiro Kawamura[1]*, Kazuki Matsui[1], Keiichi Yamamoto[1], Yusuke Hori[1], Junichi Hayashi[1], Keiki Takeda[1], Chihiro Sekine[1] and Takashi Nishioka[2], *[1]Muroran Institute of Technology, Japan; [2]Kochi University, Japan*

PD11 **Ultrasound measurements on the skutterudite compound $SmOs_4P_{12}$**
Yoshiki Nakanishi[1]*, Gen Koseki[1], Dai Tamura[1], Kohei Kurita[1], Takeshi Saito[1], Minoru Koseki[1], Mitsuteru Nakamura[1], Masahito Yoshizawa[1], Masahito Yoshizawa[1], Yuya Koyota[2], Chihiro Sekine[2] and Takehiko Yagi[3], *[1]Iwate University, Japan; [2]Muroran Institute of Technology, Japan; [3]ISSP The University of Tokyo, Japan*

PD12 **$YbRh_2Si_2$: Fermi surface and crystal-field splittings of a heavy-Fermion compound**
Steffen Danzenbacher[1], Denis V. Vyalikh[1], Kurt Kummer[2], Yuri Kucherenko[3], Cornelius Krellner[4], Christoph Geibel[5], Serguei L. Molodtsov[6], Ming Shi[7], Luc Patthey[7] and Clemens Laubschat[1]*, *[1]Institut fur Festkorperphysik, Technische Universitat Dresden, D-01062 Dresden, Germany; [2]European Synchrotron Radiation Facility, FR-38043 Grenoble Cedex, France; [3]Institute of Metal Physics, National Academy of Sciences of Ukraine, UA-03142 Kiev, Ukraine; [4]Max-Planck-Institut fur Chemische Physik fester Stoffe, D-01187 Dresden, Germany; [5]Max-Planck-Institut fur Chemische Physik fester Stoffe, D-01187 Dresden, Germany; [6]European XFEL GmbH, , D-22671 Hamburg, Germany; [7]Swiss Light source, Paul Scherrer Institute, CH-5232 Villingen-PSI, Switzerland*

PD13 **Single crystal growth and various electronic states in Yb-based compounds**
Yusuke Hirose[1]*, Shingo Yoshiuchi[1], Naoto Nishimura[1], Jyunya Sakaguchi[1], Kentaro Enoki[1], Ken Iwakawa[1], Yasunao Miura[1], Tetsuya Takeuchi[2], Kiyohiro Sugiyama[1], Fuminori Honda[3], Etsuji Yamamoto[4], Yoshinori Haga[4], Masayuki Hagiwara[5], Koichi Kindo[6], Rikio Settai[1] and Yoshichika Onuki[1], *[1]Graduate School of Science, Osaka University, Japan; [2] Low Temperature Center, Osaka University, Japan; [3]Graduate School of Engineering Science, Osaka University, Japan; [4]Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [5]KYOKUGEN, Osaka University, Japan; [6]ISSP, University of Tokyo, Japan*

PD14 **Physical properties under pressure in a heavy fermion superconductor $CeIrIn_5$**
Naofumi Aso[1]*, Yuki Tamaki[1], Yoshinao Takaesu[1], Masato Hedo[1], Takao Nakama[1], Kiyoharu Uchima[2], Kazuyuki Matsubayashi[3], Yoshiya Uwatoko[3], Yusuke Ishikawa[4], Kazuhiko Deguchi[4] and Noriaki K. Sato[4] , *[1]Faculty of Science, University of the Ryukyus, Japan; [2]General Education, Okinawa Christian Junior College, Japan; [3]ISSP, University of Tokyo, Japan; [4]Graduate School of Science, Nagoya University, Japan*

PD15 **Periodic Anderson model with correlated conduction electrons**
Imre Hagymasi*, Kazumasa Itai and Jeno Solyom, *Theoretical Solid State Physics, Wigner Research Centre for Physics, Hungarian Academy of Sciences, Hungary*

PD16 **Thermoelectric study of the metamagnetic behavior in $YbCo_2Z_{20}$**
Yo Machida[1], Tohru Ikeura[1], Koichi Izawa[1]*, Shingo Yoshiuchi[2], Fuminori Honda[2], Rikio Settai[2] and Yoshichika Onuki[2], *[1]Department of Physics, Tokyo Institute of Technology, Japan; [2]Department of Physics, Osaka University, Japan*

PD17 **Raman scattering study of the hidden order state of URu_2Si_2**
Jonathan Buhot[1], Marie-aude Measson[1]*, Yann Gallais[1], Maximilien Cazayous[1], Alain Sacuto[1] and Dai Aoki[2]
[1]Laboratoire Materiaux et Phenomenes Quantiques, UMR 7162 CNRS, Universite Paris Diderot, France; [2]SPSMS, UMR-E CEA / UJF-Grenoble 1, INAC, 38054 Grenoble, France

PD18 **The evolution of superconductivity and magnetism in Pd-doped $CeRhIn_5$ and Ce_2RhIn_8**
Marie Kratochvilova*, Klara Uhlirova, Jiri Prchal, Alexandra Rudajevova, Jeroen Custers and Vladimir Sechovsky
Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University, Czech Republic

PD19 **Magnetic phase diagram of the new heavy fermion compound Ce_2PtIn_{81}**
Marie Kratochvilova[1]*, Klara Uhlirova[1], Jiri Prchal[1], Ivana Cisarova[2], Jeroen Custers[1] and Vladimir Sechovsky[1]
[1]Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University, Czech Republic; [2]Department of Inorganic Chemistry, Faculty of Science, Charles University, Czech Republic

PD20 **Coexistence and competition of superconductivity, magnetism and charge density waves in rare-earth tri-telluride $TbTe_3$**
Kazuhiko Deguchi, Hiroaki Iwase, Yuya Imai, Koji Yamamoto and Noriaki Sato, *Department of Physics, Graduate School of Science, Nagoya University, Japan*

PD21 **Magnetic properties of $Ce_3Rh_4Sn_{13}$ and $Ce_3Co_4Sn_{13}$; a comparative study**
Andrzej Slebarski*, Marcin Fijalkowski and Jerzy Goraus, *Institute of Physics, University of Silesia, Poland*

PD22 **Thermoelectric properties of Kondo semiconductor $CeRu_4As_{12}$ prepared under high pressure**
Chihiro Sekine[1]*, Tomokazu Kawata[1], Yukihiro Kawamura[1] and Takehiko Yagi[2], *[1]Graduate School of Engineering, Muroran Institute of Technology, Japan; [2]Institute for Solid State Physics, The University of Tokyo, Japan*

PD23 **Single crystal growth and physical properties of UT_2Al_{20} (T=transition metal)**
Yuji Matsumoto[1], Tatsuma D Matsuda[1], Naoyuki Tateiwa[2], Etsuji Yamamoto[1], Yoshinori Haga[1] and Zachary Fisk[3]
[1]advanced science research center, Japan atomic energy agency, Japan; [2]Japan atomic energy agency, Japan; [3]University of California, USA

PD24 **Anisotropic c-f hybridization in a Kondo semiconductor $CeFe_2Al_{10}$**
Yuji Muro[1], Keisuke Yutani[2], Jumpei Kajino[2], Takahiro Onimaru[2] and Toshiro Takabatake[3], *[1]Liberal Arts and Sciences, Toyama Prefectural University, Kurokawa 5180, Imizu 939-0398, Japan; [2]AdSM, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima 739-8530, Japan; [3]AdSM and IAMR, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima 739-8530, Japan*

PD25 **Cu-NMR studies of heavy-Fermion compound $CeCu_6$ under high magnetic fields**
Keisuke Kuroda, Kyohei Morita, Hisashi Kotegawa, Hitoshi Sugawara and Hideki Tou*, *Department of Physics, Kobe University, Japan*

PE: Kondo Impurity and kondo lattice systems

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Namjung Hur (Inha University, Korea)

PE01 The underscreened Anderson lattice : A model for uranium compounds.
Peter S Riseborough[1]*, Sergio Magalhaes[2] and Bernard Coqblin[3], *[1]Physics, Temple University, USA; [2]Inst. Fis., Univ. Fed. Fluminense, Rio de Janeiro, Brazil; [3]L.P.S., CNRS-Universite Paris-Sud, 91405 Orsay, France*

PE02 Transport properties of intermetallic compounds $RCoGe_2$ (R = Ce and La)
Yung-kang Kuo[1]*, P. C. Chang[2] and C. S. Lue[3], *[1]National Dong Hwa University, Department of Physics, Taiwan[2]Department of Physics, National Dong Hwa University, Taiwan[3]National Cheng Kung University, National Dong Hwa University, Taiwan*

PE03 The lattice Kondo effect - A fabric for superconducting correlations?
Oliver Bodensiek[1]*, Thomas Pruschke[1] and Rok Zitko[2], *[1]Department of Physics, University of Goettingen, 37077 Goettingen, Germany; [2]Jozef Stefan Institute, Jamova 39, SI-1000 Ljubljana, Slovenia*

PE04 Lifshitz transition with interactions in high magnetic fields: application to $CeIn_3$
Pedro Schlottmann*, *Department of Physics, Florida State University, USA*

PE05 Dynamical mean-field theory of indirect exchange between magnetic adatoms on metallic surfaces
Irakli Titvinidze*, Andrej Schwabe, Niklas Rother and Michael Potthoff, *I. Institute of theoretical physics, University of Hamburg, Germany*

PE06 Kondo effect near the Van Hove singularity in biased bilayer graphene
Stanislaw Lipinski* and Damian Krychowski, *Institute of Molecular Physics, Polish Academy of Sciences, Poland*

PE07 Indirect exchange between magnetic atoms on surfaces: From two impurities to diluted chains
Andrej Schwabe*, Irakli Titvinidze, Daniel Gutersloh, Anke Braun and Michael Potthoff, *I. Institute of theoretical physics, University of Hamburg, Germany*

PE08 ESR study of hybridization in some undoped Yb-based alloys
Vladimir Ivanshin*, Tatyana Litvinova and Eduard Gataullin, *Institute of Physics, Kazan University, Russia*

PE09 ESR study of influence of anionic and cationic substitutions in EuB6 on the magnetic phase separation
Tatiana Semenovna Altshuler[1]*, Yuriy Vladimirovich Goryunov[1], Anna Vasilievna Levchenko[2] and Vladimir Borisovich Filippov[2], *[1]Russian Academy of Sciences, Kazan Physical-Technical Institute, Russia; [2]National Acade*

PE10 High pressure synthesis of novel boron-cage compounds RB_{12} (R=Gd, Sm)
Fumitoshi Iga[1]*, Yusaku Egashira[2], Tomoaki Noguchi[2], Toshiro Takabatake[2], Akinori Kondo[3], Koichi Kindo[3], Shoji Yamanaka[4], Kei Inumaru[4], Norimasa Nishiyama[5], Tetsuo Irifune[5] and Hitoshi Yusa[6], *[1]Faculty of Science, Ibaraki University, Japan; [2]Graduate School of ADSM, Hiroshima University, Japan; [3]Institute for Solid State Physics, University of Tokyo, Japan; [4]Graduate School of Engineering, Hiroshima University, Japan;[5]Geodynamics Reaearch Center, Ehime University, Japan; [6]High pressure Science, National Institute Material Sciences, Japan*

PE11 Magnetic anisotropy of tetragonal rare-earth compounds RRu_2Al_2B (R: rare-earth metals)
Eiichi Matsuoka[1]*, Yo Tomiyama[1], Kotaro Iwasawa[1], Hitoshi Sugawara[1], Takahiro Sakurai[2] and Hitoshi Ohta[3]
[1]Department of Physics, Graduate School of Science, Kobe University, Japan; [2]Center for Supports to Research and Education Activities, Kobe University, Japan; [3]Molecular Photoscience Research Center, Kobe University, Japan

PE12 Collective magnetic resonance mode in CeB_6
A. V. Semeno[1]*, V. V. Glushkov[1], N. E. Sluchanko[1], N. Yu. Shitsevalova[2], V. B. Filipov[2], A. V. Dukhnenko[2] and S. V. Demishev[1], *[1]A.M.Prokhorov General Physics Institute RAS, Russia; [2]Institute for Problems of Materials Science NAS, Ukraine*

PE13 Transport and magnetic properties of $CeFe_4Sb_{12}$ synthesized under high pressure
Hitoshi Sugawara[1]*, Masahito Sakoda[1], Eiichi Matsuoka[1], Takashi Saito[2], Sho Tatsuoka[2], Kenya Tanaka[2] and Hideyuki Sato[2], *[1]Department of Physics, Kobe University, Japan; [2]Department of Physics, Tokyo Metropolitan University, Japan*

PE14 Interplay of Kondo effect and spin orbit coupling
Kalobaran Maiti*, Swapnil Patil, V R R Medicherla, R S Singh and E V Sampathkumaran, *Department of Condensed Matter Physics, Tata Institute of Fundamental Research, India*

PE15 Insulator-to-metal transition and magnetism of potassium metals loaded into regular cages of zeolite LSX
Takehito Nakano[1], Duong Thi Hanh[1], Nguyen Hoang Nam[2], Yasuhiro Owaki[1], Shingo Araki[3] and Yasuo Nozue[1]*
[1]Department of Physics, Graduate School of Science, Osaka University, Japan; [2]Hanoi University of Science, Viet Nam; [3]Graduate School of Natural Science and Technology, Okayama University, Japan

PE16 1/(N-1) expansion for a finite U Anderson model with an SU(N) symmetry
Akira Oguri[1] and Rui Sakano[2], *[1]Physics, Osaka City University, Japan; [2]Applied Physics, University of Tokyo, Japan*

PE17 Formation of the Kondo resonance band in $CeCoGe_2$: DFT+DMFT approach
Hong Chul Choi[1], B. I. Min[2], K. Halue[3], G. Kotliar[3] and J. H. Shim[1]*, *[1]Department of Chemistry, Pohang University of Science and Technology, Korea; [2]Department of Physics, Pohang University of Science and Technology, Korea; [3]Department of Physics, Rutgers University, USA*

PE18 Charge ordering in the Kondo lattice model at quarter filling
Junki Yoshitake*, Takahiro Misawa and Yukitoshi Motome, *Department of Applied Physics, The University of Tokyo, Japan*

PE19 Angular-dependent magnetoresistance of the filled skutterudite $CeOs_4As_{12}$
Łukasz Bochenek*, Zygmunt Henkie and Tomasz Cichorek, *Division of Magnetic Research, Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wroclaw, Poland, Poland*

PF: Theory of strongly correlated matter I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Takashi Oka (The University of Tokyo, Japan)

PF01 Spin and charge correlation of electrons at variation of interorbital Coulomb interaction
Sergey Stepanovich Aplesnin[1] and Nataly Ivanovna Piskunova[2], *[1]M.V. Reshetnev Siberian State Aerospace University, Russia; [2]Omsk State Agrarian University, Russia*

PF02 Superfluid state of repulsively interacting three-component fermionic atoms in optical lattices
Seiichiro Suga[1]* and Kensuke Inaba[2], *[1]University of Hyogo, Japan; [2]NTT Basic Research Laboratories and JST CREST, Japan*

PF03 Magnetism in complex oxides: A challenge for advanced ab-initio methods.
Alessio Filippetti, *Dept. of Physics, CNR-IOM, University of Cagliari, Italy*

PF04 Resonating Hartree-Fock Studies for spin fluctuations in the Hubbard model on triangular lattice
Norikazu Tomita*, *Yamagata University, Japan*

PF05 Theory of momentum-dependent variational ansatz to strongly correlated electron system
M. Atiqur R. Patoary* and Yoshiro Kakehashi, *Univ. of the Ryukyus, Nishihara, Okinawa, Japan*

PF06 Metal-insulator transition in orthorhombic Perovksite $PbRuO_3$
Young-joon Song[1] and Kwan-woo Lee[2]*, *[1]Department of Applied Physics, Graduate School, Korea University, Sejong, Korea; [2]Department of Display and Semiconductor Physics, Korea University, Sejong, Korea*

PF07 (Withdrawn) Ferromagnetic semiconductor-metal transition in heterostructures of europium monoxide
Tobias Stollenwerk* and Johann Kroha, *Physikalisches Institut, University of Bonn, Germany*

PF08 The temperature dependence of the staggered magnetisation in itinerant weak antiferromagnets
Nobukuni Hatayama[1], Rikio Konno[1]* and Yoshinori Takahashi[2], *[1]Kinki University Technical College, Japan; [2]Graduate School of Material Science, University of Hyogo, Japan*

PF09 Theory of excitonic insulator in the two orbital Hubbard model: Variational cluster approach
Tatsuya Kaneko[1]*, Kazuhiro Seki[1], Satoshi Nishimoto[2] and Yukinori Ohta[1], *[1]Department of Physics, Chiba university, Japan; [2]Institut fur Theoretische Festkorperphysik, IFW Dresden, Germany*

PF10 Layered chalcogenide Ta_2NiSe_5 as a candidate for excitonic insulators - theoretical aspects
Tatsuya Kaneko[1]*, Tatsuya Toriyama[1], Takehisa Konishi[2] and Yukinori Ohta[1], *[1]Department of Physics, Chiba university, Japan; [2] Graduate School of Advanced Integration Science, Chiba university, Japan*

PF11 Electric dipolar susceptibility of the Anderson-Holstein model
Takahiro Fuse* and Takashi Hotta, *Department of Physics, Tokyo Metropolitan University, Japan*

PF12 Insulator version of the double-exchange ferromagnetism
Yukinori Ohta[1]*, Satoshi Nishimoto[2] and Kyohei Nakano[1], *[1]Department of Physics, Chiba University, Japan; [2]Institute for Theoretical Solid State Physics, IFW-Dresden, Germany*

PF13 Metallic ferromagnetism in the 3D Hubbard model at finite temperature
Andre Neves Ribeiro and Claudio Andrade Macedo*, *Departamento de Fisica, Universidade Federal de Sergipe, Brazil*

PF14 BCS-BEC crossover in the extended Falicov-Kimball model: Variational cluster approach
Kazuhiro Seki[1]*, Robert Eder[2] and Yukinori Ohta[1], *[1]Department of Physics, Chiba University, Japan; [2]Institut fuer Festkoerperphysik, Karlsruhe Institute of Technology, Germany*

PF15 Theory of the metal-insulator transition and charge/orbital states in V_6O_{13}
Takayoshi Nakayama[1]*, Tatsuya Toriyama[1], Takehisa Konishi[2] and Yukinori Ohta[1], *[1]Department of Physics, Chiba University, Japan; [2]Graduate School of Advanced Integration Science, Chiba University, Japan*

PF16 Statistical dynamical mean field study of correlated fermions with disorder
Masaru Sakaida*, Kazuto Noda and Norio Kawakami, *Kyoto university, Japan*

PF17 Analysis of many-body effects on anisotropic magnetic properties of YbB_{12}
Yoshihiro Kikuchi*, Yoshiki Imai and Tetsuro Saso, *Department of Physics, Saitama University, Japan*

PF18 The ground state energies of spinless free fermions and hard-core bosons in 2D square lattices
Wenxing Nie[1] and Masaki Oshikawa[2]*, *[1]The Institute for Solid State Physics, The University of Tokyo, Japan; [2]The institute for Solid State Physics, The University of Tokyo, Japan*

PF19 Correlation effect in ferromagnetic 3d transition metals
Muneyuki Nishishita[1], Sudhakar Pandey[2] and Dai Hirashima[1]*, *[1]Nagoya University, Japan; [2]APTPC, Korea*

PG: Magnetic materials and characterization methods

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Clemens Ritter (Institut Laue Langevin, France)

PG01 Ferrimagnetic compensation in a $Fe_{64}Er_{19}B_{17}$ glass, - the head of a dandelion, or the spokes of a wheel?
Andrew R. Wildes[1]*, Neil Cowlam[2] and Nourh A. Al-senany[3], *[1]Institut Laue-Langevin, BP 156, 6 rue jules Horowitz, 38042 GRENOBLE Cedex 9, France; [2]Department of Physics and Astronomy, University of Sheffield, SHEFFIELD, S3 7RH, United Kingdom; [3]Department of Physics and Astronomy, University of Sheffield, SHEFFIELD, S3 7RH, King Abdulaziz University, Jeddah, Saudi Arabia, United Kingdom*

PG02 Evolution of reverse magnetized seed in monodomain uniaxial garnet film elements
Vladimir Skidanov*, *Nanoelectronics and Spintronics Department, Institute for Design Problems in Microelectronics RAS, Russia*

PG03 Re-entrant structure and critical behaviour of Fe-Cr and Fe-V sigma-phase alloys
Reginaldo Barco[1], Paulo Pureur[1], G L F Fraga[1] and Stanislaw M Dubiel[2], *[1]Physics, UFRGS Porto Alegre, Brazil; [2]Physics and Applied Computer Science, AGH University Krakow, Poland*

PG04 Pressure effects in the ferromagnetic shape memory alloys $Ni_2Mn_{1-x}Cu_xGa$
Tomoya Miura[1], Yoshiya Adachi[1]*, Keita Endo[2], Ryosuke Kainuma[2] and Takeshi Kanomata[3], *[1]Graduate School of Science and Engineering, Yamagata University, Japan; [2]Department of Materials Science, Tohoku University, Japan; [3]Faculty of Engineering, Tohoku Gakuin University, Japan*

PG05 Electronic state of Cr and collapse-like decrease of Fe magnetic moment in amorphous (Fe-Cr)B alloys
Kazuo Yano[1]*, Tastuo Kamimori[2], Hiroaki Kanetsuki[2], Hatsuo Tange[2], Masayoshi Itou[3], Yoshiharu Sakurai[3], Eiji Kita[4] and Hiromitsu Ino[5], *[1]College of Science and Technology, Nihon University, Japan; [2]Faculty of Science, Ehime University, Japan; [3]JASRI/SPring8, Japan; [4]Applied Physics, University of Tsukuba, Japan; [5]Faculty of Engineering, University of Tokyo, Japan*

PG06 Micromagnetic simulation of CNT-MFM probes under magnetic field
Takashi Manago[1]*, Hironori Asada[2] and Hiromi Kuramochi[3], *[1]Department of Applied Physics, Fukuoka university, Japan; [2]Graduate School of Science and Engineering, Yamaguchi university, Japan; [3]International Center for Materials Nanoarchitectonics, National Institute for Materials Science(NIMC), Japan*

PG07 Pressure effect of metamagnetic shape memory alloy $Pd_2Mn_{1+x}Sn_{1-x}$
Yohei Yamazaki[1], Takamitsu Akama[2], Hironari Okada[1]*, Takeshi Kanomata[1] and Ryosuke Kainuma[3], *[1]Division of Engineering Graduate School, Tohoku Gakuin University, Japan; [2]Faculty of Engineering, Tohoku Gakuin University, Japan; [3]Graduate School of Engineering, Tohoku University, Japan*

PG08 Engineering of Co atomic 1-D chains on Ag(111) with tailored magnetic ground state
David Serrate[1]*, Maria Moro[1], Marten Piantek[2], Jose Ignacio Pascual[3] and Manuel Ricardo Ibarra[1], *[1]Instituto de Nanociencia de Aragon, University of Zaragoza, Spain; [2]Instituto de Ciencia de Materiales de Aragon, CSIC-University of Zaragoza, Spain; [3]Institut fur Experimentalphysik, Freie Universitat Berlin, Germany*

PG09 Pressure-induced suppression of magnetic ordering in a chiral magnet $Cr_{1/3}NbS_2$
Takumi Imakyurei[1], Kousuke Nagai[1], Masaki Mito[1], Hiroyuki Deguchi[1], Jun-ichiro Kishine[1], Takayuki Tajiri[2], Katsuya Inoue[3], Yuya Nakao[4], Yusuke Kousaka[4] and Jun Akimitsu[4], *[1]Faculty of Engineering, Kyushu Institute of Technology, Japan; [2]Faculty of Science, Fukuoka University, Japan; [3]Department of Chemistry and Institute for Advanced Materials Research, Hiroshima University, Japan; [4]Department of Physics and Mathematics, Aoyama-Gakuin University, Japan*

PG10 Multiple ESR spectra in a chiral molecule-based magnet $[Cr(CN)_6][Mn(R)\text{-}pnH(H_2O)](H_2O)$
Takuma Nagano[1], Masaki Mito[1], Seishi Takagi[1], Hiroyuki Deguchi[1], Jun-ichiro Kishine[1], Yusuke Yoshida[2] and Katsuya Inoue[2], *[1]Faculty of Engineering, Kyushu Institute of Technology, Japan; [2]Department of Chemistry and Institute for Advanced Materials Research, Hiroshima University, Japan*

PG11 Valence and spin structures of TFe2O4 spinel oxides (T=Mn, Co, Ni, Cu) investigated by using synchrotron radiation
Jihoon Hwang[1], D. H. Kim[1], Eunsook Lee[1], J.-s. Kang[1], B.-g. Park[2], J.-y. Kim[2], S. W. Han[3], S. C. Hong[3], S. B. Kim[4], Bongjae Kim[5] and B. I. Min[5], *[1]Department of Physics, The Catholic University of Korea (CUK), Bucheon 420-743, Korea; [2]Pohang Accelerator Laboratory, POSTECH, Pohang 790-784, Korea; [3]Department of Physics, Ulsan University, Ulsan 680-749, Korea; [4]ACE center, Konyang University, Nonsan 320-711, Korea; [5]Department of Physics, POSTECH, Pohang 790-784, Korea*

PG12 **Probing the distance dependence of the magnetic exchange interaction with atomic resolution**
Alexander Schwarz[1]*, Rene Schmidt[1], Roland Wiesendanger[1], Cesar Lazo[2] and Stefan Heinze[3], *[1]Institute of Applied Physics, University of Hamburg, Germany; [2]Christian-Albrechts Universitat zu Kiel, Germany; [3]Christian-Albrechts-Universitat zu Kiel, Germany*

PG13 **Electron correlation in a mixed valence perovskite system of $Sr_{1-x}Ca_xRu_{0.5}Mn_{0.5}O_3$**
Tomohiro Ohnishi[1], Soichiro Mizusaki[1], Makoto Naito[1], Yoshihiko Noro[2], Masayoshi Itou[3], Yoshiharu Sakurai[3] and Yujiro Nagata[1], *[1]Electrical Engineering and Electronics, Aoyama Gakuin Univ., Japan; [2]Kawazoe Frontier Technologies Co. Ltd., Japan; [3]Japan Synchrotron Radiation Research Institute, Japan*

PG14 **An x-ray scattering study of magnetic order in a pyrochlore iridate $Eu_2Ir_2O_7$**
Daisuke Uematsu[1]*, Hajime Sagayama[1], Taka-hisa Arima[1], Jun J Ishikawa[2] and Satoru Nakatsuji[2], *[1]Department of Advanced Materials Science, The University of Tokyo, Japan; [2]Institute of Solid State Physics, The University of Tokyo, Japan*

PG15 **Magnetic structure analyses by small-angle electron diffraction**
Yoshihiko Togawa[1]*, Tsukasa Koyama[2], Shigeo Mori[2] and Ken Harada[2], *[1]Nanoscience and Nanotechnology Research Center (N2RC), Osaka Prefecture University, Japan; [2]Department of Materials Science, Osaka Prefecture University, Japan*

PG16 **Raman scattering of metal-insulator transition in $Cd_2Os_2O_7$**
Takumi Hasegawa[1]*, Norio Ogita[1], Jun-ichi Yamaura[2], Zenji Hiroi[2] and Masayuki Udagawa[1], *[1]Graduate School of Integrated Arts and Sciences, Hiroshima University, Higashi-Hiroshima, Hiroshima 739-8521, Japan; [2]Institute for Solid State Physics, The University of Tokyo, Kashiwa, Chiba 277-8581, Japan*

PG17 **Effects of impurities in the chromic compound $CuMoO_4$**
Takayuki Asano[1]*, Taizo Nishimura[1], Katsutaka Kubo[1], Minoru Sanda[1], Keisuke Matsuura[1], Akira Matsuo[2], Yasuo Narumi[3] and Koichi Kindo[2], *[1]Department of Physcs, Kyushu University, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan; [3]Institute for Materials Research, Tohoku University, Japan*

PG18 **Effective exchange interactions in 5d transition metal oxides**
Tomonori Shirakawa*, Hiroshi Watanabe and Seiji Yunoki, *Computational Condensed Matter Physics Laboratory, RIKEN, Japan*

PG19 **Magnetic and electrical transport behavior of Ir substituted NiTi shape memory alloy**
Sandhya Dwevedi* and A.k Nigam, *Department of Condensed Matter Physics and Material Sciences, Tata Institute of Fundamental Research(TIFR), Mumbai 400 005, India*

PG20 **X-ray diffuse scattering of pyrochlore niobium oxides $R_2Nb_2O_7$**
Shingo Toyoda[1], Hajime Sagayama[1], Kunihisa Sugimoto[2] and Takahisa Arima[1]*, *[1]Department of Advanced Materials Science, The University of Tokyo, Japan; [2]SPring-8, Japan*

PG21 **Freezing of local lattice strains in the magnetic martensitic/ferroelastic material system**
Yu Wang*, Chonghui Huang, Xiaoping Song and Xiaobing Ren, *Xi'an Jiaotong University, China*

PG22 **Magnetic structure of the new chiral compound $[Cr(CN)_6][Mn(S)\text{-}pnH(DFM)](H_2O)$**
Cristina Saenz De Pipaon[1], Javier Campo[1]*, Fernando Palacio[1], Jose Alberto Rodriguez-velamazan[1], Katsuya Inoue[2] and Hiroyuki Honda[2], *[1]Materials Science Institute of Aragon (CSIC-University of Zaragoza), Spain; [2]Hiroshima University, Japan*

PG23 **Origin of spin scalar chiral order in frustrated Kondo lattice model - higher-order Kohn anomaly and hidden positive biquadratic interaction -**
Yutaka Akagi[1]*, Masafumi Udagawa[2] and Yukitoshi Motome[1], *[1]University of Tokyo, Japan; [2]University of Tokyo, MPI PKS, Japan*

PG24 **Doping effects on the metal-insulator transition of Li_2RuO_3**
Seongil Choi[1], Junghwan Park[1], Sanghyun Lee[1], Deo-kyong Cho[1], T. Morioka[2], H. Nojiri[2] and J.- G. Park[3]*, *[1]Center for Strongly Correlated Materials Research, Seoul National University, Seoul 151-742, Korea; [2]Institute for Materials Research, Tohoku University, Sendai 980-8577, Japan; [3]Department of Physics & Astronomy, Seoul National University, Seoul 151-742, Korea*

PG25 **Ferromagnetism in hydrothermally treated glassy carbon**
Hyun Jin Cho, Kyu Won Lee and Cheol Eui Lee*, *Department of physics and institute for Nano Science, Korea University, Korea*

PG26 **On the structure and symmetry of the spin glass state (SGS)**
Jerzy Warczewski*, Pawel Gusin and Daniel Wojcieszyk, *Institute of Physics, University of Silesia, Poland*

PG27 **Magnetic study of Fe/MgO/Fe and Fe/MgO/Fe/Co multilayer systems**
Jitendra Pal Singh[1], Sanjeev Gautam[2], K Asokan[1], D. Kabiraj[1], D. Kanjilal[1], M Raju[3], Braj Bhusan Singh[4], S. Chaudhary[3], R. Kotnala[4] and Keun Hwa Chae[2]*, *[1]Inter University Accelerator Centre, Aruna Asaf Ali Marg-110067, New Delhi, India;[2]Advanced Analysis Center, Korea Institute of Science and Technology (KIST), Seoul 136-791, Korea; [3]Department of Physics, Indian Institute of Technology, New Delhi - 110 016, India; [4]National Physical Laboratory, Dr. K. A. Krishanan Marg, New Delhi -110 012, India*

PH: 3d transition metal oxides I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)

Chairperson: Jung Hoon Han (Sungkyunkwan University, Korea)

PH01 **Ionic size effect on the spin gap nature of $SrCu_2(TeO_3)_2Cl_2$**
C. N. Kuo, S. C. Chen and C. S. Lue*, *Department of Physics, National Cheng Kung University, Tainan 70101, Taiwan*

PH02 **Magnetism of $SrM_3P_4O_{14}$ (M^{2+} = 3d ions) investigated using neutron-scattering measurements**
Masashi Hase[1]*, Vladimir Yu. Pomjakushin[2], Lukas Keller[2], Andreas Doenni[1], Osamu Sakai[1], Tao Yang[3], Rihong Cong[3], Jianhua Lin[3], Kiyoshi Ozawa[1] and Hideaki Kitazawa[1], *[1]National Institute for Materials Science (NIMS), Japan; [2]Paul Scherrer Institut (PSI), Switzerland; [3]Peking University, China*

PH03 **Spin-Peierls-like lattice distortion and incommensurate magnetic structure of geometrically frustrated spinel $CdCr_2O_4$**
J. H. Chung[1], J. M. S. Park[2], K. P. Hong[2], M. Matsuda[3], H. Ueda[4], Y. Ueda[4] and S. H. Lee[5]*, *[1]Department of Physics, Korea University, Korea; [2]Korea Atomic Energy Research Institute, Korea; [3]Oak Ridge National Laboratory, Korea; [4]The University of Tokyo, Japan; [5]University of Virginia, USA*

PH04 **Interplay of magnetic order and structural distortions in multiferroic $GdMnO_3$ single crystals**
Mathias Doerr[1]*, Sahana Roessler[2], Martin Rotter[2], Aditya A. Wagh[3], P. S. Anil Kumar[3], Suja Elizabeth[3], Steffen Wirth[2] and Michael Loewenhaupt[1], *[1]Institut fur Festkorperphysik (IFP), Technische Universitat Dresden, Germany; [2]Max-Planck-Institut fur Chemische Physik fester Stoffe Dresden, Germany; [3]Department of Physics, Indian Institute of Science Bangalore, India*

PH05 **Uniaxial pressure effect on magnetic ordering in a frustrated ising antiferromagnet $CoNb_2O_6$**
Satoru Kobayashi[1]*, Hiromu Tamatsukuri[2], Chikafumi Kaneko[2], Yuki Honma[2], Taro Nakajima[2] and Setsuo Mitsuda[2], *[1] Department of Materials Science and Engineering, Iwate University, Japan; [2] Department of Physics, Faculty of Science, Tokyo University of Science, Japan*

PH06 **Thermal and magnetic properties of $LiNiPO_4$ olivine**
J. Wieckowski[1]*, M. U. Gutowska[1], A. Szewczyk[1], Yu. Kharchenko[2], M. F. Kharchenko[2], M. Kowalczyk[3], N. Nedelko[1], S. Lewinska[1], A. Slawska - Waniewska[1], A. Kulka[4] and J. Molenda[4], *[1]Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; [2]B.Verkin Inst. for Low Temp. Phys. and Engineering, National Academy of Sciences of Ukraine, Kharkiv, Ukraine; [3]Faculty of Materials Engineering, Warsaw University of Technology, Warsaw, Poland; [4]Department of Hydrogen Energy, AGH University of Science and Technology, Cracow, Poland*

PH07 **Cr- and mo-doping effects on structural and orbital order phase transition in spinel-type MnV_2O_4**
Kazuhiro Hemmi[1]*, Ryuichiro Fukuta[1], Ece Uykur[1], Shigeki Miyasaka[1], Setsuko Tajima[1], Akiko Nakao[2], Hironori Nakao[2], Reiji Kumai[2] and Youichi Murakami[2], *[1]Physics, Osaka University, Japan; [2]PF/CMRC, KEK, Japan*

PH08 **Dopant-dependence on charge/orbital order in impurity doped layered manganites**
Yuki Yamaki[1], Hironori Nakao[2], Yuichi Yamasaki[2], Youichi Murakami[2], Yoshio Kaneko[3] and Yoshinori Tokura[4], *[1]Tohoku University CMRC/PF, KEK, Japan; [2]CMRC/PF, KEK, Japan; [3]ERATO-MF, JST CERG, RIKEN, Japan; [4]ERATO-MF, JST CERG/CMRG, RIKEN University of Tokyo, Japan*

PH09 **Magnetic and nonmagnetic impurity effect on magnetic orderings of isosceles triangular lattice antiferromagnet $CuMnO_2$**
Noriki Terada[1], Yoshinori Tsuchiya[1], Hideaki Kitazawa[1] and Naoto Metoki[2], *[1]National Institute for Materials Science, Japan; [2] apan Atomic Research Agency, Japan*

PH10 **Resonant soft X-ray scattering studies on half-doped manganite $LaSr_2Mn_2O_7$**
J.-S. Lee[1]*, C.-C. Kao[1], C.S. Nelson[2], H. Jang[3], K.-T. Ko[3], S.B. Kim[4], Y.J. Choi[4], S.W. Cheong[4], S. Smadici[5], P. Abbamonte[5] and J.-H. Park[3], *[1]SSRL, SLAC National Accelerator Laboratory, USA; [2]BNL, USA; [3]POSTECH, Korea; [4]Rutgers university, USA; [5]UIUC, USA*

PH11 **On the non-idle-spin behavior and the field-induced magnetic transitions of the trimer chain magnet $Cu_3(OH)_4SO_4$**
Hyun-joo Koo[1], Reinhard K Kremer[2] and Myung-hwan Whangbo[3], *[1]Chemistry, Kyung Hee University, Korea; [2]Max-Planck-Institut fur Festkorperforschung, Stuttgart, Germany; [3]Chemistry, North Carolina State University, USA*

PH12 **Spin state of $LaCoO_3$ investigated from non-magnetic-ion substitution effect of Co sites**
Shinichiro Asai*, Ryuji Okazaki, Yukio Yasui and Ichiro Terasaki, *Department of Physics, Nagoya University, Japan*

PH13 (Upgraded to oral) **First-Principles Calculation of the A-Site Ordered Perovskite $CaCu_3Fe_4O_{12}$**
Takuya Ueda[1], Mitsuru Kodera[1], Kunihiko Yamauchi[1] and Tamio Oguchi[2]*, *[1]Osaka University, Japan; [2]Osaka University & JST-CREST, Japan*

PH14 **Soft x-ray absorption spectroscopy study of Prussian blue analogue $MCo[Fe(CN)_6]H_2O$ Nano-particles (M=Na, K, Rb)**
Eunsook Lee[1], D.h. Kim[1], Jihoon Hwang[1], Nguyen Van Minh[2], In-sang Yang[3], M. Sawada[4], T. Ueno[4] and J.-S. Kang[1]* *[1]Department of Physics, The Catholic University of Korea, Bucheon 420-743, Korea; [2]Department of Physics, Hanoi National Uninersity of Education, Hanoi, Viet Nam; [3]Department of Physics, Ewha Womans University, Seoul 120-750, Korea; [4]Hiroshima Synchrotron Radiation Center, Hiroshima University, Higashi-Hiroshima 739-0046, Japan*

PH15 **Long-time variation of magnetic structure in multistep metamagnets $Ca_3(Co\text{-}M)_2O_6$: Effect of disorder**
Taketo Moyoshi*, Rui Takahashi, Yuichiro Ito, Ryotaro Irie, Tetsuto Ide, Daiki Syoji and Kiyoichiro Motoya, *Faculty of Science and Technology, Tokyo University of Science, Japan*

PH16 **Study of magnetic properties of $NdCo_{1-x}Ni_xO_3$ (x = 0, 0.2, 0.4)**
Ravi Kumar[1], Vinod Kumar[2], Rajesh Kumar[3], Dinesh Kumar Shukla[4], Sunil Kumar Arora[5] and I V Schvets[6], *[1]Centre for Materials Science and Engineering, National Institute of Technology, Hamirpur 177005 (H.P.), India; [2]Department of physics, National Institute of Technology, Hamirpur 177005 (H.P.), India; [3]Department of physics, National Institute of Technology, Hamirpur 177005 (H.P.), India; [4]Deutshes Electronen Synchrotron DESY, 22607 Hamburg, Germany, Deutshes Electronen Synchrotron DESY, 22607 Hamburg, Germany; [5]School of Physics, Trinity College Dublin 2, 3School of Physics, Trinity College Dublin 2, Ireland; [6]School of Physics, Trinity College Dublin 2, School of Physics, Trinity College Dublin 2, Ireland*

PH17 **Fluctuations of charge, orbital, and spin order in single layer manganite $Pr_{0.5}Ca_{1.5}MnO_4$**
Ismudiati Puri Handayani[1]*, Agung Nugroho[2], Nandang Mufti[3], Syarif Riyadi[1], May On Tjia[2], T.t.m Palstra[1] and P.h.m Van Loosdrecht[1], *[1]Zernike Institute for Advanced Material, Netherlands; [2]Bandung Institute of Technology, Indonesia; [3]State University of Malang, Indonesia*

PH18 **Magnetic properties of spinel oxide $CuCr_2O_4$ investigated by NMR**
Euna Jo, Soonchil Lee*, Changsoo Kim, Byeongki Kang and Sangil Kwon, *Physics, KAIST, Korea*

PH19 **Magnetic frustration effects in the new colossal magnetoresistance oxide $NaCr_2O_4$**
Hikaru Takeda[1]*, Yasuhiro Shimizu[1], Masayuki Itoh[1], Hiroya Sakurai[2] and Eiji Takayama- Muromachi[2], *[1]Department of Physics, Graduate School of Science, Nagoya University, Japan; [2]National Institute for Materials Science, Japan*

PH20 **Site-dependent metal-insulator transition and orbital order in quasi-one-dimensional V_6O_{13}**
Satoshi Aoyama[1], Yasuhiro Shimizu[1], Masayuki Itoh[2]* and Yutaka Ueda[3], *[1]Department of Physics, Graduate School of Science, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Japan; [2]Department of Physics, Graduate School of Science, Nagoya University, Japan; [3]Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Japan*

PH21 **Synthesis and characterization of $CoMn_2O_4$ nanopowders by a reverse Micelle processing**
Hojung Kim and Dong Sik Bae*, *Department of Convergence Materials Science and Engineering, Changwon National Univ., Korea*

PH22 **The patterning with a circular magnet array, its observation and domain switching in ferromagnetic ZnCoO:H**
Won-kyung Kim, Seunghun Lee, Sang-uk Cho, Yong-chan Cho, Hideomi Koinuma and Se-young Jeong*, *Cogno-Mechatronics Engineering, Pusan National University, Korea*

PH23 **Orbitally induced molecule formations in itinerant triangular vanadates**
Yasuhiro Shimizu[1]*, Ken-ichiro Matsudaira[1], Masayuki Itoh[1] and Yutaka Ueda[2], *[1]Nagoya University, Japan; [2]University of Tokyo, Japan*

PI: 3d transition metal oxides II

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Darren Peets (MPI, Germany)

PI01 **Investigation of magnetocaloric effect in $La_{0.45}Pr_{0.25}Ca_{0.3}MnO_3$ by differential scanning calorimetry and thermal analysis**
Aparnadevi M, Sujit Kumar Barik and Ramanathan Mahendiran*, *Department of Physics, National university of Singapore, Singapore*

PI02 **Specific heat and magnetic properties of spinel compound FeV_2O_4**
Shogo Kawaguchi*, Yoshiki Kubota and Hiroki Ishibashi ,*Department of Physical Science, Graduate School of Science, Osaka Prefecture University, Japan*

PI03 The crossover to checkerboard charge order: Magnetic excitations of charge-stripe ordered of $La_{2-x}Sr_xNiO_4$
Paul G Freeman[1], A. T. Boothroyd[2], D. Prabhakaran[2], K. Hradil[3], R. A. Mole[4] and S. R. Giblin[5], *[1]Helmholtz-Zentrum Berlin, Germany; EPFL, Lausanne, Switzerland; ILL, Grenoble, France;[2]Department of Physics, Oxford University, United Kingdom; [3]Technische Universitat Wien, Austria; Institut fur Physikalische Chemie, Universitat Gottingen, Germany; [4]Bragg Institute, ANSTO, Australia; FRM II, Germany; [5]ISIS Facility, Rutherford Appleton Laboratory, United Kingdom*

PI04 Magnetic properties of low-dimensional α and γ CoV_2O_6
Marc Lenertz*, Jonathan Alaria, Daniel Stoeffler, Silviu Colis and Aziz Dinia, *DCMI, Institut de Physique et Chimie des Materiaux de Strasbourg, CNRS - Universite de Strasbourg, France*

PI05 Structural and magnetic properties of the parent compound T'-La_2CuO_4 of electron-doped cuprates
Gwendolyne Pascua[1], Hubertus Luetkens[1], Marco Guenther[2], Roland Hord[3], Lukas Keller[4], Vladimir Pomjakushin[4], Andreas Suter[1], Hemke Maeter[2], Alexander Buckow[5], Barbara Albert[3], Hans-henning Klauss[2] and Lambert Alff[5] *[1]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland; [2]Institut fuer Festkoerperphysik, TU Dresden, DE-01069 Dresden, Germany; [3]Eduard-Zintl-Institute of Inorganic and Physical Chemistry, TU Darmstadt, Petersenstr. 18, DE-64287, Darmstadt, Germany; [4]Laboratory for Neutron Scattering, Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland; [5]Institute of Materials Science, TU Darmstadt, Petersenstr. 23, DE-64287 Darmstadt, Germany*

PI06 Microscopic magnetic nature of the quasi-one-dimensional antiferromagnet $BaCo_2V_2O_8$
Martin Mansson[1]*, Krunoslav Prsa[1], Jun Sugiyama[2], Hiroshi Nozaki[2], Alex Amato[3], Shojiro Kimura[4], Kumiko Omura[5], Masayuki Hagiwara[5] and Andrey Zheludev[1], *[1]Lab. for Solid State Physics, ETH Zurich, Switzerland; [2]Toyota Central Research and Development Labs. Inc., Japan; [3]LMU, Paul Scherrer Institut, Switzerland; [4]Institute for Materials Research, Tohoku University, Japan; [5]KYOKUGEN, Osaka University, Japan*

PI07 Detection of orbital wave in YVO_3 using inelastic neutron scattering
Daichi Kawana[1], Youichi Murakami[1], Tetsuya Yokoo[2], Shinichi Itoh[2], Andrei T Savici[3], Garrett E Granroth[3], Kazuhiko Ikeuchi[4], Hironori Nakao[1], Kazuaki Iwasa[5], Ryuichiro Fukuta[6], Shigeki Miyasaka[6], Setsuko Tajima[6], Sumio Ishihara[5] and Yoshinori Tokura[7], *[1]Condensed Matter Research Center, Institute of Materials Structure Science, KEK, Japan; [2]Neutron Science Division, Institute of Materials Structure Science, KEK, Japan; [3]Neutron Scattering Sciences Division, Oak Ridge National Laboratory, USA; [4]Comprehensive Research Organization for Science and Society, Japan; [5]Department of Physics, Tohoku University, Japan; [6]Department of Physics, Osaka University, Japan; [7]Department of Applied Physics, University of Tokyo, Japan*

PI08 Orbital occupation and magnetism of tetrahedrally coordinated Fe in $CaBaFe_4O_7$
Nils Hollmann[1], Martin Valldor[2], Hua Wu[2], Zhiwei Hu[1], Navid Qureshi[2], Thomas Willers[2], Yi-ying Chin[3], Julio Cezar[4], Arata Tanaka[5], Nicholas Brookes[4] and Liu Hao Tjeng[3], *[1]Max-Planck-Institute for Chemical Physics of Solids, Dresden, Germany; [2]II. Institute of Physics, University of Cologne, Germany; [3]Max-Planck-Institute for Chemical Physics of Solids, Germany; [4]European Synchrotron Radiation Facility, Grenoble, France; [5]Department of Quantum Matter, ADSM, Hiroshima University, Japan*

PI09 Search for topological spin order in the multiferroic insulator Cu_2OSeO_3
M. Wagner[1], T. Adams[1], A. Chacon[2], G. Brandl[2], H. Berger[3], P. Lemmens[4] and C. Pfleiderer[1], *[1]Physik-Department, Technische Universitaet Muenchen, D-85748 Garching, Germany; [2]Physik-Department and Forschungsneutronenquelle Heinz-Maier Leibniz, TU Muenchen, D-85748 Garching, Germany; [3]Ecole Polytechnique Federale Lausanne, CH-1015 Lausanne, Switzerland; [4]Institut fuer Physik, Technische Universitaet Braunschweig, Germany*

PI10 Studies of neutron scattering and bulk properties of honeycomb lattice Li_2MnO_3
Sanghyun Lee[1], Sungil Choi[1], Jiyeon Kim[1], Choongjae Won[2], Seongsu Lee[3], Shin-ae Kim[3], Namjung Hur[2] and Je-geun Park[4]*, *[1]Center for Strongly Correlated Materials Research, Seoul National University, Seoul 151-742, Korea; [2]Department of Physics, Inha University, Incheon 402-751, Korea; [3]Neutron Science Division, Korea Atomic Energy Research Institute, Daejeon 305-353, Korea;[4]Department of Physics & Astronomy, Seoul National University, Seoul 151-742, Korea*

PI11 Magnetic and calorimetric properties of Mn_2GeO_4 single crystals
Natalia Mihashenok*, Nikita Volkov, Klara Sablina, Alexander Balaev, Maxim Molokeev, Sergei Popkov and Dmitriy Velikanov, *L.V. Kirensky Institute of Physics SB RAS, Russia*

PI12 Effect of doping on the magnetic structure of $YMn_{1-x}M_xO_3$ (M = Ga, Ti, $x \leq 0.1$)
Neetika Sharma[1], Poonam Kumari[2], A. Das[1]* and G. Ravi Kumar[3], *[1]Solid State Physics Division, Bhabha Atomic Research Centre Mumbai, India; [2]UM - DAE Centre for Excellence in Basic Sciences University of Mumbai, Mumbai, India; [3]Technical Physics Division, Bhabha Atomic Research Centre Mumbai, India*

PI13 Neutron diffraction and magnetic properties of $Ba_2Co_2Fe_{12}O_{22}$: Co_2Y
Chan Hyuk Rhee[1], Jung Tae Lim[1], Sung Wook Yoon[1], Kwang Lae Cho[1], Sung Baek Kim[2] and Chul Sung Kim[1]* *[1]Department of Physics, Kookmin University, Korea; [2]Advancement for College Education Center, Konyang University, Korea*

PI14 Mössbauer studies of olivine $Fe_{1-y}Mn_yPO_4$
Woo Jun Kwon, In Kyu Lee, Hee Seung Kim, In-bo Shim and Chul Sung Kim*, *Department of Physics, Kookmin University, Korea*

PI15 (Withdrawn) Three- dimensional electronic structure of $Na_{0.85}CoO_2$
Y. Sassa[1]*, M. Mansson[1], B. M. Wojek[2], J. Chang[3], M. Kobayashi[4], J. Kanter[1], V. Strocov[4], K. Mattenberger[1] and B. Batlogg[1], *[1]Laboratory of Solid State Physics, ETH Zurich, CH-8093 Zurich, Switzerland; [2]Materials Physics, Royal Institute of Technology KTH, S-16440 Kista, Sweden; [3]Laboratory for synchrotron and neutron spectroscopy, Paul Scherrer Institute, CH-5234 Villigen PSI, Switzerland; [4]Swiss Light Source, Paul Scherrer Institute, CH-5234 Villigen PSI, Switzerland*

PI16 Formation of stoichiometric of FeO synthesized under high pressure
Yasushi Kanke[1], Takuro Yoshikawa[2], Hideto Yanagihara[2], Eiji Kita[2], Yorihiko Tsunoda[3], Kiiti Siratori[2] and Kay Kohn[3] *[1]National Institute of Materials Science, Japan; [2]Institute of Applied Physics, University of Tsukuba, Japan; [3]School of Science and Engineering, Waseda University, Japan*

PI17 Charge and spin ordering in $Sr_4Fe_4O_{11}$ system
Qiang Liu[1,2,3], Gwendolyne Pascua[4], Alexander Komarek[3], Zhiwei Hu[3], Nils Hollmann[3], Olivier Toulemonde[2], Hubertus Luetkens[4], Gwilherm Nenert[5] , Alain Wattiaux[2], Liu Hao Tjeng[3], *[1]II. Physikalisches Institut, Universität zu Köln, Germany; [2]Institut de Chimie de la Matière Condensée de Bordeaux, France; [3]Max-Planck-Institut für chemische Physik fester Stoffe, Dresden, Germany; [4]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institute,CH-5232 Villigen PSI, Switzerland; [5]Institut Laue-Langevin, 38042 Grenoble Cedex 9, France*

PI18 Catalyst structure determination from magnetic properties
Jorge Hernandez-velasco[1]*, Javier Garcia-garcia[2] and Angel Landa-canovas[1], *[1]Energy, ICMM CSIC, Spain; [2]CME UCM, Spain*

PI19 Synthesis and characterization of the mixed perovskite $Ba_{1-x}La_xTi_{1/2}Mn_{1/2}O_3$ as a function of La-doping
Raimundo Lora-serrano[1]*, Ulisses F Kaneko[2], Eduardo Granado[2], Ali F. Garcia-flores[2], Pablo Marques-ferreira[1], Fernando A. Garcia[3] and Jose G. S. Duque[4], *[1]Instituto de Fisica, Universidade Federal de Uberlandia, 38400-902 Uberlandia-MG, Brazil; [2]Instituto de Fisica 'Gleb Wataghin' UNICAMP, CP 6165, 13083-970 Campinas, SP, Brazil; [3]Max Planck Institute for Chemical Physics of Solids, D-01187 Dresden, Germany; [4]Nucleo de Fisica, Campus Itabaiana, UFS, 49500-000, Itabaiana, SE, Brazil*

PI20 Theoretical modeling of the magnetic properties and magnetocaloric effect in $La_{0.1}Ca_{0.9}MnO_3$ manganite by Monte Carlo study
Oksana Pavlukhina*, Vacily Buchelnikov and Vladimir Sokolovskiy, *Chelyabinsk State University, Russia*

PI21 (Withdrawn) Pressure effects on magnetic ordering transitions of bilayer manganites $Pr(Sr_{1-x}Ca_x)_2Mn_2O_7$ (x=0,1) by neutron diffraction and muon spin rasonance
Guochu Deng[1]*, Denis Cheptiakov[2], Ekaterina Pomjakushina[3] and Kazimierz Conder[3], *[1]Bragg Institute, Australian Nuclear Science and Technology Organization, Australia; [2]Laboratory for Neutron Scattering (LNS), Laboratory for Neutron Scattering, Paul Scherrer Institut, Switzerland; [3]Laboratory for Developments and Methods, Paul Scherrer Institute, Switzerland*

PI22 Magnetization reversal and chemical pressure effect in the electron doped manganite $Ca(Mn_{1-x}Sb_x)O_3$
Syuya Ohuchi[1], Michiaki Matsukawa[1]*, Satoru Kobayashi[1], Shigeki Nimori[2] and Ramanathan Suryanarayanan[3], *[1]Dep. of Materials Science and Engineering, Iwate University, Japan; [2]National Institute for Materials Science, Japan; [3]Universite Paris-Sud, France*

PI23 The effect of cu substitution on the structural, electrical and magnetic properties of $LaMn_{1-x}Cu_xO_3$ manganites
Parviz Kameli*, H. Vaezi, B. Aslibeiki and H. Salamati, *Isfahan University of Technology, Iran*

PI24 Investigation of the structural and magnetic peroperties of $La_{0.9}Sr_{0.1}MnO_3$ nanoparticles
M. Eshraghi[1]*, M. Roshanmehr[1], F. Khademi[2], P. Kameli[2] and H. Salamati[2], *[1]Department of Physics, Payame Noor University, Iran; [2]Department of Physics, Isfahan University of Technology, Iran*

PJ: Spin-dependent transport I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairpersons: A. Manchon (King Abdullah University of Science and Technology, Saudi Arabia)
J. Ieda (Japan Atomic Energy Agency, Japan)

PJ01 Magnetotransport properties of anisotropic Co(tCo)/Au(tAu) multilayers
Conrad Rizal[1], Parshu R. Gyawali[2] and Ramesh K. Pokharel[3], *[1]Electrical and Computer Engineering, University of British Columbia, Canada; [2]Laboratory for Nanospintronics and Nanoelectronics, Catholic University of America, USA; [3]Electrical and Communication Engineering, Kyushu University, Japan*

PJ02 The new type of current and spin polarization oscillations
Alexander I Kopeliovich and Pavel V Pyshkin, *theoretical physics, B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences, Ukraine*

PJ03 Pressure-enhanced giant magnetoresistance in Fe/Cr magnetic multilayers
Gendo Oomi*, *Kurume Institute of Technology, Japan*

PJ04 Spin current-induced by sound wave
Igor Ivanovich Lyapilin, *Institut Metal Physics RAS, Russia*

PJ05 Enhancement of magnetocaloric width in $La_{2/3}Ca_{1/3}MnO_3$ compounds with remain the composition ratio between Mn^{3+} and Mn^{4+}
Qing Ji and Xiaoshan Wu*, *Physics, Nanjing University, China*

PJ06 Output voltage calculations in double barrier magnetic tunnel junctions with asymmetric voltage behavior
Artur Useinov, Jurgen Kosel and Aurelien Manchon m, *King Abdullah University of Science and Technology, Saudi Arabia*

PJ07 Spin-current manipulation by domain wall motion in the non-local spin valve
Ryoko Sugano[1], Masahiko Ichimura[1], Saburo Takahashi[2] and Sadamichi Maekawa[3], *[1]Central Reserach Laboratory, Hitachi, Ltd., Japan; [2]Institute for Materials Research, Tohoku University and CREST-JST, Japan; [3]Advanced Science Research Center, Japan Atomic Energy Agency and CREST-JST, Japan*

PJ08 The study of microwave assisted magnetization reversal via spin pumping
Sankha Subhra Mukherjee, Siddharth Rao, Praveen Deorani, Jae Hyun Kwon, Charanjit Singh Bhatia and Hyunsoo Yang*, *ECE, National University of Singapore, Singapore*

PJ09 Contributions of domain walls on large magnetoresistance effect in ultrathin TbFeCo wires
Bang Do and Hiroyuki Awano, *Toyota Technological Institute, Japan*

PJ10 First-principles study of conductivity tensor in transition metals and alloys
Yohei Kota* and Akimasa Sakuma, *Department of Applied Physics, Tohoku University, Japan*

PJ11 Magnetoresistance of CoFe/Pt nano-contacts
Muftah Al-mahdawi* and Masashi Sahashi, *Department of Electronic Engineering, Tohoku University, Japan*

PJ12 Inversion of magenetoresistance in $La_{1-x}Sr_xMnO_3$/Nb-doped $SrTiO_3$/CoFe junctions
Kenji Ueda*, Katsunori Tozawa, Keita Sakuma, Naoto Fukatani, Tetsuya Miyawaki and Hidefumi Asano, *Graduate school of engineering, Nagoya University, Japan*

PJ13 Spin transfer torques in antiferromagnets
Hamed Ben Mohamed Saidaoui[1], Aurelien Manchon[2]* and Xavier Waintal[3], *[1]Physical Science and Engenering, King Abdullah University of Science And Technology KAUST, Saudi Arabia; [2]Physical Science and Engineering, King Abdullah University of Science And Technology KAUST, Saudi Arabia; [3]Departement de Physique, SPSMS-INAC-CEA, France*

PJ14 Domain wall configuration and magneto-transport properties in dual spin-valve with nanoconstriction
Byong Sun Chun[1], Chan Yong Hwang[1], Han Chun Wu[2], Mohamed Abid[3], Su Jung Noh[4] and Young Keun Kim[4], *[1]Korea Research Institute of Standards and Science, Korea; [2]Trinity College Dublin, Ireland; [3]Ecole Polytechnique Federale de Lausanne/IPMC, Switzerland; [4]Korea University, Korea*

PJ15 Giant magnetocaloric effect of $Mn_{0.91}Ca_{0.09}As$ thin film on Al_2O_3 (0001)
Duong Anh Tuan[1], Cho Sunglae[1]*, Dang Duc Dung[2], Shin Yooleemi[1] and Jeon Seung Mok[1], *[1]Physics, University of Ulsan, Korea; [2]Physics, Depart of General Physics, School of Engineering Physics Hanoi University of Science and Technology., Viet Nam*

PJ16 Anomalous Hall effect of [Amorphous CoSiB/Pt] multilayer films
Hana Lee, Insung Park, Hyungjun Kim, Sungyong Kim, Youngkwang Kim, Hwayong Noh and Taewan Kim*, *Sejong university, Korea*

PJ17 Spin transport phenomena through MgO/CuPc hybrid barrier in magnetic tunnel junctions
Yu Jeong Bae[1], Nyun Jong Lee[1], Tae Hee Kim[1]*, Hyunduck Cho[2], Changhee Lee[2], Luke Fleet[3], Atsufumi Hirohata[3], Yeong-ah Soh[4] and Gabriel Aeppli[4], *[1]Physics, EWHA Womans University, Korea; [2]School of Electrical Engineering and Computer Science, Seoul National University, Korea; [3]Electronics, The University of York, United Kingdom; [4]London Centre for Nanotechnology, United Kingdom*

PJ18 Theoretical approach to spin-current absorption at an interface
Kazuhiro Tsutsui[1], Kazuhiro Hosono[2] and Takehito Yokoyama[1]*, *[1]Dept. of Physics, Tokyo Institute of Technology, Japan; [2]Dept. of Physics, Tokyo Metropolitan University, Japan*

PJ19 Magneto-transport properties of Al_2O_3-doped Mn-Zn ferrites
Hyo-jin Kim and Sang-im Yoo*, *Department of Materials Science and Engineering, Seoul National University, Korea*

PJ20 Current induced fluctuation of switching fields in Co/Pd nanowires
Mahdi Jamali, Xuepeng Qiu, Kulothungasagaran Narayanapillai and Hyunsoo Yang*, *Electrical and Computer Engineering, National University of Singapore, Singapore*

PJ21 Role of structural inversion asymmetry on current-induced effective field in perpendicular magnetized trilayers
Xuepeng Qiu, Kulothungasagaran Narayanapillai and Hyunsoo Yang*, *Electrical and Computer Engineering, National University of Singapore, Singapore*

PJ22 Characterization of mechanically milled Cu-Co powder by 3D-FIB and atom probe tomography : effect of oxidation on the magnetoresistance
Julien Bran, Rodrigue Larde, Malick Jean and Jean-marie Le Breton*, *Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France*

PJ23 Effect of pressure on magnetotransport properties in Fe/MgO granular films
A. Garcia - Garcia[1], J. A. Pardo[2], P. A. Algarabel1*, Z. Arnold[3], J. Kamarad[3] and M. R. Ibarra[2], *[1]ICMA, Universidad de Zaragoza-CSIC, 50009 Zaragoza, Spain; [2]INA, Universidad de Zaragoza, 50018 Zaragoza, Spain; [3]Institute of Physics AS CR, 162 53 Praha 6, Czech Republic*

PJ24 Measurement of anomalous nernst effect in [CoSiB/Pt] multilayer films
Ozgur Kelekci[1], Ha Na Lee[2], K. J. Min[2], H. M. Waseem Khalil[1], Tae Wan Kim[2] and Hwayong Noh[1]*, *[1]Physics Department and Graphene Research Institute, Sejong University, Korea; [2]Department of Advanced Materials Engineering, Sejong University, Korea*

PJ25 GMR effect in Co-Cu microwires
Valentina Zhukova[1]*, Rastislav Varga[2], Carlos Garcia[3], Juanjo Del Val[1], Mihail Ipatov[1] and Arcady Zhukov[4], *[1]Dpto. de Fisica de Materiales, UPV/EHU, Spain; [2]Inst. Phys., Fac.Sci., UPJS, Slovak; [3]Dept Phys, Bogazici Univ, Turkey; [4]Dpto. de Fisica de Materiales, UPV/EHU San Sebastian and IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*

PJ26 Domain wall quantum interferometer
John Eves, N. Grisewood and H. B. Braun, *School of Physics, UCD, Ireland*

PJ27 Synthesis and magnetic properties of trilayer NiFe/Bi/NiFe films
Konstantin Patrin[1], Viktor Yakovchuk[1], Gennady Patrin[2] and Stanislav Yarikov[2], *[1]nstitute of Physics of Siberian Branch of Russian Academy of Sciences, Russia; [2]Siberian Federal University, Russia*

PJ28 A study on the pulesd laser deposited metallic spin valve structures
Sayak Ghoshal[1]* and P. S. Anil Kumar[2], *[1]Physics, Indian Institute of Science, India; [2]Indian Institute of Science, India*

PJ29 Spin torque in a finite two-dimensional ferromagnet with Rashba interaction
Christian Ortiz, Xuhui Wang and Aurelien Manchon*, *Physical Science and Engineering Division, King Abdullah University of Science and Technology, Saudi Arabia*

PJ30 Spin transport of Py/Au/Py spin valves with different Au channel widths
Jang Hae Ku[1], Joonyeon Chang[1]*, Hyun Cheol Koo[1], Jonghwa Eom[2], Suk-hee Han[1] and Gyutae Kim[3], *[1]Spin Convergence Research Center, Korea Institute of Science and Technology (KIST), Korea; [2]Department of Physics, Sejong University, Korea; [3]Department of Electrical Engineering, Korea University, Korea*

PJ31 The effect of magnetic impurities in magnetic tunnel junction
Sungjung Joo[1], K.Y. Jung[1], B.C. Lee[2], Tae-suk Kim[3], K.h. Shin[4], Mung-hwa Jung[5], Jinki Hong[1] and K. Rhie[1]*, *[1]Department of Display and Semiconductor Physics, Korea University, Korea; [2]Department of Physics, Inha University, Korea; [3]Department of Physics, Chonnam national University, Korea; [4]Spintronics Device Research Center, Korea Institue of Science and Technology, Korea; [5]Department of Physics, Sogang University, Korea*

PJ32 Effect of cobalt layer thickness on the magnetic and magnetoresistance properties of asymmetrical Co/Cu multilayers
Srikrishna Pandey, Pavel Nikolaev and Sivaram Arepalli*, *Department of Energy Science, Sungkyunkwan University, Korea*

PJ33 Current-induced motion of a transverse magnetic domain wall in the presence of spin Hall effect
Soo-man Seo[1], Kyung-whan Kim[2], Jisu Ryu[2], Hyun-woo Lee[2] and Kyung-jin Lee[1]*, *[1]Materials Science and Engineering, Korea university, Korea; [2]Physics, Pohang University of Science and Technology, Korea*

PJ34 Universal spin-hall effect in metallic thin films
Xuhui Wang[1], Jiang Xiao[2], Aurelien Manchon[1], and Sadamichi Maekawa[3,4], *[1]King Abdullah University of Science and Technology (KAUST), Physical Science and Engineering Division, Saudi Arabia; [2]Department of Physics and State Key Laboratory of Surface Physics, Fudan University, China; [3]Advanced Science Research Center, Japan Atomic Energy Agency, Tokai 319-1195, Japan; [4]CREST, Japan Science and Technology Agency, Tokyo 102-0075, Japan*

PK: Perpendicular magnetic anisotropy and strong anisotrorpy

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: T. Shima (Tohoku Gakuin University, Japan)

PK01 Controlling magnetic isolation and moment reversal of FePt (001) films by Cu capping nanoislands
D. H. Wei[1]*, C. H. Chao1 and Y. D. Yao[2], *[1]Institute of Manufacturing Technology and Graduate Institute of Mechanical AND Electrical Engineerin, National Taipei University of Technology, Taiwan; [2]Institute of Applied Science and Engineering, Fu Jen University, Taiwan*

PK02 Perpendicular magnetic anisotropy for annealed Co/Ir(111) ultrathin films
Wen-yuan Chan, Du-cheng Tsai, Cheng-hsun Chang and Jyh-shen Tsay*, *National Taiwan Normal University, Taiwan*

PK03 Anomalous easy-plane magnetocrystalline anisotropy of compressive strained (La,Ba)MnO_3 films
Hong Zhu*, Jinzeng Tian, Lei Yang, Qingyong Duanmu, Lin Hao and Xiaoping Wang, *Department of Physics, University of Science and Technologh of China, China*

PK04 Magnetic reversal of Co/Pt multilayer depending on Co thickness and annealing temperature
Seungha Yoon, Seungkyo Lee, Joonhyun Kwon, Junghyon Lee and B. K. Cho*, *Materials Science and Engineering, Gwangju Institute of Science and Technology, Korea*

PK05 Annealing effect on the microstructures and magnetic properties of [Fe/Pt]16 multilayers on MgO (001) substrate
Aimei Zhang[1,] Weihua Zhu[2] and Xiaoshan Wu[3], *[1]College of Science, Hohai University, China; [2]College of Science, Hohai Unviersity, China; [3]Physics, Nanjing University, China*

PK06 Preparation and magnetic studies of room-temperature sputtered [Co/Pt] multilayer films on glass substrates with perpendicular magnetic anisotropy ,
Chiuan-fa Huang[1], Hsian-yuan Wu[1], An-cheng Sun[1]*, Fu-te Yuan[2], Jen-hwa Hsu[2], S. N. Hsiao[3] and H. Y. Lee[3] *[1]Department of Chemical Engineering & Materials Science, Yuan Ze University, Taiwan; [2]Department of Physics, National Taiwan University, Taiwan; [3]National Synchrotron Radiation Research Center (NSRRC), Taiwan*

PK07 Magnetic anisotropy in FeCo thin films
Xiaoxi Liu*, Shinsaku Isomura and Akimitsu Morisako, *Department of Information Engineering, Shinshu University, Japan*

PK08 Magnetic domain wall energy of Co/Ni superlattice with perpendicular magnetic anisotropy
Kentaro Toyoki, Yu Shiratsuchi* and Ryoichi Nakatani, *Osaka University, Japan*

PK09 Anisotropic Magnetoresistance of Co/Ni multilayers
Chih-yung Chen[1], James C Eckert[1], Natalia Fear[1], Sheena K. K. Patel[1], Richard Sayanagi[1], Patricia D Sparks[1], E Shipton[2] and Eric E Fullerton[2], *[1]Harvey Mudd College, USA; [2]University of California, San Diego, USA*

PK10 Interface perpendicular magnetic anisotropy in thick amorphous CoSiB film by Pt layer
Insung Park, Hana Lee, Hyung Jun Kim, Sung Yong Kim, Young Kwang Kim and Taewan Kim*, *Department of Advanced Materials Engineering, Sejong Univ., Korea*

PK11 Perpendicular magnetic anisotropy and superparamagnetism in Ta/CoFeB/MgO structures
C. C. Tsai[1], H. M. Chen[2], Chih-Wei Cheng[2], C. H. Shiue[2], M. C. Tsai[2], J. P. Singh[2], C. W. Su[3] and G. Chern[2]*, *[1]Department of Engineering and Management of Advanced Technology, Chang Jung Christian University, Tainan 71101, Taiwan; [2]Department of Physics, National Chung Cheng University, ChiaYi 62102, Taiwan; [3]Department of Electrophysics, National Chiayi University, ChiaYi, 60004, Taiwan*

PK12 Observation of symmetry of wavefunction in interface controlled Co/Pd multilayer using magnetic compton profile
Kosuke Suzuki[1]*, Naoto Go[1], Shun Emoto[1], Masayoshi Itou[2], Yoshiharu Sakurai[2] and Hiroshi Sakurai[1], *[1]Graduate School of Engineering, Gunma University, Japan; [2]JASRI/SPring-8, Japan*

PK13 Tunable spin configuration in [Co/Ni] adjoined NiFe exchange spring structures
Sunjae Chung[1]*, S. M. Mohseni[1], T. N. Anh Nguyen[1], N. Benatmane[1], R. K. Dumas2 and Johan Akerman[2], *[1]Materials Physics, School of ICT, KTH - Royal Institute of Technology, Electrum 229, 164 40, Kista, Sweden; [2]Department of Physics, University of Gothenburg, 412 96 Gothenburg, Sweden*

PK14 Large perpendicular magnetic anisotropy in the MgO/CoFeB/Ta with thick Ta layer
Tao Zhu, *Institute of Physics, Chinese Academy of Sciences, China*

PK15 Strain induced overlayer effect on perpendicular magnetic anisotropy in Ta/CoFeB/MgO structures
C. W. Su[1], H. M. Chen[2], Chih-Wei Cheng[2], C.H. Shiue[2], J. P. Singh[2], C. C. Tsai[3] and G. Chern[2]*, *[1]Department of Electrophysics, National Chiayi University, Chiayi, 60004, Taiwan; [2]Department of Physics, National Chung Cheng University, Chiayi 62102, Taiwan; [3]Department of Engineering and Management of Advanced Technology, Chang Jung Christian University, Tainan 71101, Taiwan*

PK16 (Withdrawn) Ultrathin Co/Pt films with high thermal stability and large effective magnetic moment
Prasanta Chowdhury*, Prabhanjan Dilip Kulkarni, Murali Krishnan and Harish C Barshilia, *Surface Engineering Division, National Aerospace Laboratories (CSIR), India*

PK17 Magnetic characteristics of amorphous [CoSiB/Pt]n multilayers
Woosuk Yoo[1], Kyujoon Lee[1], Myung-hwa Jung[1]*, Insung Park[2], Taewan Kim[2], E.h.m. Van Der Heijden[3] and H.j.m. Swagten[3], *[1]Dept of Physic, Sogang University Seoul. Korea; [2]Dept of Physic, Sejong University Seoul. Korea; [3]Department of Applied Physics, Eindhoven University of Technology, Netherlands*

PK18 Effects of phase distribution and grain size on the effective anisotropy and coercivity of nanocomposite PtCo permanent alloy
Tao Liu[1], Pei Zhao[2], Zhaohui Guo[1], Wei Li[1], Wei Sun[1] and Jingdai Wang[1], *[1]Division of Functional Materials, Central Iron & Steel Research Institute, China; [2]Central Iron & Steel Research Institute, China*

PK19 Perpendicular magnetic anisotropy and metal layer effect in MgO/CoFeB/cap (cap = Ta, Ru, and Nb)
Chih-Wei Cheng, Tsung-I Cheng and G. Chern*, *Department of Physics, National Chung Cheng University, Chiayi 62102, Taiwan*

PK20 Dependence of perpendicular magnetic anisotropy of CoFeB thin films on thickness of MgO overlayer
Duong Duc Lam[1], Frederic Bonell[1], Shinji Miwa[1], Yoichi Shiota[1], Kay Yakushiji[2], Hitoshi Kubota[2], Takayuki Nozaki[2], Akio Fukushima[2], Shinji Yuasa[2] and Yoshishige Suzuki[1]*, *[1]Graduate School of Engineering Science, Osaka University, Toyonaka, Osaka 560-8531, Japan; [2]National Institute of Advanced Industrial Science and Technology (AIST), Spintronics Research Center, Japan*

PK21 The study of MgO based surface anisotropy of CoFeB layer
Dongseok Kim[1], Kuyeol Jung[1], Sungjung Joo[1], Youngjae Jang[1], Byungchan Lee[2], Jinki Hong[1] and Kungwon Rhie[1]*
[1]Display and Semiconductor Physics, Korea University, Korea; [1]Department of Physics, Inha University, Korea

PL: Surface and interface effects including exchange bias

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Y. Shiratsuchi (Osaka University, Japan)

PL01 $BiFeO_3$ thickness dependence of exchange bias in polycrystalline $BiFeO_3$FeNi bilayers
Xiaobo Xue[1], Xueyong Yuan[2], Wenbing Rui[1], Biao You[1], Qingyu Xu[2] and Jun Du[1]*, *[1]National Laboratory of Solid State Microstructures and Department of Physics, Nanjing University, China; [2]Department of Physics, Southeast University, China*

PL02 Temperature-dependent magnetic anisotropies in epitaxial Fe/CoO/MgO(001) system studied by the planar Hall effect
J. Zhu[1], J. Li[1], W.n. Cao[2], J. Zhu[1] and Yizheng Wu[2]*, *[1]Physics department, Fudan university, China; [2]physics department, Fudan university, China*

PL03 Structural changes and magnetic properties of ultrathin Fe/Pt(111) films influenced by oxygen exposure
Jyh-shen Tsay[1]*, Hau-chun Jhang[1], Ying-chen Lee[1], Wei-hsiang Chen[1], Yao-jung Chen[2] and Huei-ying Ho[3], *[1]National Taiwan Normal University, Taiwan; [2]Taipei College of Maritime Technology, Taiwan; [3]National Taipei University of Education, Taiwan*

PL04 Initial growth of bcc Co films on Au(001) studied by STM/BH imaging
T. Kawagoe*, E. Wakabayashi, Y. Murasawa and T. Sakata, *Osaka Kyoiku University, Japan*

PL05 Magnetic field induced "switching" of the nanodomain state of ferromagnet - antiferromagnet frustrated system
Alexander I Morosov and Alexander S Sigov, *Electronics Department, MSTU MIREA, Russia*

PL06 Stable structural and electronic properties of adsorption Tl on the clean Tl/Si(111) surface
Haruki Kato[1]*, Liang Li[1], Shinya Haraguchi[1], Junpei Goto[1], Masahito Tsujikawa[2] and Tatsuki Oda[3], *[1]Graduate School of Natural Science and Technology, Kanazawa University, Japan; [2]Center for Spintronics Integrated Systems, Tohoku University, Japan; [3]Institute of Science and Engineering, Kanazawa University, Japan*

PL07 Exchange bias effect in Ni(Zn)O film
R. Ray[1]*, S. Biswas[1], S. Das[2], S. Majumdar[2] and S. Giri[2], *[1]Department of Physics, Jadavpur University, India; [2]Solid State Physics, Indian Association for the Cultivation of Science, India*

PL08 Electronic properties of transition metal oxides interface between $GdTiO_3SrTiO_3$
Sungbin Lee[1]* and Leon Balents[2], *[1]University of California, Santa Barbara, USA; [2]Kavli Institute for Theoretical Physics, University of California, Santa Barbara, USA*

PL09 Parallel ferromagnetic resonance and spin wave excitation in exchange-biased NiFe/IrMn bilayers
Marcos Sousa[1]*, Fernando Pelegrini[1], Justiniano Marcatoma[2], Willian Alayo[2] and Elisa Baggio-saitovitch[2], *[1]Universidade Federal de Goias - UFG, Brazil; [2]Centro Brasileiro de Pesquisas Fisicas, Brazil*

PL10 Morphological consideration for post-annealed Cr2O3 surface and exchange bias in bilayer system
Tomohiro Nozaki*, Naoki Shimomura, Takuya Ashida, Yuji Sato and Masashi Sahashi, *Graduate school of Electronic Engineering, Tohoku University, Japan*

PL11 Magnetic properties of [NiFe/NiFeCuMo/NiFe]/FeMn¬multilayers depending on a thickness of NiFeCuMo layer
Jong-gu Choi[1], Kwang-jun Park[2], Jang-rho Rhee[3] and Sangji-suk Lee[2]*, *[1]Eastern-Western Biomedical Engineering, Sangji University, Korea; [2]Oriental Biomedical Engineering, Sangji University, Korea; [3]Physics, Sookmyung Women' University, Korea*

PL12 Structural and magnetic properties of antiferromagnetic Heusler Ru_2MnGe epitaxial thin films
Naoto Fukatani*, Hirohito Fujita, Tetsuya Miyawaki, Kenji Ueda and Hidefumi Asano, *Nagoya University, Japan*

PL13 Exchange-spring phenomenon of ultrathin Fe/CoPt bilayer
Wei-hsiang Chen[1], Hsing-hsuane Wu[1], Huei-ying Ho[2] and Jyh-shen Tsay[1]*, *[1]Physics, National Taiwan Normal University, Taiwan; [2]Physics, Department of Science Education, National Taipei University of Education, Taiwan*

PL14 Neutron magnetic scattering study in manganite thin film system
H. Nakao[1]*, H. Yamada[2], K. Iwasa[3], J. Okamoto[1], Y. Yamasaki[1], Y. Murakami[1] and A. Sawa[2], *[1]Condensed Matter Research Center and Photon Factory, IMSS, KEK, Japan; [2]Electronics and Photonics Research Institute, AIST, Japan; [3]Department of Physics, Tohoku University, Japan*

PL15 Direction and temperature dependences of exchange bias and coercivity of $NiFe/Cr_{2(1-x)}Fe_{2x}O_3$(x= 0.25, 0.4) bilayers
Sanghoon Ki, Byeong-geon Kim and Joonghoe Dho*, *Kyungpook National University, Korea*

PL16 Structure and magnetic properties of epitaxial Fe/MgO/Si (001) heterostructures
Jeong Hong Jo[1], Kyung-ho Kim[2], Yoon Jae Nam[3], Hyung-jun Kim[2], Joonyeon Chang[2] and Sang Ho Lim[1]*, *[1]Department of Materials Science and Engineering, Korea University, Seoul 136-713, Korea; [2]Spin Convergence Research Center, Korea Institute of Science and Technology, Seoul 136-791, Korea; [3]Department of Nano Semiconductor Engineering, Korea University, Seoul 136-713, Korea*

PL17 Uncompensated magnetic moment around Mn_3Ir / Fe-Co-Ni bilayer interface
Yohei Kota*, Hirokazu Takahashi, Masakiyo Tsunoda and Akimasa Sakuma, *Graduate School of Engineering, Tohoku University, Japan*

PL18 Unusual exchange bias effects in NiFe/Mn thin films induced via ion-beam bombardment
Chi-hsin Liu[1], Chin Shueh[1], Yi-wen Ting[1], Wen-chen Chen[2], Te-ho Wu[2], Johan Van Lierop[3] and Ko-wei Lin[1]*, *[1]Dept of Materials Science and Engineering, National Chung Hsing University, Taiwan; [2]Graduate School of Material Science, National Yunlin University of Science and Technology, Taiwan; [3]Department of Physics and Astronomy, University of Manitoba, Canada*

PL19 Exchange bias effect in $BiFeO_3$ thin films
Kil-dong Sung and Jonghoon Jung*, *Physics, Inha University, Korea*

PL20 Experiment evidence to the existence of interaction between antiferromagnetic domains in IrMn/Pt/Co/Pt multilayers
X. J. Bai[1], Z. Shi[2], S. M. Zhou[2]*, X. R. Zhao[1] and C. D. Cao[1], *[1]Key Laboratory of Space Applied Physics and Chemistry, Northwestern Polytechnical University, Xi'an, China; [2]Department of Physics, Tongji University, Shanghai 200092, China*

PL21 Nanoscale investigation of the Cr/Fe(001) interface grown by oxygen assisted epitaxy
Alberto Brambilla[1]*, Andrea Picone[1], Guido Fratesi[2], Alberto Calloni[1], Michele Riva[1], Gianlorenzo Bussetti[1], Alberto Ferrari[1], Lamberto Duo'[1], Marco Finazzi[1], Mario Italo Trioni[3] and Franco Ciccacci[1], *[1]Dipartimento di Fisica, Politecnico di Milano, Piazza Leonardo Da Vinci 32, 20133 Milano, Italy; [2]Dipartimento di Scienza dei Materiali, Universita di Milano-Bicocca, Via Cozzi 53, 20125 Milano, Italy; [3]CNR, National Research Council of Italy, ISTM, Via Golgi 19, 20133 Milano, Italy*

PM: Soft magnetic materials I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Phan Manh-Huong (University of South Florida, USA)

PM01 Correlation of soft magnetic properties with free volume and medium range ordering in metallic glasses
Amit P Srivastava[1]*, D Srivastava[1], P K Pujari[1], K G Suresh[2] and G K Dey[1], *[1]Bhabha Atomic Research Centre, Mumbai, India; [2]Indian Institute of Technology Bombay, Mumbai, India*

PM02 Microscopic magnetic hysteresis measurement of amorphous Tb-TM (TM=Fe and Co) thin films by magnetic Compton scattering
Akane Agui[1]*, Tetsuya Unno[2], Sayaka Matsumoto[2], Kousuke Suzuki[2] and Hiroshi Sakurai[2], *[1]Japan Atomic Energy Agency, Japan; [2]Dept. Production Sci & Technol., Gunma Univ., Japan*

PM03 A significant reduction of hysteresis in MnFe(P,Si) compounds
O. Tegus[1]*, Y. X. Geng[1] and J. H. Huang[2], *[1]Physics and Electronic Information College, Inner Mongolia Normal University, Hohhot 010022, China; [2]Baotou Research Institute of Rare Earths, Baotou 014030, China*

PM04 Temperature dependence of creep-induced anisotropy in nanocrystalline FeCuNbSiB alloys
Giselher Herzer*, Mie Marsilius and Christian Polak, *R&D Rapid Solidification Technology, Vacuumschmelze GmbH & Co. KG, Germany*

PM05 Magnetocaloric properties of Ni-Co-Mn-In ribbon
M. U. Gutowska[1]*, J. Wieckowski[1], A. Szewczyk[1], W. Maziarz[2], N. Nedelko[1], S. Lewinska[1], A. Slawska - Waniewska[1], M. Kowalczyk[3] and A. Kolano - Burian[4], *[1]Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; [2]Institute of Metallurgy and Materials Science, Polish Academy of Sciences, Cracow, Poland; [3]Faculty of Materials Engineering, Warsaw University of Technology, Warsaw, Poland; [4]Institute of Non-Ferrous Metals, Gliwice, Poland*

PM06 Influence of bismuth substitution on the magnetocaloric properties of $Gd_5Si_2Ge_2$ compound
Corneliu Bazil Cizmas[1]*, Rim Guetari[2], Lotfi Bessais[3], Najeh Thabet Mliki[2] and Sorin Adam[1], *[1]Department of Electrical Engineering and Applied Physics, Transilvania University of Brasov, Bd. Eroilor 29, 500036 Brasov, Romania; [2]LMOP, Department of Physics, Faculty of Sciences of Tunis, Tunis El Manar University, 2092 El Manar, Tunisia; [3]ICMPE, UMR7182 CNRS, Universite Paris-Est Creteil, 2/8 rue Henri Dunant, B.P. 28 F-94320 Thiais, France*

PM07 Ion incient energy effects on the giant magnetoimpedance enhancement
Hoon Song and D. G. Park*, *Korea Atomic Energy Research Institute, Korea*

PM08 Investigation of electrodeposited FeNi film prepared from tartaric acid based bath
Takaya Shimokawa*, Takeshi Yanai, Ken-ichiro Takahashi, Masaki Nakano and Hirotoshi Fukunaga, *Nagasaki University, Japan*

PM09 Electrodeposited Fe-Co film prepared from citric acid-based plating bath
Takeshi Yanai*, Haruka Uto, Takaya Shimokawa, Ken-ichiro Takahashi, Masaki Nakano and Hirotoshi Fukunaga *Nagasaki University, Japan*

PM10 Magnetic and magnetocaloric properties of polycrystalline Fe_2P under hydrostatic pressure
Luana Caron[1]*, Viktor Hoglin[2], Yvonne Andersson[2], Per Nordblad[3] and Ekkes Bruck[4], *[1]Fundamental Aspects of Materials and Energy, Faculty of Applied Sciences, TU Delft, Mekelweg 15, 2629 JB Delft, Netherlands; [2]Department of Materials Chemistry, Uppsala University, Box 538, 751 21 Uppsala, Sweden; [3]Department of Engineering Sciences, Uppsala University, Box 534, 751 21 Uppsala, Sweden; [4]Fundamental Aspects of Materials and Energy, TU Delft, Mekelweg 15, 2629 JB Delft, Netherlands*

PM11 Influence of Er doping on magnetic and magnetocaloric properties of $(NiCo)_2MnGa$
Jirí Kaštil[1]*, Jirí Kamarád[2] and Zdněk Arnold[2], *[1]Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic; [2]Institute of Physics ASCR, Prague 8, Czech Republic., Czech Republic*

PM12 Structural and magnetic properties of FeMnAl nanocrystalline alloys
Kontan Tarigan, Young-yeal Song and Seong-cho Yu*, *BK21 Physics Program and Department of Physics, Chungbuk National University, Cheongju 361-763, Korea*

PM13 Magnetocaloric effect in Fe doped $La_{0.67}Ba_{0.33}MnO_3$ system
Hirofumi Kawanaka[1]*, Hiroshi Bando[1] and Yoshikazu Nishihara[2], *[1]Advanced Industrial Science and Technology, Japan; [2]Ibaraki Univ., Japan*

PM14 Study of magnetic transition and magnetic entropy changes of $La_{0.7}Sr_{0.3}MnO_3$ and $La_{0.7}Ca_{0.1}Sr_{0.2}MnO_3$
Anwar Mohammad Shafique, Shalendra Kumar, Faheem Ahmed, G. W. Kim and Bon Heun Koo*, *School of Nano & Advanced Materials Engineering, Changwon national university, Korea*

PM15 Perpendicular magnetic anisotropy of amorphous ferromagnetic CoSiB multilayer
Sol Jung[1], H. I. Yim[1]*, Ahri Kim[2] and Sumin Kim[2], *[1]Physics, Sookmyung Women's University, Korea; [2]Nano-Physics, Sookmyung Women's University, Korea*

PM16 Thickness dependence of magnetic induction in inhibitor-free 3% silicon steels
Sang-beom Kim[1]*, Joon-young Soh[1], Sang-yun Lee[1], Heejong Jung[2] and Jongryoul Kim[2], *[1]Korea Electric Power Corporation Research Institute, Korea; [2]Department of Metallurgy and Materials Science, Hanyang University, Korea*

PM17 Effect of M (= Ge, Y, Hf) addition on soft magnetic properties of Fe-B-Si-M metallic glass alloys
Juho Lee[1], Hwijun Kim[1], Jungchan Bae[1] and Dohyang Kim[2]*, *[1]Korea Institute of Industrial Technology, Korea; [2]Center for noncrystalline Materials, Yonsei University, Korea*

PM18 Effects of film composition and substrate temperature on the structure and magnetic properties of FeCoB alloy films formed on MgO single-crystal substrates
Yugo Asai*, Mitsuru Ohtake, Tetsuroh Kawai and Masaaki Futamoto, *Chuo University, Japan*

PM19 Arrangement of different magnetic alloy sheets for effective magnetic shielding
Sang-yun Lee, Yun-seog Lim, Ho-seong Ahn, Dong-il Lee and Sang-beom Kim*, *Korea Electric Power Corporation Research Institute, Korea*

PM20 Fabrication of pariculated Fe-Mg thin films by selective oxidation and their magnetic properties
Pyungwoo Jang*, *College of Science and Engineering, Cheongju university, Korea*

PM21 Optimum spacing of magnetic alloy strips in open-type magnetic shielding
Yun-seog Lim, Sang-yun Lee, Ho-seong Ahn, Dong-il Lee and Sang-beom Kim*, *Korea Electric Power Corporation Research Institute, Korea*

PM22 Magnetocaloric effect in $Ni_{2.27}Mn_{0.73}Ga$ Heusler alloy
Mikhail Drobosyuk, Vasiliy Buchelnikov, Sergey Taskaev and Rafael Fayzullin, *Chelyabinsk state university, Russia*

PM23 Soft magnetic properties of Fe-6.5wt.%Si alloy sheets fabricated by powder hot-rolling
Hunju Lee[1], Hwijun Kim[2] and Mooyoung Huh[1]*, *[1]Department of Materials Science and Engineering, Korea University, Korea; [2]Korea Institute of Industrial Technology, Korea*

PM24 Structure and magnetic properties of nano/micro-sized Mn-Al alloy powders produced by plasma arc-discharge and gas atomization
Junggoo Lee[1]*, Younkyoung Baek[1], Hwijun Kim[2] and Chuljin Choi[1], *[1]Powder & Ceramics Division, Korea Institute of Materials Science, Korea; [2]Eco-Materials and Processing Division, Korea Institute of Industrial Technology, Korea*

PM25 (Withdrawn) Ultra high speed pm type synchronous motor-generator with amorphous core for micro turbine
Do-kwan Hong*, Yeon-ho Jeong, Dae-suk Joo, Byung-chul Woo and Dae-hyun Koo, *Electric Motor Research Center, Korea Electrotechnology Research Institute, Korea*

PM26 Temperature dependence of magnetic domains in grain-oriented silicon steel
H. L. Park[1], R. Schaefer[2], O. Y. Kwon[3] and Y. H. Jeong[1]*, *[1]Physics, POSTECH, Korea; [2]IFW Dresden, Institute for Metallic Materials, Germany; [3]Pohang Iron and Steel Company, Korea*

PM27 A tri-layer stress impedance sensor using amorphous magnetostrictive thin film
Bodong Li*, Ahmed Alfadhel and Jurgen Kosel, *KAUST, Saudi Arabia*

PM28 Magnetoimpedance(GMI) effect in the NiFe shell/Cu core wires fabricated by electrodeposition
Dong Young Kim, Sung Jae Jeon, Jung Dong Kim and Seok Soo Yoon*, *Physics, Andong National University, Korea*

PN: Dilutedmagnetic semiconductor/nano-composite I

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairpersons: Masaki Imamura (Fukuoka Institute of Technology, Japan)
Beongki Cho (GIST, Korea)

PN01 SQUID, XRD and Raman studies of Mn implanted gallium nitride at elevated temperature
N. S. Pradhan[1], Sheshmani K. Dubey[2], A. D. Yadav[1], B. K. Panigrahi[3], K. G. M. Nair[4] and M. Roy[5], *[1]Department of Physics, University of Mumbai, Mumbai, India; [2]Deparment of Physics, University of Mumbai, India; [3]Materials Science Division, Indira Gandhi Centre for Atomic Research, Kalpakkam-603 102, India; [4]Materials Science Division, Indira Gandhi Centre for Atomic Research, Kalpakkam-603 102, India;[5]Chemistry Devision, Bhabha Atomic Research Center, Mumbai - 400 005, India*

PN02 Oxidation of monovacancies in graphene by oxygen
Thaneshwor Prashad Kaloni and U. Schwingenschlögl, *King Abdullah University of Science and Technology, Saudi Arabia*

PN03 Structural , compositional and magnetic study of bulk Fe doped ZnO system and impurity phase formation
Shumaila Karamat[1]*, Rajdeep Singh Rawat[2], Paul Lee[3], Tan Tuck Lee Augustine[4] and Muhammad Ghaffari[5], *[1]Physics, NIE, Nanyang technological University, Singapore [2]COMSATS Islamabad, Pakistan; [3]NSSE-NIE, Nanyang Technological Unievrsity Singapore, Singapore; [4]Physics, Nanyang Technological University, Singapore, Singapore; [5]EEE, Nanyang Technological University, Singapore, Singapore*

PN04 Enhanced magnetization and spin injection in Co/ZnO films by Al doping
Zhiyong Quan, Wei Liu and Xiaohong Xu*, *School of Chemistry and Materials Science, shanxi normal university, China*

PN05 Structure, magnetic, and transport properties in $Cu_{1-x}Mn_xO$ compounds
Jinzhu Cai, Li Li, Bin Lv, Shen Wang, Wenqin Zou, Fengming Zhang* and Xiaoshan Wu, *Physics, Nanjing University, China*

PN06 A probe into the structural, magnetic and dielectric properties of barium and lithium substituted pseudobrookites
Pushpinder Gupta Bhatia[1]* and Radha Srinivasan[2], *[1]Physics, Department of Physics, Guru Nanak college, Mumbai-37, India; [2]Physics, Department of Physics, University of Mumbai, Mumbai-98, India*

PN07 Oxygen vacancy and magnetism of a room temperature ferromagnet Co-doped TiO_2
Ikuo Nakai[1]*, Masashi Sasano[1], Yingjie Li[2], Ken Inui[1], Tomoya Korekawa[1], Hiroyuki Ishijima[1], Hisashi Katoh[1] and Makio Kurisu[3], *[1]Department of Electrical and Electronic Engineering, Graduate School of Engineering, Tottori University, Japan; [2]Inner Mongolia Key Laboratory for Physics and Chemistry of Functional Materials, Inner Mongolia Normal University, China; [3]Department of Physics, Graduate School of Science and Engineering, Ehime University, Japan*

PN08 Effect of annealing on the magnetic anisotropy of GaMnAs film with low Mn concentration
Hyehyeon Byeon[1], Yoonjung Gwon[1], Jaehyuk Won[1], Taehee Yoo[1], Sanghoon Lee[1]*, X. Liu[2] and J. K. Furdyna[2], *[1]Physics Department, Korea University, Korea; [2]Physics Department, University of Notre Dame, USA*

PN09 Low field magnetization reversal behavior of ferromagnetic GaMnAs film
Yoonjung Gwon[1], Hyehyeon Byeon[1], Jaehyuk Won[1], Hakjoon Lee[1], Sanghoon Lee[1]*, X. Liu[2] and J. K. Furdyna[2], *[1]Physics Department, Korea University, Korea; [2]Physics Department, University of Notre Dame, USA*

PN10 Half-metallic antiferromagnetism in the ordered $Cr_{1-x}Ca_xSb$ alloy from first-principles calculations
Guoying Gao* and Kailun Yao, *School of Physics, Huazhong University of Science and Technology, China*

PN11 Translation & rotation of diamagnetic material induced by a low field of a permanent magnet and terminal identification of a micron-sized particle
Keiji Hisayoshi and Chiaki Uyeda, *Osaka university, Japan*

PN12 Magnetoresistance effect in electron-injected p-type silicon
Michael P. Delmo*, Eiji Shikoh, Teruya Shinjo and Masashi Shiraishi, *Graduate School of Engineering Science, Osaka University, Japan*

PN13 First-principles investigation of the influence of adsorbed atom on the defect and impurity substitute graphene
Kengo Nakada[1] and Akira Ishii[2], *[1]JST-CREST, Japan; [2]Department of Applied Mathematics and Physics, Tottori University, Japan*

PN14 Room-temperature fabrication of highly transparent magnetic nanocomposite systems by aerosol deposition
Jae-hyuk Park* and Akedo Jun, *National Institute of Advanced Industrial Science and Technology (AIST), Japan*

PN15 Effect of transition metal (Co, Ni and Cu) doping on lattice volume, band gap, morphology and saturation magnetization of ZnO nanostructures
Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M S Anwar and Bon Heun Koo*, *Changwon National University, Korea*

PN16 Functionalized graphene as a room-temperature ferromagnetic semiconductor
Jeongmin Hong[1]*, Sandip Niyogi[2], Elena Bekyarova[2], Mikhail E. Itkis[2], Palanisamy Ramesh[2], Claire Berger[3], Walt A. Deheer[4], Robert C. Haddon[2] and Sakhrat Khizroev[5], *[1]Electrical and Computer Engineering, Florida International University, USA; [2]Department of Chemistry, Department of Chemical Engineering, Center for Nano Scale Science and Eng, University of California-Riverside, USA; [3]CNRS, Institut Neel, France; [4]School of Physics, Georgia Institute of Technology, USA; [5]Department of Electrical and Computer Engineering, Florida International University, USA*

PN17 Tuning of the curie temperature by varying reduction potential in electrochemically prepared thin films of Prussian blue analogue based molecular magnets
Pramod Bhatt*, M. D. Mukadam and S. M. Yusuf, *Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai-400085, India*

PN18 Evolution of multifunctional behavior in site specific cation substituted $Na_{0.5}Bi_{0.45}Gd_{0.05}Ti_{0.95}Mn_{0.05}O_3$ ceramics
T Karthik[1,2] and Saket Asthana[1]*, *[1]Department of Materials Science & Engineering, Indian Institute of Technology, Hyderabad, India; [2]Advanced Functional Materials Laboratory, Dept. of Physics, Indian Institute of Technology, Hyderabad, India*

PN19 Magnetic doping effect on physical properties of $PbPdO_2$
Kyujoon Lee, Seongmin Choo and Myung-hwa Jung*, *Sogang University, Korea*

PN20 An experimental approach using EPR and XMCD to explore hydrogen mediated ferromagnetism
Seunghun Lee[1], Bun-su Kim[1], Yong Nam Choi[2], Naoki Ishimatsu[3], Masahiro Sawada[3], Won-kyung Kim[1], Ji Hun Park[1], Yong Chan Cho[1] and Se-young Jeong[1]*, *[1]Cogno-Mechatronics Engineering, Pusan National University, Korea; [2]Korea Atomic Energy Research Institute, Korea; [3]Hiroshima University, Japan*

PN21 A role of mobility in hydrogen mediated ferromagnetism of ZnCoO
Ji Hun Park[1], Seunghun Lee[1], Won-kyung Kim[1], Jong Moon Shin[2], Yong Chan Cho[1], Chae Ryong Cho[2], Hideomi Koinuma[1] and Se-young Jeong[1]*, *[1]Dept. of Cogno-Mecatronics Engineering, Pusan National University, Korea; [2]Dept. of Nano Fusion Technology, Pusan National University, Korea*

PN22 Magnetic and magneto-optical properties of TiO_2:V semiconductor oxide films with various resistivity
Andrey F Orlov[1], Leonid A Balagurov[1], Ivan V Kulemanov[1], Elena A Petrova[1], Nikolai Perov[2]*, Elena A Gan'shina[2], Leonid Yu Fetisov[2], Anna S Semisalova[2], Anastasia D Rubacheva[2], Andrey Rogalev[3], Alevtina G Smekhova[4] and Lada V Yashina[2], *[1]Institute for Rare Metals, Moscow, 119017, Russian Federation, Russia; [2]Lomonosov Moscow State University, Russia; [3]European Synchrotron Radiation Facility, Grenoble Cedex, France; [4]European Synchrotron Radiation Facility, Grenoble Cedex, France; Lomonosov Moscow State University, Russia*

PN23 Magnetic properties and electrical conductivity on oxygen-deficient europium monoxide
Jun-young Kim[1]*, Pedro M.d.s. Monteiro[1], Kiyoung Lee[1], Adrian Ionescu[1], Stuart N Holmes[2], Crispin H.w. Barnes[1], Peter J Baker[3], Sean Langridge[3], Zaher Salman[4], Andreas Suter[4] and Thomas Prokscha[4], *[1]Department of Physics, Cavendish Laboratory, University of Cambridge, J J Thomson Avenue, Cambridge, CB3 0HE, United Kingdom; [2]Toshiba Cambridge Research Laboratory, 208 Cambridge Science Park, Milton Road, Cambridge, CB4 OGZ, United Kingdom; [3]ISIS, Harwell Science and Innovation Campus, STFC, Oxon OX11 0QX, United Kingdom; [4]Laboratory for Muon-Spin Spectroscopy, Paul Scherrer Institut, CH-5232 Villigen PSI, Switzerland*

PN24 Magnetism and optical properties of diluted magnetic semiconductor superlattice GaGdAs/GaAs with GaGdAs nanograins
Miyagawa Hayato*, Yuuki Uda, Shoutaro Matsumoto, Nakaba Funaki and Shyun Koshiba, *Faculty of Engineering, Kagawa University, Japan*

PN25 Ferromagnetism in hydrogenated fullerene
Kyu Won Lee, Gi-wan Jeon and Cheol Eui Lee*, *Physics, Korea University, Korea*

PN26 Enhancement of the magneto-optical effect by an addition of Co in pseudo-quaternary II-VI magnetic semiconductor CdMnCoTe films
Masaaki Imamura* and Keisuke Ninomiya, *Electrical Engineering, Fukuoka Institute of Technology, Japan*

PN27 **Origin of ferromagnetism in Co-doped (La,Sr)TiO_3 diluted magnetic semiconductors**
Xuefeng Wang[1], Fengqi Song[2], Yi Shi[1], Rong Zhang[1] and Jianbin Xu[3],*[1]School of Electronic Science and Engineering, Nanjing University, China; [2]Department of Physics, Nanjing University, China; [3]Department of Electronic Engineering, The Chinese University of Hong Kong, China*

PN28 **Two dimensional growth of Nb doped $SrTiO_3$ thin films and its superlattices**
Abhijit Biswas, Yong Woo Lee, Min Hwa Jung and Yoon Hee Jeong*, *Department of Physics, Pohang University of Science and Technology, Korea*

PN29 **Anomalous hall effect in ferromagnetic nanocomposite FeGa/Fe_3Ga thin films**
Dang Duc Dung[1], Duong Anh Tuan[2], Yooleemi Shin[2] and Sunglae Cho[2]*, *[1]Department of General Physics, School of Engineering Physic,Ha Noi University of Science and Technology, [1]Dai Co Viet road, Ha Noi, Viet Nam; [2]Department of Physics, University of Ulsan, Ulsan 680-749, Korea*

PN30 **MnAs nanoclusters embedded in GaAs: Magnetism and transport properties**
Duong Van Thiet[1], Dang Duc Dung[2], Yooleemi Shin[3] and Sunglae Cho[3]*, *[1]Department of Physics, University of Ulsan, Ulsan 680-749, Korea; [2]Department of General Physics, School of Engineering Physics,Ha Noi University of Science and Technology, [1]Dai Co Viet road, Ha Noi, Viet Nam; [3]Department of Physics, University of Ulsan, Ulsan 680-749, Korea*

PN31 **Half-metallic and ferromagnetic properties of carrier doping in $Zn_{1-x}Cu_xO$**
Byung-sub Kang[1], Kie-moon Song[1], Yong-sik Lim[1], Kyeong-sup Kim[2], Young-yeal Song[2] and Seong-cho Yu[2], *[1]Dept. of Nano science and Mechanical engineering, Konkuk University, Korea; [2]Dept. of Physics and BK21 Physics Program, Chungbuk National University, Korea*

PO: Interdisciplinary topics

July 9 (Mon), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Joerg Schotter (AIT Austrian Institute of Technology, Austria)

PO01 **Synthesis and characterization of surface functionalized magnetic polymer microspheres with multi-shell structure**
Zuli Liu*, Qing Li and Kailun Yao, *Physics, Huazhong University of Science and Technology, China*

PO02 **Production of $Fe_{3-x}Zn_xO_4$ nanoparticles for agents in hyperthermia treatment**
Hiromasa Takeuchi*, Akinobu Kurokawa, Takuya Yanoh, Shinya Yano and Yuko Ichiyanagi, *Yokohama National University, Japan*

PO03 **Gene delivery using polyethylenimine-coated magnetic nanoparticles by static and oscillating magnetic field**
Yoshiyuki Takahashi[1], Satoshi Ota[1], Asahi Tomitaka[1], Tsutomu Yamada[1], Daisuke Kami[2], Shogo Takeda[3], Masatoshi Watanabe[3] and Yasushi Takemura[1], *[1]Electrical and Computer Engineering, Yokohama National University, Japan; [2]Kyoto Prefectural University of Medicine, Japan; [3]Materials and Chemical Engineering, Yokohama National University, Japan*

PO04 (Withdrawn) **Fabrication of QD-anchored magnetic nanocomposites for biomedical applications**
Hangdeok Oh and Sang-wha Lee*, *Department of Chemical and Bio Engineering, Kyungwon University, Korea*

PO05 **Determination of biomolecule interaction in magnetic particle by voltammetry and ac impedance**
Hoon Song and D. G. Park*, *Korea Atomic Energy Research Institute, Korea*

PO06 **The effects of pulsed magnetic field stimulus on electromyographic activity**
Juyeon Seo[1], Yongjin Kim[1], Jaehyun Kim[1], Sunghyun Kim[1], Do Gwen Hwang[1], Yun-yeop Cha[2] and Hyun Sook Lee[1]* *[1]Department of Oriental Biomedical Engineering, Sangji University, Korea; [2]Department of Oriental rehabilitation medicine, Sangji University, Korea*

PO07 **Magnetic anisotropy of $Co_dFe_{3-d}O_4$ nanoparticles for applications in magnetic hyperthermia**
Costica Caizer*, *Electricity and Magnetism, West University of Timisoara, Romania*

PO08 **Magnetic nanoemulsion as advanced drug delivery system applied to synergic procedures in the photodynamic therapy and hyperthermia trials using human mesenchymal stem cells as biological model**
Fernando Lucas Primo[1], Daniela Regina Jardim[1], Paulo Cesar Morais[2] and Antonio Claudio Tedesco[1]*, *[1]Chemistry, Nanotechnology and Tissue Engineering Center, FFCLRP, Sao Paulo University, Ribeirao Preto, SP, Brazil; [2]Physical, Brasilia University - UnB, Physical Institute, Brasilia-DF, 70910-900., Brazil*

PO09 **The morphological change of red blood cells in the hand exposed to the stimulus of strong pulse magnetic field**
Jinyong Lee[1], Hyun Sook Lee[1], Jun Sang Yu[2] and Do Guwn Hwang[1]*, *[1]Oriental Medical Engineering, Sangji University, Korea; [2]Oriental Medical, Sangji University, Korea*

PO10 **An analytical comparison in electoencephalography and electrocardiography during stimulus of pulsed magnetic field and acupuncture on acupoint PC9**
Jinyoung Lee[1], Do Guwn Hwang[1], Yun-Yeop Cha[2] and Hyun Sook Lee[1]*, *[1]Department of Oriental Biomedical Engineering, Sangji University, Korea; [2] Department of Oriental rehabilitation medicine, Sangji University, Korea*

PO11 **Reliability of a head movement compensation method based on minimum norm estimation for magnetoencephalographic recordings**
Sanghyun Lim and Kiwoong Kim*, *Brain and Cognition Measurement Lab, KRISS, Korea*

PO12 **The effect of small quantities of irradiation damage on the magnetic properties of Steel 316.**
Robert Aldus[1], Jack Muir[1], Greg Lumpkin[2] and Paolo Imperia[1]*, *[1]bragg institute, ANSTO, Australia; [2]IME, ANSTO, Australia*

PO13 **Study of a hybrid magnet array for an electrodynamic maglev control**
Chan Ham[1], Kurt Lin[2], Younghoon Joo[3] and Wonsuk Ko[4]*, *[1]Mechatronics Engineering, Southern Polytechnic State University, USA; [2]Mechanical, Materials, and Aerospace, University of Central Florida, USA; [3]Kunsan Nat'l University, Korea; [4]Kyungwon.Univ, Korea*

PO14 **FEM simulation of magnetic treatment of surface vessel**
Yongmin Kim[1], Hwiseok Kim[2], Kwan-seob Yoon[3], Seon-ho Lim[3], Jaewon Doh[2], Young-hak Kim[4] and Kwang-ho Shin[1]*, *[1]Dept. of Information and Communication Engineering, Kyungsung University, Korea; [2]S/W R&D Center, Project 5 team, LIGNex1, Korea; [3]S/W R&D Center, Project 4 team, LIGNex1, Korea; [4]Dept. of Information and Communication Engineering, Pukyong National University, Korea*

PO15 **Magnetically exchange-coupled nanoparticles as efficient heat inductor**
Seung Ho Moon, Jung-tak Jang, Seung-hyun Noh, Jae-hyun Lee and Jinwoo Cheon*, *Chemistry, Yonsei University, Korea*

PO16 **Theranostic magnetic nanoparticles**
Seung-hyun Noh, Dongwon Yoo, Jae-hyun Lee, Jung-tak Jang, Seung Ho Moon and Jinwoo Cheon*, *Center for Evolutionary Nanoparticles, Korea*

PO17 **Ion-texturing & Dynamics in Layered Compounds: From Electric Automobiles to Frustrated Magnetism**
Martin Mansson[1]*, Jun Sugiyama[2], Kazuhiko Mukai[2], Yutaka Ikedo[3], Hiroshi Nozaki[2], Kazuya Kamazawa[2], Masashi Harada[2], Marisa Medarde[4], Fanni Juranyi[5], Jorge Gavilano[5], James S. Lord[6], Isao Watanabe[7], Ekaterina Pomjakushina[4], Kazimierz Conder[4], Vladimir Pomjakushin[5], Tsutomu Ohzuku[8] and Tsunehiro Takeuchi[9], *[1]Lab. for Solid State Physics, ETH Zurich, Switzerland; [2]Toyota Central Research and Development Labs. Inc., Japan; [3]Muon Science Laboratory, KEK, Japan; [4]LDM, Paul Scherrer Institut, Switzerland; [5]Lab. for Neutron Scattering, Paul Scherrer Institut, Switzerland; [6]ISIS, Rutherford Appleton Laboratory, United Kingdom; [7]Muon Science Laboratory, RIKEN, Japan; [8]Department of Applied Chemistry, Osaka City University, Japan; [9]Department of Applied Physics, Nagoya University, Japan*

PO18 Large resistive switching phenomenon induced by magnetic field in nano conduction path formedin SiO_2
Shintaro Otsuka, Tomohiro Shimizu*, Takashi Kato, Takuya Kyomi and Shoso Shingubara, *Kansai University, Japan*

PO19 Size dependence simulation of saturated field in circular permalloy
Xinghao Hu, Byunghwa Lim, Ilgyo Jeong and Cheolgi Kim*, *Department of Materials Science and Engineering, Chungnam National University, Korea*

PO20 A new definition of magneto-mechatronics and applications
Sung Hoon Kim*, Jaewon Shin, Shuichiro Hashi and Kazushi Ishiyama, *Research Institute of Electrical communication, Tohoku University, Japan*

PO21 AC magnetic field frequency dependence of drug release characteristics for magnetic hyperthermia based polymer-drug encapsulate system for cancer treatment applications
Tejabhiram Yadavalli[1], Shivaraman Ramasamy[1], Gopalakrishnan Chandrasekaran[1] and Ramasamy R[2], *[1]Nanotechnology Research Centre, SRM University, India; [2]School of Pharmacy, SRM University, India*

PO22 Account of the image forces in the $Bi_{1-x}Sb_x$-insulator film structures.
Konstantin Nicolaevich Kashirin, *The Russian State Agrarian University-Moscow Timiryasev Agricultural Academy, Kaluga Branch, Russia*

PO23 Time-resolved pump-probe measurement of polarization rotation in nano-structured chiral metamaterial
J. H. Woo[1], H. Y. Shin[1], M. J. Gwon[1], M. Vomir[2], M. Barthelemy[2], D. W. Kim[1], S. Yoon[1], J. Y. Bigot[2] and J. W. Wu[1]*, *[1]Department of Physics & CNRS- Ewha International, Ewha Womans University, Korea; [2]CNRS-IPCMS, University of Strasbourg, France*

PO24 Structural and magnetic properties of glassy like carbon synthesized by pyrolysis of sucrose
Shivaraman Ramaswamy* and C Gopalakrishnan, *Nanotechnology Research Center, SRM University, India*

PO25 Simulation of energy dispersive mode for RITA-type cold neutron triple axis spectrometer SIKA
Guochu Deng[1]*, Peter Vorderwisch[2], Chun-ming Wu[2], Garry Mcintyre[1] and Wen-hsien Li[2], *[1]Bragg Institute, Australian Nuclear Science and Technology Organization, Australia; [2]Department of Physics, National Central University, Jhongli 32054, Taiwan, Australia*

PO26 Efficiency of Energy base deperm protocol
Yongmin Kim[1], Young-hak Kim[2] and Kwang-ho Shin[1]*, *[1]Dept. of Information and Communication Engineering, Kyungsung University, Korea; [2]Pukyong National University, Korea*

PO27 Effect of a magnetic field on mixed convection of a nanofluid in a square cavity
G. A. Sheikhzadeh[1]*, S. Mazrouei Sebdani[1], M. Mahmoodi[2], Elham Safaeizadeh[3] and Sayed Ebrahim Hashemi[1] *[1]Mechanical Engineering Department, University of Kashan, Iran; [2]Mechanical Engineering Department, Amirkabir University of Technology, Iran; [3]Department of Mathematics, Payame Noor University, Najafabad, Isfahan, Iran*

PO28 Magnetohydrodynamic free convection in a square cavity heated from below and cooled from other walls
Ali Akbar Abbasian Arani*, Mostafa Mahmoodi and Saeed Mazrouei Sebdani, *Mechanical Engineering, University of Kashan, Iran*

PO29 Interaction of a magnetic field and buoyancy force in a square cavity filled with a fluid with low Prandtl number
G. A. Sheikhzadeh[1]*, S. E. Hashemi[1], S. Mazrouei Sebdani[1], M. Mahmoodi[2] and Elham Safaeizadeh[3], *[1]Mechanical Engineering Department, University of Kashan, Iran; [2]Mechanical Engineering Department, Amirkabir University of Technology, Tehran, Iran; [3]Department of Mathematics, Payame Noor University, Najafabad, Isfahan, Iran*

PO30 Numerical study of magnetic field effects on flow field and heat transfer in a cavity filled with porous materials
G. A. Sheikhzadeh*, M. Aliakbari Miyan Mahaleh, A. A. Abbasian Arani and S. Mazrouei Sebdani, *Mechanical Engineering Department, University of Kashan, Iran*

PO31 Numerical simulation of magnetohydrodynamic Benard convection in a shallow enclosure
G. A. Sheikhzadeh*, M. Mahmoodi and S. Mazrouei Sebdani, *Mechanical Engineering Department, University of Kashan, Iran*

PO32 Near-electrode effcets of magnetic fields in electrochemistry
Michael Coey and Peter Dunne, *Physics, Trinity College dublin, Ireland*

QA: Multiferroics II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jae-Ho Chung (Korea University, Korea)

QA01 Resonant magnetic x-ray scattering: Beamline P09 at PETRA III at DESY
Joerg Strempfer, Sonia Francoual, Dinesh K. Shukla and Arvid Skaugen, *DESY, Germany*

QA02 Magnetic and dielectric properties of $FeTiO_3$
Takayasu Kiyokawa[1]*, Shigeki Yamada[1] and Takatsugu Masuda[2], *[1]Nanosystem Science, Yokohama City University, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan*

QA03 (Withdrawn) Theoretical study of tuning polarization and magnetism of $BiCoO_3$
Yu-jun Zhao and Xing-yuan Chen, *Department of Physics, South China University of Technology, China*

QA04 Soft x-ray synchrotron radiation spectroscopy study of $Co_{0.6}Fe_{0.9}Mn_{1.5}O_4$ spinel with nano-checkerboard patterns
D.H. Kim[1], Jihoon Hwang[1], Eunsook Lee[1], S. W. Cheong[2], B. G. Park[3], J. Y. Kim[3] and J. S. Kang[1]*, *[1]Department of Physics, The Catholic University of Korea, Korea; [2]Department of Physics and Astronomy, Rutgers University, USA; [3]Pohang Accelerator Laboratory, POSTECH, Korea*

QA05 Zn-substitution effects in multiferroic $Cu_3Mo_2O_9$
Haruhiko Kuroe[1]*, Kento Aoki[1], Ryusuke Itoh[1], Tomohiro Hosaka[1], Takuya Hasegawa[1], Suguru Hachiuma[1], Mitsuru Akaki[1], Hideki Kuwahara[1], Tomoyuki Sekine[1], Masashi Hase[2], Kunihiko Oka[3], Toshimitsu Ito[3] and Hiroshi Eisaki[3] *[1]Department of Physics, Sophia University, Japan; [2]National Institute for Material Science (NIMS), Japan; [3]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

QA06 Effects of bismuth substitution on the magnetic properties of $Bi_xCo_{2-x}MnO_4$
Maria Elenice Dos Santos[1], Paulo Noronha Lisboa-filho[2] and Octavio Pena[1], *[1]Institut des Sciences Chimiques de Rennes, Universite de Rennes 1, France; [2]Laboratorio de Materiais Eletronicos, Universidade Estadual Paulista, Brazil*

QA07 Cross-correlation effects in multiferroic $Cu_3Mo_2O_9$
Ryusuke Itoh[1]*, Tomohiro Hosaka[1], Takuya Hasegawa[1], Haruhiko Kuroe[1], Tomoyuki Sekine[1], Masashi Hase[2], Kunihiko Oka[3], Toshimitsu Ito[3] and Hiroshi Eisaki[3] , *[1]Sophia University, Japan; [2]National Institute for Materials Science (NIMS), Japan; [3]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

QA08 Nonlinear current-voltage characteristics of $(La_{0.5}Eu_{0.5})_{0.7}Pb_{0.3}MnO_3$ Single crystals: Possible manifestation of the internal heating of charge carriers
Kirill Shaykhutdinov*, *Kirensky Institute of Physics, Russia*

QA09 **High field phase diagram in multiferroic $Cu_3Mo_2O_9$**
Haruhiko Kuroe[1]*, Ryo Kino[1], Ryusuke Itoh[1], Tomohiro Hosaka[1], Takuya Hasegawa1, Tomoyuki Sekine[1], Takumi Kihara[2], Masashi Tokunaga[2], Masashi Hase[3], Kanji Takehana[3], Hideaki Kitazawa[3], Kunihiko Oka[4], Toshimitsu Ito[4] and Hiroshi Eisaki[4], *[1]Department of Physics, Sophia University, Japan; [2]The Institute for Solid State Physics, The University of Tokyo, Japan; [3]National Institute for Materials Science (NIMS), Japan; [4]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

QA10 **Magnetoelectric effect in Ca_2FeAlO_5**
Nobuyuki Abe[1]*, Khanh Duy Nguyen[2], Yoichi Nii[2], Yutaro Kitagawa[3] and Taka-hisa Arima[1], *[1]Department of Advanced Materials Science, The University of Tokyo, Japan; [2]Department of Physics, Tohoku University, Japan; [3]Department of Applied Physics, The University of Tokyo, Japan*

QA11 **Electronic and magnetic phase separation in the semimetallic ferromagnet EuB_6**
Pintu Das[1], Adham Amyan[1], Jens Brandenburg[1], Jens Mueller[1]*, Peng Xiong[2], Stephan Von Molnar[2] and Zachary Fisk[3] *[1]Institute of Physics, Goethe University Frankfurt, Germany; [2]Dept. of Physics, Florida State University, Tallahassee, USA; [3]Dept. of Physics, University of California, Irvine, USA*

QA12 **Study of magnetic and magnetodielectric properties of perovskite $YbCrO_3$**
Jong-suck Jung, Ayato Iyama*, Hiroyuki Nakamura, Yusuke Wakabayashi and Tsuyoshi Kimura, *Division of Materials Physics, Osaka University, Japan*

QA13 **Interplay among spin, orbital, and lattice degrees of freedom in a frustrated spinel Mn_3O_4**
Yoichi Nii[1]*, Hiroshi Umetsu[1], Hajime Sagayama[2], Nobuyuki Abe[2], Kouji Taniguchi[2] and Taka-hisa Arima[2], *[1]Dept. of Phys., Tohoku University, Japan; [2]Dept. of Advanced Mater. Sci., The University of Tokyo, Japan*

QA14 **Structural and dielectric study of hexagonal $Y_{0.8}Sr_{0.2}MnO_3$ Compound**
Rajesh K. Thakur[1]*, Rasna Thakur[2], A. Bharathi[3] and N.k. Gaur[2], *[1]Department of Physics, Barkatullah University, Bhopal, India; 2Department of Physics, Barkatullah University, Bhopal, India; 3Condensed Matter Physics Division, Materials Science Group, Indira Gandhi Centre for Atomic Research, Kalpakkam, India*

QA15 **Controlling the superparamagnetic limit using the magnetoelectric effect**
Hyungsuk K. D. Kim[1], Laura Schelhas[2], Sarah Tolbert[2] and Gregory P. Carman[3]*, *[1]Department of Materials Science and Engineering, UCLA, USA; [2]Department of Chemistry and Biochemistry, UCLA, USA; [3]Department of Mechanical and Aerospace Engineering, UCLA, USA*

QA16 **Magneto-Capacitance Effect and Electric Polarization in Spinel Co_2MnO_4**
Sun Hee Kang[1], San Youn Park[2], Ill Won Kim[1], Yoon Hee Jeong[3] and Tae Yeong Koo[4]*, *[1]Physics Department, Ulsan University, Korea; [2]Physics Department, Pohang Univsersity of Science and Technology, Korea; [3]Physics Department, Pohang University of Science and Technology, Korea; [4]Pohang Accelerator Laboratory, Korea*

QA17 **Magnetically induced polarization in copper metaborate CuB_2O_4**
Khanh Duy Nguyen[1], Nobuyuki Abe[2], Masashi Tokunaga[3], Mitsuru Saito[1] and Taka-hisa Arima[2]*, *[1]Deparment of Physics, Tohoku University, Japan; [2]Department of Advanced Materials Science, The University of Tokyo, Japan; [3]Institute for Solid State Physics, The University of Tokyo, Japan*

QA18 **Impedance spectroscopy of ferromagnetic oxide: $Pr_{0.6}Sr_{0.4}MnO_3$**
D V Maheswar Repaka[1] and Mahendiran Ramanathan[2], *[1]PHYSICS, National University of Singapore, Singapore; [2]Physics, National University of Singapore, Singapore*

QA19 **Structures and magnetic properties of $Tm_{1-y}Y_yMn_{1-x}Co_xO_3$**
Toshiyuki Tanaka, Yusuke Amakai, Naoki Momono, Shigeyuki Murayama and Hideaki Takano*, *Department of Applied Sciences, Muroran Institute of Technology, Japan*

QA20 **Complex magnetic and electric orders in multiferroic Co3TeO6**
Chin-wei Wang[1], Chih-jen Wang[1], Wen-hsien Li[1]*, Chih-chieh Chou[2], Hung-duen Yang[2], Yang Zhao[3], Sung Chang[3], Jeffrey W. Lynn[3] and Helmuth Berger[4], *[1]Department of Physics and Center for Neutron Beam Applications, National Central University, Taiwan; [2]Department of Physics and Center for Nanoscience and Nanotechnology, National Sun Yat-Sen University, Taiwan; [3]NIST Center for Neutron Research, National Institute of Standards and Technology, Gaithersburg, USA; [4]Institute of Physics of Complex Matter, EPFL, Lausanne, Switzerland*

QA21 **Annealing induced colossal magnetocapacitance and colossal magnetoresistance in in-doped $CdCr_2S_4$**
Zhaorong Yang*, *Institute of Solid State Physics, Chinese Academy of Sciences, China*

QA22 (Withdrawn) **Critical dynamics in $LiCuVO_4$**
Christoph Grams[1]*, Maximilian Schalenbach[1], Daniel Niermann[1], Petra Becker[2] and Joachim Hemberger[1], *[1]II. Physikalisches Institut, University of Cologne, Germany; [2]Institut fur Kristallographie, University of Cologne, Germany*

QA23 **High quality crystal growth and Low temperature diffuse scattering studies**
Shilpa Adiga*, Yixi Su, Jrg Persson and Manuel Angst, *PGI-4, Forschungszentrum Juelich, Germany*

QA24 **Anomalous magnetodielectric and magnetostrictive effect via spin reorientation in terbium iron garnet**
Ki-myung Song[1], Seongsu Lee[2] and Namjung Hur[1]*, *[1]Dept. of physics, Inha univ., Korea; [2]Neutron Science Division, Korea Atomic Energy Research Institute, Korea;*

QA25 **Template based synthesis of multiferroic $BiMnO_3$ nanotubes and shape dependent study of its magnetic properties**
Geo George Phillip, Anuraj Sundar, Mahdiyar Bagheri, Helen Annal Therese* and Gopalakrishnan Chandrasekaran, *Nanotechnology Research Centre, SRM University, India*

QA26 **Solitary reentrant superconductivity prediction in asymmetrical ferromagnet-superconductor ferromagnet trilayer**
Yurii N. Proshin*, Marat M. Khusainov, Arthur Minnullin and Mansur G. Khusainov, *Theoretical Physics Department, Kazan Federal University, Russia*

QA27 **Tuning magnetic order, electromagnons and exchange bias by epitaxial strain in $BiFeO_3$ thin films**
Manuel Bibes[1]*, Daniel Sando[1], Arsene Agbelele[2], Maximilien Cazayous[3], Ingrid Infante[4], Wei Ren[5], Sergey Lisenkov[6], Cecile Carretero[1], Agnes Barthelemy[1], Laurent Bellaiche[5], Jean Juraszek[2] and Brahim Dkhil[4], *1Unite Mixte de Physique CNRS/Thales, France; [2]Universite de Rouen, France; [3]Universite Paris Diderot, France; [4]Ecole Centrale Paris, France; 5University of Arkansas, USA; [6]Universiy of South Florida, USA*

QB: Superconductivity II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: L. Balicas (NHMFL, USA)

QB01 **Magnetic-enhanced electron-phonon coupling and vacancy effect in '111' type iron pnictides from first-principles calculations**
Mei Liu[1] and Bin Li[2],*[1]Dept. of Physics, Southeast University, China; [2]Department of Physics, Southeast University, China*

QB02 **Penetration depth and knight shift in iron-based superconductor $Ba_{1-x}K_xFe_2As_2$**
Kazuki Ohishi[1]*, Yasuyuki Ishii[2], Isao Watanabe[3], Taku Saito[4], Hideto Fukazawa[4], Yoh Kohori[4], Kunihiro Kihou[5], Chul-ho Lee[5], Hijiri Kito[5], Akira Iyo[5] and Hiroshi Eisaki[5], *[1]Research Center for Neutron Science and Technology, CROSS, Japan; [2]Department of Physics, Tokyo Medical University, Japan;[3]Advanced Meson Science Laboratory, RIKEN, Japan; [4]Department of Physics, Chiba University, Japan; [5]AIST, Japan*

QB03 Raman scattering study of the lattice dynamics in LiFeAs and $Fe_{1+y}Te_{1-x}Se_x$
Youngje Um, *Max-Planck institute, Stuttgart, Germany*

QB04 Magnetism and Superconductivity in $Rb_xFe_{2-y}Se_2$
Kazuki Ohishi[1]*, Shouhei Kototani[2], Shunsuke Saiki[2], Yoshiaki Kobayashi[2], Masayuki Itoh[2] and Masatoshi Sato[1], *[1]Research Center for Neutron Science and Technology, CROSS, Japan; [2]Department of Physics, Nagoya University, Japan*

QB05 (Withdrawn) Magnetic Resonant mode in the Spin-Excitation Spectrum of Superconducting Rb2Fe4Se5 Single Crystals
Jitae Park, *Max-Planck-Institute for Solid State Research, Germany*

QB06 Magnetic field-induced superconductivity in the canted antiferromagnet $Eu(Fe_{0.81}Co_{0.19})_2As_2$
Vinh Hung Tran[1]*, T A Zaleski[2], Z Bukowski[1], L M Tran[1] and A J Zaleski[1], *[1]Institute of Low Temperature and Structure Research, Polish Academy of Sciences, 50-950 Wroclaw, Poland; [2]Institute of Low Temperature and Structure Research, Polish Academy of Sciences, 50-950, Poland*

QB07 Superconductivity and spin fluctuations in $Ca_{1-x}Pr_xFe_2As_2$ superconductors studied by 75As NMR
Long Ma[1]*, Gaofeng Ji[1], Jia Dai[1], S. R. Saha[2], J. Paglione[2] and Weiqiang Yu[1], *[1]Department of Physics, Renmin University of China, China; [2]Center for Nanophysics and Advanced Materials, Department of Physics, University of Maryland, USA*

QB08 Importance and details of the spin excitation spectra in high-Tc pnictide superconductors
Tanmoy Das and A. V. Balatsky, *Theoretical Division, Los Alamos National Laboratory, USA*

QB09 Angular dependence of the resistive upper critical field of an iron-based superconductor Fe(Te,Se) in high magnetic fields
Takanori Kida[1], Yoshikazu Mizuguchi[2], Yoshihiko Takano[3] and Masayuki Hagiwara[1], *[1]KYOKUGEN, Osaka university, 1-3 Machikaneyama, Toyonaka, Osaka 560-8531, Japan; [2]Grad. Sch. Sci. Eng., Tokyo Metropolitan University, 1-1 Minami-Osawa, Hachioji, Japan; [3]National Institute for Materials Science, 1-2-1 Sengen, Tsukuba 305-0047, Japan*

QB10 Ab initio evidence of strong correlation and large Mott proximity in iron-based superconductors
Takahiro Misawa, Kazuma Nakamura and Masatoshi Imada, *Dept. Appied Physics, Univ. of Tokyo, Japan*

QB11 As-NQR study of $LaFeAsO_{1-x}F_x$
Toshihide Oka[1]*, Z Li[2], S Kawasaki[1], G F Chen[2], N L Wang[2] and G -q Zheng[1], *[1]Department of Physics, Okayama uiversity, Japan; [2]Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Science, China*

QB12 Interplay between 3d- and 4f-electrons in $ReFe_{1-x}Co_xAsO$ (Re = Ce,Gd)
T. Shang[1], L. Yang[1], Y. Chen[1], L. Jiao[1], J. L. Zhang[1], J. Chen[1], H. Q. Yuan[1]*, N. Cornell[2], A. Howard[2], A. Zakhidov[2], M. B. Salamom[2], F. Ronning[3], E. D. Bauer[3] and J. D. Thompson[3], *[1]Department of Physics and Center for Correlated Matter, Zhejiang University, China; [2]UTD-NanoTech Institute, The University of Texas at Dallas, USA; [3]Los Alamos National Laboratory, USA*

QB13 Anisotropic Hc2 curves determined up to 92 T and two-band superconductivity in $Ca_{10}(Pt_4As_8)((Fe_{1-x}Pt_x)_2As_2)_5$ superconductor
Eundeok Mun[1], Ni Ni[2], Jared M Allred[2], Robert J Cava[2], Oscar Ayala[1], Ross D Mcdonald[1], Neil Harrison[1] and Vivien S Zapf[1], *[1]Nationa High Magnetic Field Lab, Los Alamos National Lab, USA; [2]Department of Chemistry, Princeton University, USA*

QB14 (Withdrawn) Effect of Ni-doping on superconductivity and magnetism in $Eu_{0.5}K_{0.5}Fe_2As_2$
Anupam Guleria[1], Vivek Kumar Anand[2], P.l. Paulose[2], S. Ramakrishnan[2], C. Geibel[3] and Z. Hossain[1]*, *[1]Department of Physics, Indian Institute of Technology, Kanpur, India; [2]DCMP&MS, Tata Institute of Fundamental Research, Homi Bhabha Road, Mumbai-400 005, India; [3]Max-Planck Institute for Chemical Physics of Solids 01187 Dresden, Germany*

QB15 75As NMR/NQR study of hole-doped superconductor $Ba_{1-x}K_xFe_2As_2$
Masanori Hirano[1], Yuji Yamada[1], Taku Saito[1], Ryo Nagashima[1], Hideto Fukazawa[1], Yoh Kohori[1]*, Yuji Furukawa[2], Kunihiro Kihou[3], Chul-ho Lee[3], Akira Iyo[3] and Hiroshi Eisaki[3], *[1]Department of Physics, Chiba University, Japan; [2]Ames Laboratory and Department of Physics and Astronomy, Iowa State University, USA; [3]National Institute of Advanced Industrial Science and Technology, Japan*

QB16 Homogeneous coexistence and phase segregation in the 1111 iron-based pnictides studied via NMR
Naoki Fujiwara[1]*, Satoru Matsuishi[2], Yoichi Kamihara[3] and Hideo Hosono[2], *[1]Gradutate School of Human & Environmental Studies, Kyoto University, Japan; [2]Frontier Research Center (FRC), Tokyo Institute of Technology, Japan; [3]Faculty of Science & Technology, Keio University, Japan*

QB17 NMR study of Fe-based superconductors $K_xFe_{2-y}Se_2$
Yuusuke Tomita[1], Hisashi Koteawa[1]*, Hideki Tou[1], Yoshikazu Mizuguchi[2], Hiroyuki Takeya[2] and Yoshihiko Takano[2] *[1]Department of physics, Kobe University, Japan; [2]NIMS, Japan*

QB18 (Withdrawn) Spectroscopy and anisotropies in the magnetic state of iron pnictides
Belen Valenzuela, Maria Jose Calderon, Gladys Leon, Noel A. Garcia and Elena Bascones*, *Theory and Simulations of Materials, Instituto de Ciencia de Materiales de Madrid, Spain*

QB19 (Withdrawn) Magnetic interactions in iron pnictides
Maria Jose Calderon, Gladys Leon, Belen Valenzuela and Elena . Bascones*, *Theory and Simulations of Materials, Instituto de Ciencia de Materiales de Madrid, Spain*

QB20 Te-doped $K_{0.80}Fe_{1.81}Se_{2-x}Te_x$ single crystals
C T Lin*, *Crystal Growth, Max Planck Institute for Solid State Research, Germany*

QB21 High-pressure resonant x-ray emission study of $Fe_{1.01}Se$ superconductors
Jin-ming Chen, S. C. Haw, J. M. Lee, S. A. Chen, K. T. Lu, N. Hiraoka, H. Ishii and K. D. Tsuei, *National Synchrotron Radiation Research Center, Taiwan*

QB22 Microscopic coexistence and competition of magnetism and superconductivity in $Ba_{1-x}K_xFe_2As_2$: A structural, magnetic, and superconducting phase diagram
Gwendolyne Pascua[1], Hubertus Luetkens[1], Erwin Wiesenmayer[2], Zurab Shermadini[1], Rustem Khasanov[1], Alex Amato[1], Hans-henning Klauss[3] and Dirk Johrendt[2], *[1]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland; [2]Department Chemie, Ludwig-Maximilians-Universitaet Muenchen, D-81377 Muenchen, Germany; [3]Institut fuer Festkoerperphysik, TU Dresden, DE-01069 Dresden, Germany*

QB23 Anomalous superconducting phase in $LaFeAsO_{1-x}H_x$ studied via 75As NMR
N. Fujiwara[1]*, S. Tsutsumi[1], S. Iimura[2], S. Matsuishi[2] and H. Hosono[2],*[1]Gradutate School of Human & Environmental Studies, Kyoto University, Japan;[2]Frontier Research Center (FRC), Tokyo Institute of Technology, Japan*

QB24 Multi-frequency ESR in $EuFe_2As_2$
Masami Ikeda[1], Tatsuya Kobayashi[2], Wataru Hirata[2], Shigeki Miyasaka[2], Setsuko Tajima[2] and Masayuki Hagiwara[1] *[1]KYOKUGEN, Osaka University, 1-3 Machikaneyama, Toyonaka, Osaka 560-8531, Japan; [2]Dep. of Phys., Faculty of Science, Osaka University, 1-1 Machikaneyama, Toyonaka, Osaka 560-0043, Japan*

QB25 Analysis of the critical current density and flux pinning properties in iron-based $Ba_{0.55}K_{0.45}Fe_2As_2$ high T_c superconductor
Dawood Ahmad[1], I S Park[1], G C Kim[1], Rock Kil Ko[1,2], J H Lee[1], and Y C Kim[1], *[1]Department of Physics, Pusan National University, Korea; [2]Korea Electrotechnology Research Institute, Changwon 641-120, Korea*

QB26 **In-plane anisotropy of magnetic and electric properties of the Fe pnictide $Ba(Fe_{1-x}Co_x)_2As_2$**
Yoshiaki Kobayashi[1]*, Akihiro Ichikawa[1], Masayuki Itoh[1] and Masatoshi Sato[2], *[1]Department of Physics, Graduate School of Science, Nagoya University, Japan; [2]Research Center For Neutron Science And Technology, CROSS, Japan*

QB27 **Vortex tunneling spectra of iron-pnictide superconductors**
Yuhei Kikuchi* and Hiroki Tsuchiura , *Applied Physics, Tohoku University, Japan*

QB28 **Direct observation of superconducting gaps and their anisotropies in $Ba_{1-x}K_xFe_2As_2$**
Y. Ota[1]*, K. Okazaki[2], Y. Kotani[2], T. Shimojima[3], T. Kiss[4], C. - T. Chen[5], S. Watanabe[6], K. Kihou[7], C. H. Lee[7], A. Iyo[7], H. Eisaki[7], T. Saito[8], H. Fukazawa[9], Y Kohori9 and S. Shin[10], *[1]ISSP, Japan; [2]ISSP, JST-CREST, Japan; [3]Univ. of Tokyo, Japan; [4]Osaka Univ., Japan; [5]CAS, China; [6]Tokyo Univ. of Sci., Japan; [7]AIST, JST-TRIP, Japan; [8]Chiba Univ., Japan; [9] ST-TRIP, Chiba Univ., Japan; [10]ISSP, JST-CREST, JST-TRIP, RIKEN, Japan*

QB29 **Contrasting superconducting property in Fe-based superconductors $(Ca_4Al_2O_{6-y})(Fe_2Pn_2)$[Pn=As and P]**
Hiroaki Kinouchi[1], Hidekazu Mukuda[1], Mitsuharu Yashima[1], Yoshio Kitaoka[1], Chul-ho Lee[2], Parasharam M. Shirage[2], Hiroshi Eisaki[2] and Akira Iyo[2], *[1]Department of Materials Engineering Science, Graduate School of Engineering Science, Osaka University, Japan; [2]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

QB30 **Superconducting properties of $FeTe_{1-x}Se_x$ single crystals: impact of disorder and hydrostatic pressure**
Roman Puzniak*, Dariusz J. Gawryluk, Marek Berkowski, Piotr Dluzewski, Jaroslaw Pietosa, Aleksander Wittlin and Andrzej Wisniewski, *Institute of Physics, Polish Academy of Sciences, Aleja Lotnikow 32/46, PL-02-668 Warsaw, Poland*

QB31 **The influence of superconductivity with magnetism in superconductor/magnetic heterostructures**
Jeehoon Kim*, R. Baumbach, N. Haberkorn, J. Lee, L. Civale, Q. Jia, A. J. Taylor, E. Bauer, J. D. Thompson and R. Movshovich, *Los Alamos National Laboratory, USA*

QC: Heavy fermions II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: N. Metoki (JAEAM, Japan)

QC01 **The influence of the magnetic moment on the atomic distance in amorphous $CexRu_{100-x}$**
Yingjie Li[1], Nakai Ikuo[2]*, Amakai Yusuke[3] and Shigeyuki Murayama[3], *[1]1Inner Mongolia Key Laboratory for Physics and Chemistry of Functional Materials, Physics and Electronic Information College, Inner Mongolia Normal University, Hohhot 010022, China; [2]Department of Electrical and Electronic Engineering, Graduate School of Engineering, Tottori University,Tottori 680-8552, Japan; [3]Department of Materials Science and Engineering, Muroran Institute of Technology, Hokkaido 050-8585, Japan*

QC02 **Theoretical studies of the superconductivity and antiferromagnetism coexistence and the divergence of effective electron mass near quantum critical point in $CeRhIn_5$**
Valery V. Val'kov and Anton O. Zlotnikov, *Laboratory of Theoretical Physics, L.V. Kirensky Institute of Physics, Russia*

QC03 **Josephson effect between UPt_3 and Nb under pressure**
Akihiko Sumiyama[1]*, Jun Gouchi[1], Gaku Motoyama[1], Akira Yamaguchi[1], Noriaki Kimura[2], Etsuji Yamamoto[3], Yoshinori Haga[3] and Yoshichika Onuki[4], *[1]Univ. of Hyogo, Japan; [2]Tohoku Univ., Japan; [3]JAEA, Japan; [4]Osaka Univ., Japan*

QC04 **Hidden order in URu_2Si_2 --- Analysis based on the first-principles approach**
Hiroaki Ikeda[1]*, Michi-to Suzuki[2], Ryotaro Arita[3], Tetsuya Takimoto[4], Takasada Shibauchi1 and Yuji Matsuda[1]
[1]Department of Physics, Kyoto university, Japan; [2]CCSE, Japan Atomic Energy Agency, Japan; [3]Department of Appliced Physics, University of Tokyo, Japan; [4]Asia Pacific Center for Theoretical Physics, POSTECH, Korea

QC05 **Sb NQR study of filled skutterudite $CeFe_4Sb_{12}$ synthesized under high pressure**
Ko-ichi Magishi[1]*, Hitoshi Sugawara[2], Masahiro Takahashi[1], Takahito Saito[1], Kuniyuki Koyama[1], Takashi Saito[3], Sho Tatsuoka[3], Kenya Tanaka[3] and Hideyuki Sato[3], *[1]Institute for Socio-Arts and Sciences, The University of Tokushima, Japan; [2]Graduate School of Science, Kobe University, Japan; [3]Graduate School of Science, Tokyo Metropolitan University, Japan*

QC06 **High-mobility magnetotransport of the narrow-gap semiconductor $FeSb_2$**
Hidefumi Takahashi*, Ryuji Okazaki, Yukio Yasui and Ichiro Terasaki, *Department of Physics, Nagoya University, Japan*

QC07 **A possible ferromagnetic quantum critical point in $CeFe_{1-x}$ Ru_xPO**
Tetsuro Nakmura[1], Takashi Yamamoto[2], Masanori Matoba[1], Yasuaki Einaga[2] and Yoichi Kamihara[1], *[1]Department of Applied Physics and Physico-Informatics, Keio University., Japan; [2]Department of Chemistry, Keio University., Japan*

QC08 **Ru doping evolution of magnetic properties in $Ce(Fe_{1-x}Ru_x)PO$ studied by 31P-NMR**
Shunsaku Kitagawa[1]*, Yusuke Nakai[2], Kenji Ishida[1], Hiroaki Ikeda[3], Kensuke Iritani[4], Masanori Matoba[4], Youichi Kamihara[4], Masahiro Hirano[5] and Hideo Hosono[6], *[1]Department of Physics, Kyoto University JST-TRIP, Japan; [2]Department of Physics, Kyoto University JST-TRIP *present address Graduate School of Science, Tokyo Metropolitan Univers, Japan; [3]Department of Physics, Kyoto University, Japan; [4]Departments of Applied Physics and Physico-Informatics, Keio University, Japan; [5]Frontier Research Center, Tokyo Institute of Technology, Japan; [6]Frontier Research Center, Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*

QC09 (Withdrawn) **Determining the orientation of the 4f ground state orbital in $CeCu_2Si_2$ with vector q dependent non-resonant inelastic X-ray scattering (NRIXS).**
Thomas Willers[1]*, Fabio Strigari[1], Yong Cai[2], Nozomu Hiraoka[3], Ku-ding Tsuei[3], Yen-fa Liao[3], Maurits Wim Haverkort[4], Silvia Seiro[5], Christoph Geibel[5], Frank Steglich[5], Liu Hao Tjeng[5] and Andrea Severing[1], *[1]Institute of Physics II, University of Cologne, Germany; [2]Brookhaven National Laboratory, USA; [3]National Synchrotron Radiation Research Center, Hsinchu, Taiwan; [4]Max Planck Institute for Solid State Research, Stuttgart, Germany; [5]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*

QC10 **Possible superconducting fluctuation in pressure-induced heavy-fermion superconductor $CeRhSi_3$**
Noriaki Kimura*, Tetsuya Sugawara, Hiroki Iida and Haruyoshi Aoki, *Department of Physics, Tohoku University, Japan*

QC11 **Thermoelectric power in a single-crystalline $CeRhSi_3$**
Hidekazu Tanaka[1]*, Naofumi Aso[2], Yoshinao Takaesu[1], Masato Hedo[2], Takao Nakama[2], Hiroki Iida[3], Noriaki Kimura[3] and Haruyoshi Aoki[3], *[1]Graduate School of Engineering and Science, University of the Ryukyus, Japan; [2]Faculty of Science, University of the Ryukyus, Japan; [3]Graduate School of Science, Tohoku University, Japan*

QC12 (Withdrawn) **Valence of CeM_2Al_{10} (M=Ru, Os, and Fe) determined with hard X-ray photo emission spectroscopy (HAXPES).**
Fabio Strigari[1], Thomas Willers[1], Ku Ding Tsuei[2], Yen Fa Liao[2], Arata Tanaka[3], K. Yutani[3], Y. Muro[3], Toshiro Takabatake[3], Liu Hao Tjeng[4] and Andrea Severing[1]*, *[1]University of Cologne, Germany; [2]National Synchrotron Radiation Research Center, Taiwan; [3]ADSM, Hiroshima University, Japan; [4]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*

QC13 **Studies on novel tetragonal Ce_2RhGa_{12} heavy fermion compound**
Ramamoorthi Nagalakshmi[1]*, Sengodan Nallamuthu[1], Varadharajan Krishnakumar[2], Celine Besnard[3], Hans Hagemann[4] and Marian Reiffers[5], *[1]Physics, National Institute of Technology, Tiruchirappalli, India; [2]Physics, Periyar University, Salem, India; [3]Laboratory of Crystallography, Laboratory of Crystallography, University of Geneva, 24 Quai Ernest-Ansermet, CH-1211 Geneva 4, Swit, Switzerland; [4]Physical Chemistry, University of Geneva, Geneva, Switzerland, Switzerland; [5]Physics, Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia, Slovak*

QC14 **Electronic structures of plutonium compounds with the NaCl-type monochalcogenides structure**
Takahiro Maehira[1]*, Yasutomi Tatetsu[2] and Eijiro Sakai[1], *[1]Faculty of Science, University of the Ryukyus, Nishihara, Okinawa 903-0213, Japan; [2]Graduate school of Engineering and Science, University of the Ryukyus , Nishihara, Okinawa 903-0213, Japan*

QC15 **Electronic property of $ThSn_3$ in comparison with uranium and transuranium compounds**
Yasutomi Tatetsu[1]*, Takahiro Maehira[2] and Eijiro Sakai[2], *[1]Graduate school of Engineering and Science, University of the Ryukyus, Japan; [2]Faculty of Science, University of the Ryukyus, Japan*

QC16 **Multipolar phase transition of the 4f2 nonmagnetic doublet in a caged compound $PrRh_2Zn_{20}$**
Nagasawa Naohiro[1], Matsumoto T Keisuke[1], Wakiya Kazuhei[1], Onimaru Takahiro[1], Umeo Kazunori[1], Kittaka Shunichiro[2], Sakakibara Toshiro[2] and Takabatake Toshiro[1], *[1]Hiroshima University, Japan; [2]The University of Tokyo, Japan*

QC17 **Crystal growth and low temperature properties of non-centrosymetric heavy-fermion comound $CeTAl_3$ (T = Cu, Ag, Au)**
Christian Franz, Alexander Regnat, Andreas Bauer and Christian Pleiderer, *Department fur Physik, Technische Universitat Munchen, Germany*

QC18 **Enhancement of the hall coefficient under pressure in $CeCu_2Si_2$**
Shingo Araki[1]*, Naoto Nishiumi[1], Minami Hayashida[1], Takafumi Shinohara[1], Yoichi Ikeda[1], Tatsuo C. Kobayashi[1], Silvia Seiro[2], Christoph Geibel[2] and Frank Steglich[2], *[1]Department of Physics, Okayama University, Japan; [2]Max Planck Institute for Chemical Physics of Solids, Germany*

QC19 **Saturation moment in the ferromagnetic state of EuB_6**
Vladimir V. Glushkov[1]*, Alexey V. Bogach[1], Alexey V. Semeno[1], Sergey V. Demishev[1], Vsevolod Yu. Ivanov[1], Nickolay E. Sluchanko[1], Alexey V. Kuznetsov[2], Sergey Yu. Gavrilkin[3], Kirill V. Mitsen[3], Natalja Yu. Shitsevalova[4], Vladimir B. Filipov[4], Johan Vanacken[5] and Victor Moshchalkov[5], *[1]Low Temperatures and Cryogenic Engineering Dept., A.M.Prokhorov General Physics Institute of RAS, Russia; [2]National Research Nuclear University MEPhI, Russia; [3]P.N.Lebedev Physical Institute of RAS, Russia; [4]I. Frantsevich Institute for Problems of Materials Science NASU, Ukraine; [5]Institute for Nanoscale Physics and Chemistry, Katholieke Universiteit Leuven, Belgium*

QC20 **Magnetization of $Tm_{1-x}Yb_xB_{12}$ in strong pulsed and steady magnetic fields**
Alexey Bogach[1]*, Nickolay Sluchanko[1], Vladimir Glushkov[1], Sergey Demishev[1], Andrey Azarevich[1], Vladimir Filipov[2], Natalia Shitsevalova[2], Slavomir Gabani[3], Karol Flachbart[3], Johan Vanacken[4] and Victor Moshchalkov[4], *[1]Low temperature and cryogenic engineering, A.M.Prokhorov General Physics Institute RAS, Russia; [2]Institute for Problems of Materials Science NASU, Ukraine; [3]Institute of Experimental Physics, Slovak Academy of Sciences, Slovak; [4]Institute for Nanoscale Physics and Chemistry of KUL, Belgium*

QC21 **Stabilization of ferromagnetism and existence of ferromagnetic quantum criticality in $UCo_{1-x}Ru_xGe$ system**
Michal Valiska*, Jiri Pospisil, Martin Divis, Jan Prokleska and Vladimir Sechovsky, *DCMP, Charles University, Ke Karlovu 5, 121 16, Prague, Czech Republic*

QC22 **Thermal properties of RB_6 (R-La, Ce, Pr, Nd)**
M. A. Anisimov[1]*, A. V. Bogach[1], V. V. Glushkov[1], S. V. Demishev[1], N. A. Samarin[1], S. Gavrilkin2, N. Yu. Shitsevalova3, A. V. Levchenko3, V. B. Filipov3, S. Gabani4, K. Flachbart4 and N. E. Sluchanko1, *[1]Low Temperatures and Cryogenic Engineering Dept., A.M.Prokhorov General Physics Institute of RAS, Russia; [2]P.N.Lebedev Physical Institute of RAS, Russia; [3]Institute for Problems of Materials Science NAS, Ukraine; [4]Institute of Experimental Physics of SAS, Slovak*

QC23 **Magnetic penetration depth and skin depth study of superconductivity and quantum criticality in $Ce_{1-x}R_xCoIn_5$ (R=La and Nd)**
H. Kim[1], M. A. Tanatar[1], K. Cho[1], J. Murphy[1], R. Hu[2], C. Petrovic[2] and R. Prozorov[1]*, *[1]The Ames Laboratory, USA; [2]Brookhaven National Laboratory, USA*

QC24 **Low energy spin excitations in single-crystalline $CeCu_2Ge_2$ in magnetic fields up to 10T**
Astrid Schneidewind[1]*, Michael Loewenhaupt[2], Oliver Stockert[3] and Enrico Faulhaber[1], *[1]Helmholtz-Zentrum Berlin fur Materialien und Energie, Germany; [2]IFP, TU Dresden, Germany; [3]MPI-CPfS Dresden, Germany*

QC25 **Magnetization measurements under high pressure on incommensurate-commensurate phase transitions on UPd_2Si_2**
Hiroyuki Hidaka, Hideki Igarashi, Yusei Shimizu, Chihiro Tabata, Tatsuya Yanagisawa and Hiroshi Amitsuka, *Graduate School of Science, Hokkaido University, Japan*

QD: Valence fluctuations

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Yong Seung Kwon (DGIST, Korea)

QD01 **Fe doping and magnetic field effect in the valence fluctuating heavy fermion system α-$YbAlB_4$**
Kentaro Kuga, Keita Sone, Yosuke Matsumoto, Eoin Conor O'farrell and Satoru Nakatsuji, *Institute for Solid State Physics, Japan*

QD02 **Magnetic and electric properties of single crystal $SmBaMn_2O_6$**
Youichi Maeda[1]*, Shigeki Yamada[1] and Takahisa Arima[2], *[1]Yokohama city univercity, Japan; [2]Univercity of Tokyo, Japan*

QD03 **Phase diagram and Eu valence state in $EuPtP_{1-x}As_x$**
Masaki Sugishima[1], Akihiro Mitsuda[1], Hirofumi Wada[1]*, Masahiko[2] Isobe and Yutaka Ueda[2], *[1]Department of Physics, Kyushu University, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan*

QD04 **Investigation of crystal structure, magnetism and transport properties of $SrFe_{1-x}Ti_xO_{3-\delta}$ systems**
Sendilkumar A[1], Babu P. D.[2], Manivelraja M[3], R.reddy V.[4] and Srinath S[1]*, *[1]School of Physics, University of Hyderabad, India; [2]UGC-DAE Consortium for Scientific Research, R-5 Shed, B.A.R.C,Mumbai, 400 085, India; [3]School of Physics, Advanced Magnetics Group ,DMRL,Hyderabad, 500 046 ,A.P, India; [4]4UGC-DAEF ,Khandwa Road, Indore, 425017, M.P, India*

QD05 **Evolution from a localized to an intermediate valence regime in $Ce_2Cu_{2-x}Ni_xIn$**
Adam Pikul* and Dariusz Kaczorowski, *Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland*

QD06 **Substitution effect in $CeFe_2Al_{10}$**
Takashi Nishioka[1], Yuta Oogane[1], Daishi Hirai[1], Harukazu Kato[1], Masahiro Matsumura[1], Yukihiro Kawamura[2] and Chihiro Sekine[2], *[1]Physics, Kochi University, Japan; [2]Physics, Muroran Institute of Technology, Japan*

QD07 **Fermi surface and electronic correlations in a valence fluctuating Eu-system: an experimental and theoretical study of $EuIr_2Si_2$**
Silvia Seiro[1], Oleg Ignatchik[2], Violeta Guritanu[1], Vivien Petzold[1], Takuya Iizuka[3], Kathrin Gotze[2], Jorg Sichelschmidt[1], Shin-ichi Kimura[3], Horst Borrmann[1], Jochen Wosnitza[2], Helge Rosner[1] and Christoph Geibel[1]*, *[1]Max Planck Institute for Chemical Physics of Solids, Germany; [2]High Magnetic Field Laboratory Dresden, Helmholtz Center Dresden-Rossendorf, Germany; [3]Institute for Molecular Science, UVSOR Facility, Okazaki 444-8585, Japan*

QD08 **Heat capacity and electrical resistivity of $CeNi_{5-x}Ge_x$**
Mariana Zapotokova[1], Ivan Curlik[2], Marian Reiffers[3] and Mauro Giovannini[4], *[1]Institute of Experimental Physics, Watsonova 47, SK 043 53 Kosice, Slovakia; [2]Centre od Low Temperature Physics, Institute of Experimental Physics, Watsonova 47, SK 043 53 Kosice, Slovakia; [3]Centre od Low Temperature Physics, Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia; [4]CNR-SPIN and Department of Chemistry, CNR-SPIN and Department of Chemistry, University of Genova I-16146 Genova, Italy*

QD09 **Antiferromagnetic order in $Yb_5Rh_4Ge_{10}$**
Kazunori Umeo[1]*, Kenichi Katoh[2] and Toshiro Takabatake[3], *[1]N-BARD, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima 739-8526, Japan; [2]Department of Applied Physics, National Defense Academy, Yokosuka 239-8686, Japan; [3]AdSM and IAMR, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima 739-8530, Japan*

QD10 **Magnetic field dependence of the resistivity minimum of nanosized $YbAl_3$**
C. Echevarria-Bonet[1]*, D. P. Rojas[2], L. Fernandez Barquin[1], J. C. Gomez Sal[1], S. N. Kaul[3], B. Coqblin[4], S. G. Magalhaes[5] and E. Bauer[6], *[1]CITIMAC, Universidad de Cantabria, Spain; [2]Departamento de Fisica, Universidad Carlos III de Madrid, Spain; [3]School of Physics and Centre for Nanotechnology, University of Hyderabad, India; [4]Laboratoire de Physique des Solides, CNRS-Universite Paris-Sud, France; [5]Instituto de Fisica, Universidade Federal Fluminense, Brazil; [6]Institute of Solid State Physics, TU Wien, Austria*

QD11 **Electronic states of Eu_4As_3 under high pressure**
Hisao Kobayashi[1]*, Yoshitaka Yoda[2] and Akira Ochai[3], *[1]Graduate School of Material Science, University of Hyogo, Japan; [2]Japan Synchrotron Radiation Institute, Japan; [3]Department of Physics, Tohoku University, Japan*

QD12 **Pressure effect on intermediate valence semiconductor SmB_6 : 11B-NMR**
Kouhei Nishiyama[1], Gabriel Pristas[2], Takeshi Mito[1], Takao Kohara[1], Slavomir Gabani[2], Marian Reiffers[2], Yasuhiro Komaki[3], Mitutane Kokubu[3], Hideto Fukazawa[3], Yoh Kohori[3], Nao Takeshita[4] and Natalia Shitsevalova[5], *[1]Graduate school of Material Science, University of Hyogo, Japan; [2]Institute of Experimental Physics, Slovak Academy of science, Slovak; [3]Graduate School of Science, Chiba University, Japan; [4]Nanoelectronics Research Institute, National Institute of Advanced Industrial Science and Technology, Japan; [5]Institute for Problems of Material Science, National Academy of science of Ukraine, Ukraine*

QD13 **Magnetic properties of ytterbium fluoride sulfide $Yb_3F_4S_2$**
Masashi Kosaka[1], Takuya Kobiyama[1], Hiroko Aruga Katori[2] and Naoki Shirakawa[3], *[1]Graduate School of Science and Engineering, Saitama University, Japan; [2]Division of Advanced Frontier Applied Physics, Tokyo University of Agriculture and Technology, Japan; [3]Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology, Japan*

QD14 **Physical properties of the layered oxypnictides (CeO)MnPn; Pn=As, Sb**
Morosawa Yasuhiro[1], Takase Koichi[1]*, Onizawa Manami[1], Moriyoshi Chikako[2], Kuroiwa Yoshihiro[1], Watanabe Tadataka[1] and Takano Yoshiki[1], *[1]Nihon University, Japan; [2]Hiroshima University, Japan*

QD15 **31P-NMR study of valence fluctuating compound EuPtP**
Takeshi Mito[1], Koji Nishitani[1], Takehide Koyama[1], Koichi Ueda[1], Takao Kohara[1], Akihiro Mitsuda[2], Masaki Sugishima[2] and Hirofumi Wada[2], *[1]University of Hyogo, Japan; [2]Kyushu University, Japan*

QD16 **Magnetic behavior of polycrystalline Eu_5Si_3 compound**
Sujata M. Patil[1]*, P. L. Paulose[2] and E. V. Sampathkumaran[2], *[1]Wilson College, Mumbai 400007, India; [2]Tata Institute of Fundamental Research, Colaba, Mumbai 400005, India*

QD17 **Valence fluctuation study by using X-ray absorption and emission spectroscopies at Yb L3-edge in $YbNi_3X_9$ (X=Al and Ga)**
Naomi Kawamura[1], Masaichiro Mizumaki[1], Hisashi Hayashi[2], Noriko Kanai[2], Kazuyuki Matsubayashi[3], Yoshiya Uwatoko[3], Tetsuro Yamashita[4] and Shigeo Ohara[4], *[1]Japan Synchrotron Radiation Research Institute (JASRI/SPring-8), Japan; [2]Department of Chemical and Biological Science, Japan Women's University, Japan; [3]Institute for Solid State Physics, University of Tokyo, Japan; [4]Department of Engineering Physics, Nagoya Institute of Technology, Japan*

QD18 **Angle-resolved photoemission spectroscopy of mixed-valence $Sm_{1-x}Y_xS$**
Keiichiro Imura[1]*, Tetsuya Hajiri[2], Masaki Kaneko[2], Yusuke Nishi[2], Hiroyuki S. Suzuki[3], Noriaki K. Sato[2], Takahiro Ito[2], Masaharu Matsunami[1] and Shin-ichi Kimura[1], *[1]UVSOR Facility, Institute for Molecular Science, Japan; [2]Nagoya University, Japan; [3]National Institute for Materials Science, Japan*

QE: Frustrated systems, Kagome, Triangular systems

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: A. Miyata (University of Tokyo, Japan)

QE01 **Critical behavior of a spin-1 triangular lattice Ising antiferromagnet**
Milan Zukovic* and Andrej Bobak, *Department of Theoretical Physics and Astrophysics, Faculty of Science, P. J. Safarik University, Slovakia*

QE02 **Selectively diluted triangular lattice ising antiferromagnet in an external magnetic field**
Andrej Bobak*, Michal Borovsky and Milan Zukovic, *Department of Theoretical Physics and Astrophysics, Faculty of Science, P.J. Safarik University, Slovakia*

QE03 **Possible magnetic transition observed in S=1/2 kagome antiferromagnet volborthite by high field ESR**
Hitoshi Ohta[1]*, Wei-min Zhang[1], Susumu Okubo[1], Takahiro Sakurai[2], Yoshihiko Okamoto[3], Hiroyuki Yoshida[4] and Zenji Hiroi[3], *[1]Molecular Photoscience Research Center, Kobe University, Japan; [2]Center for Supports to Research and Education Activities, Kobe University, Japan; [3]Institute for Solid State Physics, University of Tokyo, Japan; [4]National Institute for Materials Science (NIMS), Japan*

QE04 **Field-induced staggered moment stabilization in frustrated quantum magnets**
Burkhard Schmidt*, Mohammad Siahatgar and Peter Thalmeier, *Max-Planck-Institut fur Chemische Physik fester Stoffe, Germany*

QE05 **Structural and magnetic properties of single crystals of volborthite comprising a distorted spin-1/2 kagome lattice**
Hajime Ishikawa[1]*, Yoshihiko Okamoto[1], Junichi Yamaura[1], Hiroyuki Yoshida[2], Gøran J. Nilsen[1] and Zenji Hiroi[1], *[1]ISSP, the University of Tokyo, Japan; [2]NIMS, Japan*

QE06 (Withdrawn) **High-field study of multiferroic $Ni_3V_2O_8$**
Junfeng Wang[1], Masashi Tokunaga[2], Zhangzhen He[3] and Koichi Kindo[2], *[1]Wuhan National High Magnetic Field Center, China; [2]The Institute for Solid State Physics (ISSP), The University of Tokyo, Japan; [3]Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, China*

QE07 **Gapless spin excitation of the triangular-lattice antiferromagnet**
Hiroki Nakano[1]* and Toru Sakai[2], *[1]University of Hyogo, Japan; [2]JAEA, SPring8, Japan*

QE08 **Magnetic properties of the spin-1/2 kagome antiferromagnets: vesignieite $BaCu_3V_2O_8(OH)_2$ and $CdCu_3(OH)_6Br_2$**
Yoshihiko Okamoto[1]*, Makoto Yoshida[1], Hajime Ishikawa[1], Gøran J. Nilsen[1], Hiroyuki Yoshida[2], Masashi Takigawa[1] and Zenji Hiroi[1], *[1]Institute for Solid State Physics, Univ. of Tokyo, Japan; [2]National Institute for Materials Science, Japan*

QE09 **Spin dynamics of triangular spin tubes**
Hirotaka Manaka[1]* and Yoko Miura[2], *[1]Graduate School of Science and Engineering, Kagoshima University, Japan; [2]Suzuka National College of Technology, Japan*

QE10 **Origin of field induced magnetic ordering in frustrated honeycomb lattice antiferromagnet**
Susumu Okubo[1]*, Tomonari Ueda[2], Wei-min Zhang[3], Takahiro Sakurai[4], Masashi Fujisawa[1], Hitoshi Ohta[1], Nozomi Ohnishi[5], Masaki Azuma[6], Yuichi Shimakawa[5] and Nobuhiro Kumada[7], *[1]Molecular Photoscience Research Center, Kobe University, Japan; [2]Graduate School of Science, Kobe University, Japan; [3]Center for Collaborative Research and Technology Development, Kobe University, Japan; [4]Center for Supports to Research and Education Activities, Kobe University, Japan; [5]Institute for Chemical Research, Kyoto University, Japan; [6]Materials and Structures Laboratory, Tokyo Institute of Technology, Japan; [7]Graduate School of Medicine and Engineering, University of Yamanashi, Japan*

QE11 **Semi-classical spin-liquid state as a low-energy excited state in frustrated quantum spin systems on triangle-based lattice system**
Makoto Isoda[1], Hiroki Nakano[2] and Toru Sakai[3], *[1]Kagawa University, Japan; [2]University of Hyogo, Japan; [3]JAEA Spring-8, Japan*

QE12 **High pressure and low-temperature 31P NMR study of the two-dimensional frustrated square lattice compound $BaCdVO(PO_4)_2$**
Yuji Furukawa[1], Beas Roy[1], Ramesh Nath[2], David C Johnston[1], Yasuhiro Komaki[3], Hideto Fukazawa[3] and Yoh Kohori[3], *[1]Department of Physics and Astronomy, Iowa State University / Ames Laboratory, USA; [2]Indian Institute of Science Education and Research, India; [3]Department of Physics, Chiba University, Japan*

QE13 **Kasteleyn transitions in the spin ice $Dy_2Ti_2O_7$**
Hiroaki Kadowaki[1]*, Naohiro Doi[1], Hiroshi Takatsu[1], Ryuji Higasginaka[1], Yuji Muro[2], Kiyoichiro Motoya[3], Rei Morinaga[4], Taku J Sato[4], Takashi Tayama[5], Toshiro Sakakibara[4], Kazuyuki Matsuhira[6] and Zenji Hiroi[4], *[1]Department of Physics, Tokyo Metropolitan University, Japan; [2]Toyama Prefectural University, Japan; [3]Department of Physics, Tokyo University of Science, Japan; [4]Institute for Solid State Physics, University of Tokyo, Japan; [5]Department of Physics, University of Toyama, Japan; [6]Department of Electronics, Kyushu Institute of Technology, Japan*

QE14 **Novel frustrated quantum antiferromagnets in the solid-solution $Cs_2CuCl_{4-x}Br_x$ through site-selective halide substitution**
Bernd Wolf*, Pham Thanh Cong, Natalia Kruger, Franz Ritter, Wolf Assmus and Michael Lang, *Physics Institute, Goethe-University Frankfurt (M), SFB/TR 49, D-60438 Frankfurt (M), Germany*

QE15 **Strong geometrical frustration in Fe oxychalcogenide**
Sungdae Ji[1], K. Horigane[2] and K. Yamada[3], *[1]CROSS, Japan; [2]University of Virginia, USA; [3]Tohoku University, Japan*

QE16 **Magnetic properties of the frustrated magnet $Cu_5(PO_4)_3(OH)_4$ on a peculiar spin network composed of pentagons and triangles**
Hikomitsu Kikuchi[1], Nguyen Thi Tinh Y[1], Yutaka Fujii[2], Masashi Fujisawa[3], Akira Matsuo[4] and Koichi Kindo[4]
[1]Department of Applied Physics, University of Fukui, Japan; [2]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [3]Research Center for Low Temperature Physics, Tokyo Tech, Japan; [4]ISSP, The University of Tokyo, Japan

QE17 **Single crystal growth and magnetic properties of novel kagome compound $KMn_3Ge_2O_9$**
Shigeo Hara* and Hirohiko Sato, *Department of Physics, Chuo-univ, Japan*

QE18 **Specific heat study of geometrically frustrated magnet botallackite $Cu_2(OH)_3Cl$**
Hiroki Morodomi[1], Yuji Inagaki[1], Tatsuya Kawae[1], Masato Hagihala[2] and X.g. Zhen[2], *[1]Department of Applied Quantum Physics, Kyushu University, Japan; [2]Department of Physics, Saga University, Japan*

QE19 **Order and excitations in the frustrated quantum spin ladder $BiCu_2PO_6$**
P. Merchant[1], S. Wang[2], O. Zaharko[3], Ch. Niedermayer[3], L. P. Regnault[4], M. Boehm[4], M. Kenzelmann[2] and Ch. Ruegg[3], *[1]London Centre for Nanotechnology, University College London, United Kingdom; [2]Laboratory for Developments and Methods, Paul Scherrer Institute, Switzerland; [3]Laboratory for Neutron Scattering, Paul Scherrer Institute, Switzerland; [4]Institut Laue-Langevin, France*

QE20 **Melting of the spin ice state in $Dy_2(Ti_{1-x}Zr_x)_2O_7$ without dilution of rare-earth ion**
Yuta Kodama, Kousuke Tsuruta, Daisuke Akahoshi and Toshiaki Saito*, *Department of Physics, Faculty of Science, Toho University, Funabashi City, Chiba 274-8510, Japan*

QE21 **Unusual magnetic ordering of kagome lattice magnet $[Cu_3(CO_3)_2(bpe)_3]\bullet_2ClO_4$**
Hikomitsu Kikuchi[1], Hayato Nakata[1], Yutaka Fujii[2] and Toshifumi Taniguchi[3], *[1]Department of Applied Physics, University of Fukui, Japan; [2]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [3]Graduate School of Science, Osaka University, Japan*

QE22 **Field-induced staggered moments in the spin-gapped antiferromagnet on a deformed kagome lattice, $Rb_2Cu_3SnF_{12}$**
Hiroshi Tashiro[1]*, Masahide Nishiyama[1], Akira Oyamada[1], Tetsuaki Itou[1], Satoru Maegawa[1], Midori Yano[2], Toshio Ono[3] and Hidekazu Tanaka[2], *[1]Graduate School of Human and Environmental Studies, Kyoto University, Japan; [2]Department of Physics, Tokyo Institute of Technology, Japan; [3]Department of Physical Science, Osaka Prefecture University, Japan*

QE23 **Magnetic order in finite size domains of the honeycomb lattice compound $InCu_{2/3}V_{1/3}O_3$**
E. Vavilova[1]*, M. Yakovleva[1], M. Yehia[2], R. Klingeler[3], V. Kataev[2], T. Taetz[4], U. Loew[5], A. Moeller[6] and B. Buechner[2]
[1]Zavoisky Physical Technical Institute, RAS, Kazan, Russia; [2]IFW Dresden, Dresden, Germany; [3]Heidelberg University, Heidelberg, Germany; [4]Institut fur Anorganische Chemie, Universitaat zu Koln, Germany; [5]Technische Universitaat Dortmund, Germany; [6]University of Houston, Department of Chemistry and Texas Center for Superconductivity, USA

QE24 **Z_2 vortices in frustrated background of cuprates**
Maciej Fidrysiak and Paweł Rusek*, *Wroclaw University of Technology, Poland*

QE25 **First-principles study of S=1/2 Kagome antiferromagnet**
Chung-yuan Ren*, *National Kaohsiung Normal University, Taiwan*

QE26 **Exotic phases in the frustrated hexagonal lattice**
Daniel C. Cabra*, *Physics Department, National University of La Plata, Argentina*

QE27 **Light scattering in spin liquid systems**
Dirk Wulferding[1]*, Peter Lemmens[1], Vladimir Gnezdilov[2], Tianheng Han[3], Young S. Lee[3], Hiroyuki Yoshida[4], Yoshihiko Okamoto[5] and Olga Volkova[6], *[1]IPKM, TU-BS, Braunschweig, Germany; [2]ILTPE NAS, Ukraine; [3]MIT, Massachusetts, USA; [4]NIMS, Tsukuba, Japan; [5]ISSP, Tokyo, Japan; [6]MSU, Moscow, Russia*

QF: 1D, low-dimensional systems

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: C. Hotta (Kyoto Sangyo University, Japan)

QF01 **Molecular nanomagnets as quantum simulators**
Paolo Santini, *University of Parma. Italy*

QF02 **ESR signature of the next-nearest-neighbor interactions in the S = 1/2 chain compound $(6MAP)CuCl_3$.**
M. Ozerov[1], A. A. Zvyagin[2], E. Cizmar[3], F. Xiao[4], C. P. Landee[4], J. Wosnitza[1] and S. A. Zvyagin[1], *[1]Dresden High Magnetic Field Laboratory, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; [2]Institut fur Festkorperphysik, Technische Universitat Dresden, Dresden, Germany; [3]Centre of Low Temperature Physics, P.J. Safarik University, Kosice, Slovak; [4]Department of Physics and Carlson School of Chemistry, Clark University, Worcester, Massachusetts, USA*

QF03 **Electron spin resonance in the spin-ladder compound BPCB**
S. Zvyagin[1], E. Cizmar[2], M. Ozerov[1] and J. Wosnitza[1], *[1]Dresden High Magnetic Field Laboratory (HLD) Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; [2]Centre of Low Temperature Physics, P.J. Safarik University, Kosice, Slovak*

QF04 **Non-magnetic impurity effect of S=1/2 spin ladder system $(pipdH)_2Cu_{1-x}Zn_xBr_4$**
Chiori Yokoyama[1], Weimin Zhang[2], Takahiro Sakurai[3], Susumu Okubo[4]*, Hitoshi Ohta[5], Eiichi Matsuoka[6], Hitoshi Sugawara[7] and Hikomitsu Kikuchi[8], *[1]Kobe University, Japan; [2]Center for Collaborative Research and Technology Development, Kobe University, Japan; [3]Center for Supports to Research and Education Activities, Kobe University, Japan; [4]Molecular Photoscience Research Center, Kobe University, Japan; [5]Molecular Photoscience Research, Kobe University, Japan; [6]Graduate School of Science, Kobe University, Japan; [7]Graduate School of Science, Kobe University, Japan; [8]Department of Applied Physics, University of Fukui, Japan*

QF05 (Moved to other session) **High-field multi-frequency ESR in the S=2 Heisenberg antiferromagnetic chain compound $MnCl_3(bpy)$**
Masayuki Hagiwara[1]*, Shojiro Kimura[2], Yuichi Idutsu[1] and Zentaro Honda[3], *[1]KYOKUGEN, Osaka University, Japan; [2]IMR, Tohoku University, Japan; [3]Graduate School of Science and Engineering, Saitama University, Japan*

QF06 **High field magnetization of bimetallic chain with alternating ising and Heisenberg spins**
Yibo Han[1], Jozef Strecka[2], Takanori Kida[1], Zentaro Honda[3], Masami Ikeda[1] and Masayuki Hagiwara[1]*, *[1]KYOKUGEN, Osaka University, 1-3 Machikaneyama, Toyonaka, Osaka 560-8531, Japan; [2]Department of Physics, Faculty of Science, P. J. Safarik University, Park Angelinum 9,040 01 Kosice, Slovakia; [3]Department of Functional Materials Science, Graduate School of Science and Engineering, Saitama University, 255 Shimo-Okubo, Sakura-ku, Saitama 338-8570, Japan*

QF07 **Thermal conductivity and magnetic susceptibility of the 4-leg spin-ladder system $(La_{1-x}Y_x)_2Cu_2O_5$ and the 5-leg spin-ladder system $(La_{1-x}Eu_x)_8Cu_7O_{19}$**
Takayuki Kawamata*, Takashi Noji and Yoji Koike, *Department of Applied Physics, Tohoku University, Japan*

QF08 **Magnetic susceptibility of the quasi one-dimensional spin system $Sr_2V_3O_9$**
Takayuki Kawamata*, Masanori Uesaka, Mitsuhide Sato and Yoji Koike, *Department of Applied Physics, Tohoku University, Japan*

QF09 **Magnetic property of a single crystal of spin-1/2 triple-chain magnet $Cu_3(OH)_4SO_4$**
Yutaka Fujii[1]*, Yuya Ishikawa[2], Hikomitsu Kikuchi[2], Yasuo Narumi[3], Hiroyuki Nojiri[3], Shigeo Hara[4] and Hirohiko Sato[4] *[1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]Department of Applied Physics, University of Fukui, Japan; [3]Institute for Materials Research, Tohoku University, Japan; [4]Department of Physics, Chuo University, Japan*

QF10 **Thermal conductivity due to magnons in high-quality single crystals of the two-leg spin ladder system $(Ca,Sr,La)_{14}Cu_{24}O_{41}$**
Koki Naruse[1]*, Takayuki Kawamata[1], Mitsuhide Sato[1], Masumi Ohno[1], Kazutaka Kudo[2], Norio Kobayashi[3] and Yoji Koike[1], *[1]Department of Applied Physics, Tohoku University, Japan; [2]Department of Physics, Okayama University, Japan; [3]Institute for Materials Research, Tohoku University, Japan*

QF11 **Magnetic property of Ni^{2+} antiferromagnetic perfect triangle cluster**
Emika Takata[1,2]*, Minoru Sanda[1], Katsutaka Kubo[2], Takayuki Asano[2], Akira Matsuo[1], Koichi Kindo[1] and Masaki Oshikawa[1], *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]Department of Physics, Kyushu University, Japan*

QF12 **Thermal conductivity of anisotropic spin ladder**
Hamed Rezania*, *Razi University, Iran*

QF13 **The magnetic properties of the newly synthesized trinuclear copper complex**
A. N. Ponomaryov[1]*, K. Y. Choi[1], N. Kim[2], S. Yoon[2], B. J. Suh[3] and Z. H. Jang[4], *[1]Department of Physics, Chung-Ang University, Seoul, Korea; [2]Department of Chemistry, Kookmin University, Seoul, Korea; [3]Department of Physics, The Catholic University of Korea, Bucheon, Korea; [4]Department of Physics, Kookmin University, Seoul, Korea*

QF14 **Magnetization process of S=1/2 diamond chain compound $Na_2Cu_3Ge_4O_{12}$**
Minoru Sanda[1]*, Keisuke Matsuura[1], Takayuki Asano[1], Junfeng Wang[2], Akira Matsuo[2], Koichi Kindo[2], Hiroki Morodomi[3], Yuji Inagaki[3] and Tatsuya Kawae[3], *[1]Department of Physics, Kyushu University, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan; [3]Department of Applied Physics, Kyushu University, Japan*

QF15 **Quantum criticality in a frustrated ising chain columbite**
Kazuhiro Igarashi, Yasuhiro Shimizu* and Masayuki Itoh, *Nagoya University, Japan*

QF16 **Ligand-driven geometric and electronic structures of FeII spin-crossover molecules**
Van Thanh Nguyen and Anh Tuan Nguyen*, *Faculty of Physics, Hanoi University of Science, Viet Nam*

QF17 **Magnetic properties of S=1/2 zigzag antiferromagetic chain compounds, $VO(XO_4)(2,2'\text{-bpy})$ (X=S, Mo; bpy = bipyradine)**
Akira Matsuo[1]*, Yuya Ishikawa[2], Yutaka Fujii[3], Hikomistu Kikuchi[2] and Koichi Kindo[1], *[1]The Institute for Solid State Physics, The University of Tokyo, Japan; [2]Department of Applied Physics, University of Fukui, Japan; [3]Research Center for Development of Far-Infrared Region, University of Fukui, Japan*

QF18 **Inter-chain coupling and anisotropy in the frustrated chain cuprate Li_2CuO_2**
W. E. A. Lorenz[1]*, S.-l. Drechsler[2], R. O. Kuzian[3], S. Petit[4], Y. Skourki[5], R. Klingeler[6] and B. Buchner[2], *[1]Neutron Scattering and Magnetism Group, Laboratory for Solid State Physics, ETH Zurich, Switzerland; [2]Leibniz Institute for Solid State and Materials Research Dresden, Germany; [3]Institute for Problems of Materials Science, Kiev, Ukraine; [4]Laboratoire Leon Brillouin, Saclay, France; [5]Dresden High Magnetic Field Laboratory, FZ-Dresden-Rossendorf, Dresden, Germany; [6]Kirchhoff Institute for Physics, University of Heidelberg, Germany*

QF19 **Spectral signatures of magnetic Bloch oscillations in 1D ferromagnets**
Sergey Shinkevich and Olav F. Syljuasen, *Department of Physics, University of Oslo, Norway*

QF20 **Quasi-one-dimensional magnetic phase as a competing ground state in a frustrated magnet**
Krunoslav Prsa[1], Mark Laver[2], Martin Mansson[1], Ivica Zivkovic[3], Peter Derlet[4], Sebastian Guerrero[4], Christopher Mudry[4], Oksana Zaharko[2], Sang-wook Cheong[5], Hee-taek Yi[5], Jorge Gavilano[2], Joachim Kohlbrecher[2], Michel Kenzelmann[6] and Joel Mesot[2], *[1]Laboratory for Solid State Physics, ETH Zurich, Switzerland; [2]Laboratory for Neutron Scattering, Paul Scherrer Institute, Switzerland; [3]Institute of Physics, Croatia; [4]Condensed Matter Theory, Paul Scherrer Institute, Switzerland; [5]Department of Physics and Astronomy, Rutgers University, USA; [6]Laboratory for Developments and Methods, Paul Scherrer Institute, Switzerland*

QF21 **Crossover of magnetic relaxation from 2D-spin ice like state to ordered state in layered single molecular magnet networks**
Yuta Kodama[1], Rikako Ishii[2], Chihiro Kachi-terajima[2], Hitoshi Miyasaka[3], Daisuke Akahoshi[1] and Toshiaki Saito[1]*, *[1]Dept. of Phys., Fac. of Sci., Toho Univ., Funabashi , Chiba 274-8510, Japan; [2]Dept. of Chem., Fac. of Sci., Toho Univ., Funabashi , Chiba 274-8510, Japan; [3]Dept.of Chem., Div. of Mat. Sci., Grad. Sch. of Nat. Sci. and Tech., Kanazawa Univ., Ishikawa 920-1192, Japan*

QF22 **Magnetic properties of the novel low-dimensional spin-1/2 magnet α-$Cu_2As_2O_7$**
V. Kataev[1]*, Y. C. Arango[1], E. Vavilova[2], M. Abdel - Hafiez[1], O. Janson[3], A. Tsirlin[3], H. Rosner[3], S.-l. Drechsler[1], M. Weil[4], G. Nenert[5], R. Klingeler[6], O. Volkova[7], A. Vasiliev[7] and B. Buechner[1], *[1]Leibniz Institute for Solid State and Materials Research IFW Dresden, Germany; [2]Zavoisky Physical Technical Institute of the Russian Academy of Sciences, 420029, Kazan, Russia; [3]Max Planck Institute for Chemical Physics of Solids, D-01187 Dresden, Germany; [4]Institute for Chemical Technologies and Analytics, Vienna University of Technology, A-1060 Vienna, Austria; [5]Institut Laue-Langevin, Boıte Postale 156, 38042 Grenoble Cedex 9, France; [6]Kirchhoff Institute for Physics, University of Heidelberg, D-69120 Heidelberg, Germany; [7]Low Temperature Physics Department, Moscow State University, Moscow 119991, Russia*

QF23 **Low temperature magnetic properties of the dilutable frustrated spin-ladder $Bi(Cu_{1-x}Zn_x)_2PO_6$**
Shuang Wang[1], Krunoslav Prsa[2], Neda Nikseresht[2], Christian Ruegg[3], E. Pomjakushina[4], Kazimierz Conder[4] and Henrik M Ronnow[2], *[1]Laboratory for Quantum Magnetism/Laboratory for Developments and Methods, Ecole Polytechnique Federale de Lausanne, 1015 Lausanne Paul Scherrer Institut, 5232 Villigen, Switzerland; [2]Laboratory for Quantum Magnetism, Ecole Polytechnique Federale de Lausanne, 1015 Lausanne, Switzerland; [3]Laboratory for Neutron Scattering, Paul Scherrer Institut,5232 Villigen, Switzerland; [4]Laboratory for Developments and Methods, Paul Scherrer Institut,5232 Villigen, Switzerland*

QF24 **51V-NMR study of the quasi-one-dimensional antiferromagnet $BaCo_2V_2O_8$**
Yukiichi Ideta[1], Yu Kawasaki[1], Yutaka Kishimoto[1], Takashi Ohno[1], Yoshitaka Michihiro[1], Zhangzhen He[2], Yutaka Ueda[3] and Mitsuru Itoh[4], *[1]Institute of Technology and Science, The University of Tokushima, Japan; [2]Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, China; [3]Institute for Solid State Physics, University of Tokyo, Japan; [4]Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*

QF25 **Magnetic properties of one-dimensional chain of O_2 confined in nanospaces of MFI-zeolite**
Akihiro Hori[1], Kanako Kuwana[2], Tatsuo C Kobayashi[2], Yasushi Wanikawa[3], Yoshiki Kubota[3], Kenichi Kato[1], Masaki Takata[1], Ryotaro Matsuda[4] and Susumu Kitagawa[1], *[1]RIKEN SPring-8 Center, Japan; [2]Okayama University, Japan; [3]Osaka Prefecture University, Japan; [4]Exploratory Research for Advanced Technology (ERATO), Japan*

QF26 (Withdrawn) **Quantum spin transport in a Heisenberg spin chain**
Nan-hong Kuo[1], Sujit Sarkar[2] and Chong Der Hu[1]*, *[1]Physics, NationalTaiwan University, Taiwan; [2]PoornaPrajna Institute of Scientific Research, India*

QG: Intermetallic compounds I

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Sarah Dunsiger (Technical University of Munich, Germany)

QG01 **Magnetic transition of plastic deformed Si-doped Ni_3Mn alloy**
Kowan-young Ko[1]*, Sung-won Ko[2] and John Graham Booth[3], *[1]Faculty of mechanical engineering, Ulsan College University, Korea, [2]Department of biological science, Sungkyunkwan University, Korea, [3]School of computing, science and engineering, Salford University, United Kingdom*

QG02 **Incommensurate-commensurate phase transition in $TbNi_5$ induced by external magnetic field**
Elena Sherstobitova[1]*, Alexander Pirogov[1], Vadim Sikolenko[2], Sawa Bogdanov[1] and Roland Schedler[3], *[1]Institute of Metal Physics of UD of RAS, Russia; [2]Joint Institute for Nuclear Research, Dubna, Russia; [3]Hahn-Meitner Institute, Berlin, Germany*

QG03 **First-principles dynamical CPA study of ferro- and antiferromagnetism of transition metals**
Yoshiro Kakehashi* and Sumal Chandra, *Department of Physics, University of the Ryukyus, Japan*

QG04 **High-coercive metastable ferromagnetic state induced in the Ising antiferromagnet $Fe_{0.5}TiS_2$**
Nikolay Baranov[1]*, Elizaveta Sherokalova[2], Alexey Volegov[2], Alexey Proshkin[3], Nadezshda Selezneva[2], Andrey Gubkin[4] and Ekaterina Proskurina[2], *[1]Micromagnetic laboratory, Institute of Metal Physics, Russia; [2]Institute of Natural Sciences, Ural Federal University, Russia; [3]Laboratory of ferromagnetic alloys, Institute of Metal Physics, Russia; [4]Laboratoty of neutron studies of matter, Institute of Metal Physics, Russia*

QG05 **Magnetic and thermoelectric properties of the solid solutions $Mn_{1-X}Ni_XS$**
Sergey Aplesnin[1], Oksana Romanova[1], Ludmila Ryabinkina[1], Olga Demidenko[2], Anatoly Galyas[2] and Kazimir Yanushkevich[2], *[1]L.V. Kirensky Institute of Physics, Russia; [2]Scientific-Practical Materials Research Centre NAS of Belarus, Belarus*

QG06 **Field induced anisotropy in NiMn and NiMnPt alloys**
Yildirhan Oner, *Department of Physics, Istanbul Technical University, Dept. of Physics, 34469, Istanbul, Turkey*

QG07 **X-ray-absorption near-edge structure and X-ray magnetic circular dichroism studies of a $Lu_2Fe_{16.5}Ru_{0.5}$ single crystal**
E. A. Tereshina[1], A. Smekhova[2], O. Isnard[3], A. V. Andreev[4] and A. Rogalev[5], *[1]Institute of Physics, Academy of Sciences, 18221 Prague, Czech Republic; [2]Faculty of Physics, Moscow State University, 119991 Moscow, Russia; [3]Universite Joseph Fourier/Institut Neel (CNRS), 38042 Grenoble Cedex, France; [4]Institute of Physics, Academy of Sciences, Czech Republic; [5]European Synchrotron Radiation Facility (ESRF), 38043 Grenoble Cedex, France*

QG08 **Study of the metamagnetic behavior of Ni-Co-Mn-Sb alloy in high magnetic fields**
Rie Y Umetsu[1]*, Xiao Xu[2], Wataru Ito[3], Takumi Kihara[4], Masashi Tokunaga[4], Kohki Takahashi[1] and Ryosuke Kainuma[2], *[1]Institute for Materials Research, Tohoku University, Japan; [2]Department of Materials Science, Graduate School of Engineering, Tohoku University, Japan; [3]Department of Materials and Environmental Engineering, Sendai National College of Technology, Japan; [4]International MegaGauss Science Laboratory, Institute for Solid State Physics, The University of Tokyo, Japan*

QG09 **Magnetic Transition and Thermal Expansion in $LaFe_{13-x-y}Co_ySi_x$**
Jianli Wang[1], Stewart James Campbell[2]*, Shane J Kennedy[3], Precious Shamba[4], Rong Zeng[4], Shixue Dou[4] and Guang Heng Wu[5], *[1]Institute for Superconducting & Electronic Materials, The university of Wollongong, Australia; [2]School of PEMS, The University of New South Wales, Canberra, Australia; [3]Bragg Institute, ANSTO, Australia; [4]Institute for Superconductivity and Electronic Materials, The University of Wollongong, Australia; [5]National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, China*

QG10 **The magnetovolume effect of $Y_2Fe_{17-x}Ga_x$**
Daiki Haruna and Tatsuo Kamimori, *Ehime University, Japan*

QG11 (Withdrawn) **Pressure effect on the electrical resistivity of $La_{1.09}(Fe_{0.845}Si_{0.155})_{13}$ compound**
Makio Kurisu[1]*, D. T. K. Anh[2] and Go Nakamoto[3], *[1]Department of Physics, Ehime University, Japan; [2]School of Materials Science, Japan Advanced Institute of Science and Technology, Japan; [3]School of Materials Science, Japan Advansed Institute of Science and Technology, Japan*

QG12 **One- and two-magnon and exciton raman scattering in antiferromagnetic CoF2: Experiment and theory**
Eric Meloche[1], Michael Cottam[1] and David Lockwood[2], *[1]Department of Physics and Astronomy, University of Western Ontario, Canada; [2]Institute for Microstructural Sciences, National Research Council, Canada*

QG13 **Thermodynamic and transport properties of $Ru_{2-x}Fe_xCrSi$ ($1.3 \leq x \leq 1.8$)**
Masakazu Ito*, Toru Hisamatsu, Tsugumi Rokkaku, Iduru Shigeta and Masahiko Hiroi, *Department of Physics and Astronomy, Graduate School of Science and Engineering, Kagoshima University, Japan*

QG14 **Magnetic structure and excitations of the one-dimensional quantum antiferromagnet $RbCoCl_3$**
Mattia Mena[1]*, Eva Hirtenlechner[2], Nora Haenni[3], Simon Ward[4], Karl Kraemer[3], Christian Ruegg[4] and Des Mcmorrow[1], *[1]London Center for Nanotechnology, UCL, United Kingdom; [2]Institut Laue-Langevin, France; [3]University of Bern, Switzerland; [4]Paul Scherrer Institut PSI, Switzerland*

QG15 **Antiferromagnetic transition in Ru_2CrSi in magnetic fields**
Masahiko Hiroi[1]*, Kaori Uchida[1], Iduru Shigeta[1], Masakazu Ito[1], Keiichi Koyama[1], Shojiro Kimura[2] and Kazuo Watanabe[2], *[1]Department of Physics and Astronomy, Kagoshima University, Japan; [2]Institute for Materials Research, Tohoku University, Japan*

QG16 **Assessment of Curie temperature by magnetization vs. temperature (M-T) scans in a granular magnetic Cu-Fe-Ni alloy**
Sung Kang[1], Atsuki Takano[2], Dong-hae Lee[2], Mahoto Takeda[2]*, Zenji Hiroi[3] and Masaki Takeguchi[4], *[1]Research Institute of Industrial Science & Technology (RIST), Korea; [2]Yokohama National University, Japan; [3]University of Tokyo, Japan; [4]National Institute for Materials Science (NIMS), Japan*

QG17 **Design strategy for strongly coupled diradicals: systematic approaches of intramolecular magnetic interactions**
Kyoung Chul Ko, Daeheum Cho and Jin Yong Lee*, *Department of Chemistry, SungKyunKwan University, Korea*

QG18 **Single crystal growth and physical properties of metalic antiferromagnet $(Mn,Fe)_3Si$**
So Nara[1], Sun Chang Che[1], Haruhiro Hiraka[2], Kenji Ohoyama[2], Yasuo Yamaguchi[2], Hiroyuki Miki[3] and Kazuyoshi Yamada[4], *[1]Dept. of Physics, Tohoku University, Japan; [2]IMR,Tohoku University, Japan; [3]IFS,Tohoku University, Japan; [4]WPI,Tohoku University, Japan*

QG19 **AC magnetic measurement of LiFeAs at pressures up to 5.2 GPa: Verification of the relation between Tc and structural parameters**
Shuhei Yamaguchi[1], Nobuhiro Yamaguchi[1], Masaki Mito[1], Hiroyuki Deguchi[1], Michael. J. Pitcher[2], Peter. J. Baker[3], Stephen. J. Blundell[3], Dinah. R. Parker[2] and Simon. J. Clarke[2], *[1]Fac. of Eng, Kyushu Inst. of Tech, Japan; [2]Dep. of Chem, Univ. of Oxford, United Kingdom; [3]Dep. of Phys, Univ. of Oxford, United Kingdom*

QG20 **Fundamental magnetism of Fe-P alloys and Fe3P compounds: a density functional study**
Won Seok Yun, Jee Yong Lee and In Gee Kim*, *Graduate Institute of Ferrous Technology, POSTECH, Korea*

QG21 **Analysis of spin-polaron formation in Hund lattices**
Yesenia Arredondo[1]*, Emmanuel Vallejo[2], Oracio Navarro[1] and Michel Avignon[3], *[1]Instituto de Investigaciones en Materiales, Universidad Nacional Autonoma de Mexico, Mexico; [2]Facultad de Ingenieria Mecanica y Electrica, Universidad Autonoma de Coahuila, Mexico; [3]Institut Neel, CNRS and Universite Joseph Fourier, France*

QG22 **Chiral magnetic orders in chiral helimagnet $Cr_{1/3}NbS_2$**
Yoshihiko Togawa[1]*, Tsukasa Koyama[2], Shigeo Mori[2], Yusuke Kousaka[3], Jun Akimitsu[3], Sadafumi Nishihara[4], Katsuya Inoue[4], Alexander Sasha Ovchinnikov[5] and Jun-ichiro Kishine[6], *[1]Nanoscience and Nanotechnology Research Center (N2RC), Osaka Prefecture University, Japan; [2]Department of Materials Science, Osaka Prefecture University, Japan; [3]Department of Physics, Aoyama Gakuin University, Japan; [4]Department of Chemistry, Hiroshima University, Japan; [5]Department of Physics, Ural Federal University, Russia; [6]Graduate School of Arts and Sciences, The Open University of Japan, Japan*

QG23 **ESR study of AFM - Ordering in the orthorhombic CuMnAs**
Yuriy Vladimirovich Goryunov[1]* and Alexandr Nikolaevich Nateprov[2], *[1]Russian Academy of Sciences, Kazan Physical-Technical Institute of the Russian Academy of Sciences, Russia; [2]Academy of Sciences of Moldova, Institute of Applied Physics, Moldova*

QG24 **Elastic properties and stability of Heusler compounds**
S. C. Wu*, S. S. Naghavi, G. H. Fecher and C. Felser, *Max Planck Inst. for Chem. Phys. of Solids; Inst. for Inorg. and Analy. Chem., Uni. Mainz, Germany*

QG25 **Electronic and magnetic properties of ferromagnet/dilute-magnetic semiconductor interfaces**
Alessandra Continenza* and Gianni Profeta, *Physics, Universita' degli studi dell'Aquila, Italy*

QG26 **Mn-Sublattice of $YbMn_2Si_2$**
Stewart J Campbell[1]*, Michael Hofmann[2], Richard A Mole[3], Karel Prokes[4], Jianli Wang[5] and Dirk Wallacher[6], *[1]School of Physical, Environmental and Mathematical Sciences, ADFA, The University of New South Wales, Australia; [2]Forschungsneutronenquelle Heinz Maier-Leibnitz (FRM II), Technische Universitat Munchen, Germany; [3]Bragg Institute, ANSTO, Australia; [4]Helmholz Zentrum Berlin, Lise Meitner Campus, Germany; [5]Institute for Superconducting & Electronic Materia, University of Wollongong, Australia; [6]Helmholz Zentrum Berlin, Lise Meitner Campus, Germany*

QG27 **Electronic structures and magnetic properties of full and half Fe-Mn-Ga Heusler alloys**
Y. V. Kudryavtsev[1], N.v. Uvarov[1], J. Dubowik[2], I.N. Glavatskyy[3], Y. J. Yoo[4] and Y. P. Lee[4]*, *[1]G.V.Kurdumov Institute of Metal Physics NAS of Ukraine, Ukraine; [2]Institute of Molecular Physics, PAS, Poland; [3]Helmholtz Centre Berlin for Materials and Energy, Germany; [4]Dept. of Physics, Hanyang University, Korea*

QG28 **Microscopic analysis of magnetic orders in MnP single crystals**
Tsukasa Koyama[1], Shin-ichiro Yano[2], Yoshihiko Togawa[3], Yusuke Kousaka[2], Shigeo Mori[1], Jun-ichiro Kishine[4] and Jun Akimitsu[2], *[1]Department of Materials Science, Osaka Prefecture University, Japan; [2]Department of Physics, Aoyama Gakuin University, Japan; [3]Nanoscience and Nanotechnology Research Center, Osaka Prefecture University, Japan; [4]Graduate School of Arts and Sciences, The Open University of Japan, Japan*

QH: Intermetallic compounds II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: T. Onimaru (Hiroshima University, Japan)

QH01 **Structural and magnetic properties of $Fe_2Mn_{0.5}Cu_{0.5}Al$ Nanocrystalline alloys**
Dwi Nanto[1], Dong-seok Yang[2], Suhk-kun Oh[1] and Seong-cho Yu[1]*, *[1]Dept. of Physics, BK 21 Physics Program and Dept. of Physics, Chungbuk National University, Cheongju, 361-763, Korea; [2]Dept. of Physics Education, Physics Division, Chungbuk National University, Cheongju, 361-763, Korea*

QH02 **Antiferromagnetic resonance in the one-dimensional magnet $IPACu(Cl_{1-x}Br_x)_3$ (x=0.83)**
Takahito Fujita[1], Masayuki Hagiwara[1] and Hirotaka Manaka[2],*[1]KYOKUGEN, Osaka university, KYOKUGEN, Osaka university, 1-3 Machikaneyama, Toyonaka, Osaka 560-8531, Japan; [2]Graduate School of Science and Engineering, Kagoshima University, Graduate School of Science and Engineering, Kagoshima University, 1-21-40 Korimoto, Kagoshima 890-00, Japan*

QH03 **Magnetization steps in Yb_2Pt_2Pb with the Shastry-Sutherland lattice**
Yasuyuki Shimura[1]*, Toshiro Sakakibara[1], Ken Iwakawa[2], Kiyohiro Sugiyama[2] and Yoshichika Onuki[2], *[1]Institute for Solid State Physics, University of Tokyo, Kashiwa, Chiba 277-8581, Japan; [2]Graduate School of Science, Osaka University, Toyonaka, Osaka 560-0043, Japan*

QH04 **Mossbauer study on Fe (Si,Ge) alloys**
Yasushi Amako, Yusuke Taniguchi and Miho Nakashima, *Faculty of Science, Shinshu University, Japan*

QH05 **Ab initio and Monte Carlo investigations of the magnetic exchange and curie temperature of $Ni_2Mn_{1+x}Sn_{1-x}$ alloys**
Vasiliy Buchelnikov[1]*, Vladimir Sokolovskiy[1], Mikhail Zagrebin[1], Peter Entel[2] and Sergey Taskaev[1], *[1]Chelyabinsk State University, Russia; [2]University of Duisburg-Essen, Germany*

QH06 **Structural, magnetic, magnetocaloric and magneto-transport properties in Ge doped Ni-Mn-Sb Heusler Alloys**
A. K. Nigam[1], Roshnee Sahoo[2] and K. G. Suresh[2]*, *[1]Physics, TIFR, Mumbai, India; [2]Physics, IIT Bombay, India*

QH07 **Effect of doped Mn ions in thermoelectric material of Mg_3Sb_2**
Soo Hyun Kim[1], Chung Man Kim[1], Junpei Kajino[2], Toshiro Takabatake[2] and Myung-hwa Jung[1]*, *[1]Physics, Sogang university, Korea; [2]Physics, Hiroshima University, Japan*

QH08 **X-ray diffraction study on crystal structure of $Mn_{1.8}Co_{0.2}Sb$ under high magnetic fields**
Hiroki Orihashi[1]*, Daisuke Mitsunaga[1], Masahiko Hiroi[1], Yoshifuru Mitsui[2], Kohki Takahashi[2], Kazuo Watanabe[2] and Keiichi Koyama[1], *[1]Graduate School of Science Engineering, Kagoshima University, Japan; [2]HFLSM, IMR, Tohoku University, Japan*

QH09 **Emergence of ferromagnetism under pressure in $(Mu_{1-x}Fe_x)_3GaN$**
S. Iikubo[1,6], T. Inagaki[2], K. Takenaka[2], K. Matsubayashi[3], Y. Uwatoko[3], H. Takagi[4], and H. Ohtani[5,6], *[1]Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Japan; [2]Department of Crystalline Materials Science, Nagoya University, Japan; [3]Institute for Solid State Physics University of Tokyo, Japan; [4]RIKEN (The Institute of Physical and Chemical Research), Japan; [5]Department of Materials Science and Engineering, Kyushu Institute of Technology, Japan; [6]JST, CREST, Japan*

QH10 **First-principles-calculations of the magnetic anisotropy energy of FeCo and FeNi alloys**
Masanori Enoki[1], Satoshi Iikubo[2] and Hiroshi Ohtani[3], *[1]Graduate School of Engineering, Kyushu Institute of Technology, Japan Science and Technology CREST, Japan; [2]Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Japan Science and Technology CREST, Japan; [3]Department of Materials Science, Kyushu Institute of Technology, Japan Science and Technology, CREST, Japan*

QH11 **Tuning the magnetic properties of amorphous FeZr thin by hydrogen implantation**
Atieh Zamani[1]*, Anders Hall[2], Per Nordblad[3], Bjorgvin Hjorvarsson[1] and Petra Jonsson[1], *[1]Physics and Astronomy, Material Physics, Uppsala University, Sweden; [2]School of Information and Communication Technology (ICT), KTH, Sweden; [3]Department of Engineering Sciences, Uppsala University, Sweden*

QH12 **Normal and intrinsic anomalous Hall effect in $NbFe_2$**
Sven Friedemann[1]*, William J Duncan[2], Andreas Neubauer[3], Manuel Brando[4], Christian Pfleiderer[3] and F Malte Grosche[1], *[1]Cavendish Laboratory, University of Cambridge, United Kingdom; [2]Department of Physics, Royal Holloway University of London, United Kingdom; [3]Physik Department E21, Technical University Munich, Germany; [4]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*

QH13 **Magnetovolume effect in the itinerant-electron frustrated magnet Fe_3Mo_3N**
Yoshikazu Tabata[1]*, Masaki Yamamoto[1], Shinsuke Terazawa[1], Takeshi Waki[1], Kenji Ishida[2] and Hiroyuki Nakamura[1], *[1]Department of Materials Science and Engineering, Kyoto University, Japan; [2]Department of Physics, Kyoto University, Japan*

QH14 **NMR studies of magnetic properties in the spinel-type $Cu(Cr_{1-x}Hf_x)_2S_4$**
Haruo Niki[1]*, Morihito Oshiro[1], Saori Nakamura[1], Ayaka Uechi[1], Mamoru Yogi[1], Shuji Ebisu[2] and Shoichi Nagata[2], *[1]Department of Physics, Faculty of Science, University of the Ryukyus, Japan; [2]Muroran Institute of Materials Research, Japan*

QH15 **Relationship between microstructure and magnetic properties of nano-scale magnetic particles formed in a Cu-Ni-Co alloy**
Donghae Lee[1], Mahoto Takeda[1]*, Sung Kang[2] and Takahiro Moriki[1], *[1]Department of materials engineering,Yokohama national university, Japan; [2]Research Institute of Industrial Science & Technology(RIST), Korea*

QH16 **Magnetic study of mechanically deformed FeAlSi alloys**
Estibaliz Legarra[1], Estibaliz Apinaniz[2], Damian Martin-rodriguez[3], Jose Javier Garitaonandia[4] and Fernando Plazaola[1], *[1]Department of Electricity and Electronics, Basque Country University, UPV/EHU, p. c. 644, 48080, Bilbao, Spain; [2]Department of Applied Physics I, Basque Country University, UPV/EHU, Alameda Urquijo s/n, 48013, Bilbao, Spain; [3]Julich Centre for Neutron Science and Institute for Complex Systems, Forschungszentrum Julich GmbH, 52425 Julich, Germany; [4]Department of Applied Plysics II, Basque Country University, UPV/EHU, p. c. 644, 48080, Bilbao, Spain*

QH17 **The propagation of electromagnetic waves in magnetic with ferromagnetic spiral**
Igor Valer'evich Bychkov[1], Vasily Dmitrievich Buchelnikov[1], Dmitry Aleksandrovich Kuzmin[1] and Vladimir Grigor'evich Shavrov[2], *[1]Cheliabinsk State University, Russia; [2]The Institute of Radioengineering and Electronics of RAS, Russia*

QH18 **Magnetism of sigma-phase Fe-Mo and Fe-Re systems**
Jakub Cieslak[1]*, Stanislaw M Dubiel[1], Michael Reissner[2] and Janusz Tobola[1], *[1]Academy of Mining and Metallurgy, AGH al. Mickiewicza 30, 30-059 Krakow, Poland; [2]Institute of Solid State Physics, Vienna University of Technology, A-1040 Wien, Austria*

QH19 **Second order magnetization effects in bcc Fe**
Dominik Legut*, Jaroslav Hamrle and Jaromir Pistora, *Nanotechnology Centre, VSB-Technical University of Ostrava, Czech Republic, Czech Republic*

QH20 **Magnetic structure of nearly equiatomic MnRh alloy**
Yuki Matsuoka[1] and Aya Takasaki[2], *[1]Nara Women's University, Japan; [2]Graduate School of Humanities and Sciences, Nara Women's University, Japan*

QH21 **Magnetic and transport properties of $Pd_2Mn_{1+x}In_{1-x}$ Heusler alloys**
Hironari Okada[1]*, Yohei Yamazaki[2], Takashi Yasuda[1] and Takeshi Kanomata[1], *[1]Faculty of Engineering, Tohoku Gakuin University, Japan; [2]Division of Engineering, Graduate School of Tohoku Gakuin University, Japan*

QH22 **Structural and magnetic properties of (Co, Fe, Ni), (Fe, Mg, Zn) and (Fe, Mn, Zn) alloys deposited onto Al_2O_3 and SiO_2**
Lonzeche Jean Augustin Lodya[1]*, Adli Beck[2], Rudelle White[3], Bongani Xaba[1], Siyanda Lubhelwane[1], Khuselwa Vundisa[1] and Jeanette Ngubane[1], *[1]Research & Development, Sasol Technology, South Africa; [2]Chemistry Department, University of Stellenbosch, South Africa; [3]Chemistry Department, North-West University, South Africa*

QH23 **Structure disorder effect of $L1_0$ FePt within supercell method**
Kazuhiko Uebayashi, *Section of Natural Science, Akita National College of Technology, Japan*

QH24 **Itinerant antiferromagnetism in high-quality single crystal CrB_2**
Andreas Bauer[1]*, Alexander Regnat[1], Christian Blum[2], Saskia Gottlieb-schoenmeyer[1], Bjoern Pedersen[3], Sabine Wurmehl[2], Bernd Buechner[2] and Christian Pfleiderer[1], *[1]Physik-Department E21, Technische Universitaet Muenchen, D-85748 Garching, Germany; [2]Leibniz Institute for Solid State and Materials Research IFW, D-01171 Dresden, Germany; [3]Forschungsneutronenquelle Heinz-Maier Leibniz, Technische Universitaet Muenchen, D-85748 Garching, Germany*

QH25 **Magnetic orderings in Fe-intercalated TiX_2 (X=S, Se)**
Seung Ill Hyun and J.h. Shim*, *Chemistry, POSTECH, Korea*

QH26 **Non-stoner itinerant ferromagnetism of a transition metal monomer**
Hanhim Kang, Geunsik Lee, P. Dua, Ji-hoon Shim and Kwang S Kim*, *Department of Chemistry, POSTECH, Korea*

QH27 **Magnetic structure variation with structural phase transition in $SrMnSb_2$**
M. Arshad Farhan, Geunsik Lee and Ji Hoon Shim*, *Chemistry, POSTECH, Korea*

QH28 **Magnetoresistance effect of Heusler-type Fe_2VAl single crystal**
Rika Hamada[1], Hidetoshi Miyazaki[2]* and Yoichi Nishino[1], *[1]Department of Frontier Materials, Nagoya Institute of Technology, Japan; [2]Center for Fostering Young and Innovative Researchers, Nagoya Institute of Technology, Japan*

QH29 **Electronic structures and magnetic properties of antiferromagnetic $BaFe_2As_2$**
Jae Kyung Chang, Ju Young Kim, Chang Hyun Yi and Joo Yull Rhee*, *Department of physics, Sungkyunkwan university, Korea*

QI: Lanthanides I

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Vladimir Sechovsky (Charles University, Czech Republic)

QI01 **Development of magnetic order in the TbNi(Al,In) series and magnetocrystalline anisotropy in TbTX compounds**
Milan Klicpera[1]*, Pavel Javorsky[1], Ines Puente Orench[2], Eva Santava[3] and Stanislav Danis[1], *[1]Department of Condensed Matter Physics, Charles University in Prague, Faculty of Mathematics and Physics, Czech Republic; [2]Institut Laue-Langevin, Grenoble, France; [3]The Academy of Sciences of the Czech Republic, Czech Republic*

QI02 **Magnetic properties of $Ho_{1-x}Lu_xB_{12}$ solid solutions**
Slavomir Gabani[1], Emil Gazo[1], Gabriel Pristas[1], Marian Reiffers[1], Iveta Takacova[1], Natasha Shitsevalova[2], Konrad Siemensmeyer[3], Nickolay Sluchanko[4] and Karo Flachbart[1]*, *[1]Institute of Experimental Physics of Slovak Academy of Sciences, Kosice, Slovak; [2]Institute for Problems of Materials Sciences, NASU, Kiev, Ukraine; [3]Helmholtz Zentrum Berlin, Berlin, Germany; [4]General Physics Institute, RAS, Moscow, Russia*

QI03 **High-field magnetization of Tm_2Fe_{17} and its deuteride**
A. V. Andreev[1]*, O. Isnard[2], M. D. Kuz'min[3], Y. Skourski[4], D. I. Gorbunov[1], J. Wosnitza[4], N. V. Kudrevatykh[5], A. Iwasa[6], A. Kondo[6], A. Matsuo[6] and K. Kindo[6], *[1]Institute of Physics ASCR, 18221 Prague, Czech Republic; [2]Institut Neel CNRS and Universite Joseph Fourier, BP166X, Grenoble, France; [3]IFW, 01171 Dresden, Germany; [4]High Magnetic Field Laboratory, 01314 Dresden, Germany; [5]Ural Federal University, 620083 Ekaterinburg, Russia; [6]ISSP, Tokyo University, 277-8581 Kashiwa, Japan*

QI04 **RKKY interaction and magnetic properties in (Y-Gd)Ni compounds**
Kazuo Yano[1]*, Katsuhiko Nishimura[2], Eiji Kita[3], Tsuyoshi Ohta[4] and Kiyoo Sato[5], *[1]College of Science and Technology, Nihon University, Japan; [2]Graduate Scool of Science and Engineering for Research, University of Toyama, Japan; [3]Applied Physics, University of Tsukuba, Japan; [4]Quatum Desighn Japan; [5]Faculty of Engineering, Yokohama National University, Japan*

QI05 **Magntization curves in high magnetic fields of $TbZn_2$**
Yoshiya Adachi[1], Tetsuo Kitai[2], Keiichi Koyama[3], Hajime Yoshida[4] and Takejiro Kaneko[4], *[1]Graduate School of Science and Engineering, Yamagata University, Japan; [2]Faculty of Engineering, Kyushu Institute of Technology, Japan; [3]Graduate School of Science and Engineering, Kagoshima University, Japan; [4]IMR, Tohoku University, Japan*

QI06 **Deuteration induced ferromagnetic metallic properties in R_7Rh_3Dx (R = Tb, Dy)**
Koji Shimomura[1]*, Takanori Tsutaoka[1] and Stanislaw M. Filipek[2], *[1]Graduate School of Education, Hiroshima University, Japan; [2]Institute of Physical Chemistry, Polish Academy of Sciences, Poland*

QI07 **Magnetic properties of Nd_7Pd_3 single crystal**
Takuya Matsushita, Koji Shimomura and Takanori Tsutaoka*, *Graduate School of Education, Hiroshima University, Japan*

QI08 **Giant magnetoresistance and field-induced phase transitions in Tb_7Rh_3 single crystal**
Takanori Tsutaoka[1]*, Koji Shimomura[1], Nikolay V. Baranov[2], Alexey V. Proshkin[2], Evgeny G. Gerasimov[3] and Pavel B. Terentev[3], *[1]Graduate School of Education, Hiroshima University, Japan; [2]Institute of Natural Sciences, Ural Federal University, Russia; [3]Institute of Metal Physics, Ural Branch of RAS, Russia*

QI09 **Magnetic properties of a $GdFe_5Al_7$ single crystal**
D. I. Gorbunov[1]*, A. V. Andreev[1] and M. D. Kuz'min[2], *[1]Institute of Physics ASCR, 18221 Prague, Czech Republic; [2]IFW, 01171 Dresden, Germany*

QI10 **Study of multipole ordering in $CePd_3S_4$ by resonant X-ray diffraction with full polarization analysis**
Sinji Michimura[1]*, Toshiya Inami[1], Toru Otsubo[2], Takeshi Matsumura[2], Hiroshi Tanida[2], Masafumi Sera[2], Eiichi Matsuoka[3], Masanori Watahiki[4], Katsumi Tanigaki[4] and Hideya Onodera[4], *[1]Condensed Matter Science Division, Japan Atomic Energy Agency, Japan; [2]AdSM, Hiroshima University, Japan; [3]Department of Physics, Kobe University, Japan; [4]Department of Physics, Tohoku University, Japan*

QI11 **Effect of temperature and magnetic field history on magnetization behavior of $NdVO_3$ polycrystalline**
Zhengcai Xia*, *Wuhan National High Magnetic Field Center, Huazhong University of Science and Technology, China*

QI12 **Phase diagram and transport properties of $Y_{1-x}NdxCo_2$ pseudo-binary alloys**
Alexander T Burkov[1], Masataka Takeda[2], Ai Nakamura[2], Yoshinao Takaesu[2], Kiyoharu Uchima[3], Masato Hedo[2], Takao Nakama[2]*, Katsuma Yagasaki[2] and Yoshiya Uwatoko[4], *[1]A. F. Ioffe Physical-Technical Institute, Russian Academy of Sciences, Russia; [2]Department of Physics and Earth Sciences, Faculty of Science, University of the Ryukyus, Japan; [3]General Education, Okinawa Christian Junior College, Japan; [4]Institute for Solid State Physics, University of Tokyo, Japan*

QI13 **Effect of partial magnetic order on resistivity and thermopower of $Ho(Co_{1-x}Al_x)_2$ alloys**
Takao Nakama[1]*, Chojun Zukeran[1], Ai Nakamura[1], Atsushi Teruya[1], Sentaro Hirakawa[1], Shintaro Watanabe[1], Masataka Takeda[1], Yoshinao Takaesu[1], Kiyoharu Uchima[2], Masato Hedo[1], Katsuma Yagasaki[1] and Alexander T Burkov[3] *[1]Department of Physics and Earth Sciences, Faculty of Science, University of the Ryukyus, Japan; [2]General Education, Okinawa Christian Junior College, Japan; [3]A. F. Ioffe Physical-Technical Institute, Russian Academy of Sciences, Russia*

QI14 **Breakdown of Hund's third rule for intrinsic magnetic moments**
Julia Herrero-albillos[1]*, Fernando Bartolome[2], Luis Miguel Garcia[2] and A. T. Young[3], *[1]CUD, Centro Universitario de la Defensa, Ctra. de Huesca s/n, E-50090 Zaragoza, Spain; [2]ICMA, ICMA and Dpto. de Fisica de la Mat. Cond. CSIC - Universidad de Zaragoza, Pedro Cerbuna 12, Spain; [3]Advanced Light Source, Lawrence Berkeley National Laboratory, University of California Berkeley, CA, USA*

QI15 **Magnetic properties of Y substituted TbB_4**
Boyoun Kang[1], Sungsu Lee[1], Juyoung Kim[2] and B. K. Cho[1]*, *[1]School of Materials Science & Engineering, Gwangju Institute of Science and Technology, Korea; [2]Advanced matallic materials research department, Research Institute of Industrial Science & Technology, Korea*

QI16 **High pressure effects on antiferroquadrupolar orders in RB_2C_2 (R = Dy and Ho)**
Hiroki Yamauchi[1]*, Toyotaka Osakabe[1], Masashi Kosaka[2], Eiichi Matsuoka[3] and Hideya Onodera[4], *[1]Quantum Beam Science Directorate, Japan Atomic Energy Agency, Japan; [2]Graduate School of Science and Engineering, Saitama University, Japan; [3]Department of Physics, Graduate School of Science, Kobe University, Japan; [4]Department of Physics, Graduate School of Science, Tohoku University, Japan*

QI17 **Antiferromagnetism of $TbPd_2Ge_2$ Single Crystals**
Takahiro Hasegawa[1]*, Fujiwara Tetsuya[1], Matsubayashi Kazuyuki[2], Uwatoko Yoshiya[2] and Shigeoka Toru[1], *[1]Grad. Sch. Sci. and Eng. Yamagnchi Univ., Japan; [2]ISSP. Univ. Tokyo., Japan*

QI18 **Multi-step metamagnetic processes in $PrPd_2Si_2$ single crystal**
Toru Shigeoka[1]*, Tetsuya Fujiwara[1], Kazuyuki Matsubayashi[2], Yoshiya Uwatoko[2], Shoji Kimura[3] and Kazuo Watanabe[3], *[1]Yamaguchi University, Japan; [2]ISSP., University of Tokyo, Japan; [3]IMR., Tohoku University, Japan*

QI19 **Anisotropic properties of Tb_2Pd_2In single crystal**
Silvie Maskova[1], Ladislav Havela[1], Olexander Kolomiets[2], Alexander V. Andreev[3] and Pavel Svoboda[1]*, *[1]Department of Condensed Matter Physics, Charles University, Czech Republic; [2]Department of Physics, Lviv Polytechnic National University, Ukraine; [3]Institute of Physics, ASCR, Czech Republic*

QJ: Lanthanides II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Collin Broholm (Johns Hopkins University, USA)

QJ01 **Successive magnetic transitions of $PrRh_2Ge_2$ single crystal**
Okawara Yuu[1]*, Cui Jingwei[1], Fujiwara Tetsuya[1], Matsubayashi Kazuyuki[2], Uwatoko Yoshiya[2], Kimura Shoji[3], Watanabe Kazuo[3] and Shigeoka Toru[1], *[1]Grad. Sch. Sci. and Eng. Yamagnchi Univ., Japan; [2]ISSP. Univ. Tokyo., Japan; [3]IMR. Tohoku Univ., Japan*

QJ02 **Phase diagram of the magnetically frustrated system $SmPd_2Al_3$ studied by neutron diffraction**
Jiri Pospisil[1]*, Gwilherm Nenert[2], Hideaki Kitazawa[3], Martin Divis[1], Jan Prokleska[1] and Vladimir Sechovsky[1], *[1]DCMP, Charles University, Ke Karlovu 5, 121 16, Prague, Czech Republic; [2]Institut Laue Langevin, 6 rue Jules Horowitz, BP 156, F-38042 Grenoble Cedex 9, France; [3]National Institute for Materials Science, Tsukuba, Ibaraki 305-0047, Japan*

QJ03 **Interplay of rare-earth and iron sublattices in NdFeAsO**
Gwendolyne Pascua[1], Hubertus Luetkens[1], Yurii G. Pashkevich[2], Hemke Maeter[3] and Hans-henning Klauss[3], *[1]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland; [2]A.A. Galkin Donetsk Phystek, NASU, 83114 Donetsk, Ukraine; [3]Institut fur Festkorperphysik, TU Dresden, DE-01069 Dresden, Germany*

QJ04 **Magnetic properties of C15 laves phase compound $SmRu_2$**
Yusuke Amakai*, Mototsugu Sato, Naoki Momono, Hideaki Takano and Shigeyuki Murayama, *Graduate School of Engineering, Muroran Institute of Technology, Japan*

QJ05 **Pressure effect on the electrical resistivity of a ferromagnetic clathrate $Eu_8Ga_{16}Ge_{30}$**
T Iizuka[1], K Umeo[2]*, M A Avila[3] and T Takabatake[1], *[1]AdSM, Hiroshima Univ., Kagamiyama 1-3-1, Higashi-Hiroshima 739-8530, Japan; [2]N-BARD, Hiroshima Univ., Kagamiyama 1-3-1, Higashi-Hiroshima 739-8526, Japan; [3]Federal University of ABC, Santo Andre, SP, 09210-170, Brazil*

QJ06 **Magnetic transitions under pressure in $GdCo_2B_2$**
Guanghui Hu[1]*, Izuru Umehara[1], Lingwei Li[2] and Katsuhiko Nishimura[3], *[1]Department of Physics, Yokohama National University, Japan; [2]Institute of Materials Physics, Hangzhou Dianzi University, China; [3]Graduate School of Science and Engineering, University of Toyama, Japan*

QJ07 **New ferromagnetic compounds with noncentrosymmetric crystal structures**
Yoshihiko Inada[1]*, Guizhi Bao[2] and Akiko Ono[1], *[1]Graduate School of Education, Okayama University, Japan; [2]Department of Physics, Okayama University, Japan*

QJ08 **Singlet-triplet crossover in the two-dimensional dimer spin system $YbAl_3C_3$**
Shunichiro Kittaka[1]*, Tomoyoshi Sugiyama[1], Yasuyuki Shimura[1], Toshiro Sakakibara[1], Saori Matsuda[2] and Akira Ochiai[2] *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]Department of Physics, Tohoku University, Japan*

QJ09 **Magnetic structure transition in $PrPd_3$**
Hiroyuki S. Suzuki[1]*, Noriki Terada[1], Akiko Kikkawa[1], Koji Kaneko[2] and Naoto Metoki[2], *[1]National Institute for Materials Science, Japan; [2]Japan Atomic Energy Agency, Japan*

QJ10 **Competition between magnetic ordering and random spin freezing in Dy_2PtSi_3**
D. X. Li[1]*, T. Yamamura[1], S. Nimori[2] and T. Shikama[1], *[1]Institute for Materials Research, Tohoku University, Japan; [2]Tsukuba Magnet Laboratory, National Research Institute for Metals, Japan*

QJ11 **Dilatometric investigations on the semimetallic ferromagnet EuB_6**
Rudra Sekhar Manna[1], Frank Schnelle[1], Mariano De Souza[1], Michael Lang[1], Pintu Das[1], Adham Amyan[1] Jens Mueller[1], Stephan Von Molnar[2], Peng Xiong[2] and Zachary Fisk[3], *[1]Physics Institute, Goethe-University Frankfurt (M), SFB/TR 49, D-60438 Frankfurt (M), Germany; [2]Department of Physics, Florida State University, Tallahassee, Florida 32306, USA; [3]Department of Physics, University of California, Irvine, California 92697, USA*

QJ12 **The magnetic anisotropy and magnetostriction of RAl_2 (R= rare earth) compounds**
Masashi Ohashi, Yusuke Araki and Kazuma Sawami, *Kanazawa University, Japan*

QJ13 **Influence of weak-magnetic, non-magnetic and disoriented grains on remagnetization processes of Nd-Fe-B alloys**
Anna Starikova*, Alexey Lileev and Olga Arinicheva, *National University of Science and Technology 'MISIS' (MISIS), Russia*

QJ14 **Cobalt magnetism in $HoCo_2$ under pressure**
Jaroslav Valenta, Jiri Prchal*, Marie Kratochvilova, Martin Misek and Vladimir Sechovsky, *Department of Condensed Matter Physics, Charles University in Prague, Czech Republic*

QJ15 **High-field magnetization study of $ErCo_2$**
Maurice Guillot[1] and Yildirhan Oner[2]*, *[1]Grenoble High Magnetic Field Laboratory, CNRS, BP166, 38042 Grenoble Cedex 9, France; [2]Department of Physics, Istanbul Technical University, Turkey*

QJ16 **Resonance, magnetic and neutron investigations of magnetic structures in $Pr_{1-x}Y_xFe_3(BO_3)_4$ system**
A Pankrats[1], V Tugarinov[1]*, C Ritter[2], D Velikanov[1], I Gudim[1] and V Temerov[1], *[1]Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russia; [2]Institute Laue-Langevin, Grenoble, France*

QJ17 **Anisotropic transport and magnetic properties of PrGe single crystal**
Pranab Kumar Das, Neeraj Goyal, Ruta Kulkarni, Arumugam Thamizhavel and Sudesh Kumar Dhar, *Department of Condensed Matter Physics and Materials Science, Tata Institute of Fundamental Research, Mumbai, India*

QJ18 **Theoretical investigation of the phase transition and the spin-gap behavior of the triangular antiferromagnet $YbAl_3C_3$**
Changhoon Lee[1]*, Myung-hwan Whangbo[2], Juergen Koehler[3] and Ji-hoon Shim[1], *[1]Chemistry, Postech, Korea; [2]Chemistry, North Carolina State University, USA; [3]MPI for Solid State Research, Stuttgart, Germany*

QJ19 **First Principle Analysis for Magnetism & Pressure effects on CDW Phase in $SmNiC_2$**
Jae Nyeong Kim and Ji-hoon Shim*, *Chemistry, POSTECH, Korea*

QK: Spin-dependent transport II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)

Chairpersons: H. Adachi (Japan Atomic Energy Agency, Japan)
M. Bibes (Unite Mixte de Physique CNRS/Thales, France)

QK01 The magnetoresistance of sandwich-structure organic spin-valve
Feng Li*, Fapei Zhang and Yu Xiao, *High Magnetic Field Laboratory, Chinese Academy of Science, China*

QK02 First-principles calculations investigation of interfacial roles in spin-dependent transport properties in OMTJs
Shiheng Liang[1], Dongping Liu[1], Lingling Tao[1], Hong Guo[2] and Xiufeng Han[1]*, *[1]Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, China; [2]Department of Physics and Center for the Physics of Materials, McGill University, Montreal, Quebec, Canada*

QK03 GMR properties on flexible polymer film with bending stress
Joonhyun Kwon, Seungha Yoon, Seungkyo Lee, Jeonghyeon Lee and B. K. Cho*, *School of Materials Science and Engineering, Gwangju Institute of Science and Technology (GIST), Korea*

QK04 Giant magnetoresistance in graphene nanoribbons: Geometry, interface and dephasing effects
Stefan Krompiewski*, *Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland*

QK05 Negative magnetoresistance in ferromagnet/semiconductor/ferromagnet structures with cubic dresselhaus spin-orbit-interaction
Kenji Kondo*, *Laboratory of Quantum Electronics, Research Institute for Electronic Science, Japan*

QK06 Spin valve effect of NiFe/graphene/NiFe junctions
Muhammad Zahir Iqbal, Muhammad Waqas Iqbal and Jonghwa Eom*, *Department of Physics & Graphene Research Institute, Sejong University, Korea*

QK07 Giant magnetoimpedance and photoinduced magnetoresistance effects in ferromagnet/SiO_2/p-Si hybrid structures
N. V. Volkov*, A. S. Tarasov, E. V. Eremin, A. V. Eremin, S. N. Varnakov and S. G. Ovchinnikov, *L.V. Kirensky Institute of Physics SB RAS, Russia*

QK08 Charge imbalance with the same decaying length as spin accumulation
Yao-hui Zhu*, *Physics Department, Beijing Technology and Business University, China*

QK09 Simulation of spin-dependent transport in GaAs: Effect of electron-electron interactions
Matthew Hodgson, Gionni Marchetti, Roy W. Chantrell and Irene D'amico, *Physics, University of York, United Kingdom*

QK10 Electrical detection of spin-polarized current in InAs quantum point contacts
Taeyueb Kim[1, 2], Sungjung Joo[1], Jinki Hong[1]*, Kungwon Rhie[1], Hyuncheol Koo[2]*, Jindong Song[3], Joonyeon Chang[2], Sukhee Han[2], Kyungho Shin[2], *[1]Department of Applied Physics, Korea University, Chochiwon, Korea; [2]Spin device research center, Korea Institute of Science and Technology, Seoul 136-791, Korea; [3]Nano Photonics research center, Korea Institute of Science and Technology, Seoul 136-791, Korea*

QK11 Gate dependence of spin-orbit interaction in a two-dimensional hole gas structure
Youn Ho Park[1], Hyun Cheol Koo[1]*, Sang-hoon Shin[1], Jin Dong Song[1], Hyung-jun Kim[1], Joonyeon Chang[1], Suk Hee Han[1] and Heon-jin Choi[2], *[1]Spin Device Research Center, Korea Institute of Science and Technology, Korea; [2]Department of Materials Science and Engineering, Yonsei University, Korea*

QK12 Perpendicular spin transport in ferromagnet/MgO/GaAs structures
Joohyung Bae[1], Kyung-ho Kim[1], Hyun Cheol Koo[1]*, Hyung-jun Kim[1], Joonyeon Chang[1], Suk Hee Han[1] and Sang Ho Lim[2], *[1]Spin Device Research Center, Korea Institute of Science and Technology, Korea; [2]Department of Materials Science and Engineering, Korea University, Korea*

QK13 Spin hall effect in 2DEG in the presence of Rashba spin-orbit interation
Won Young Choi, Hyung-jun Kim, Joonyeon Chang, Suk Hee Han and Hyun Cheol Koo*, *Korea Institute of science and technology, Korea*

QK14 Spin transport and spin injection into turbostratic graphene
June Seo Kim[1], Sebastian Schweitzer[2], Ajit K Patra[2], Yenny Hernandez[3], Klaus Muellen[3], Xinliang Feng[3] and Mathias Klaeui[1]*, *[1]Institut fuer Physik, Johannes Gutenberg-Universitaet Mainz, Germany; [2]Fachbereich Physik, Universitaet Konstanz, Germany; [3]Max Planck Institute for Polymer Research, Germany*

QK15 Spin signal in metallic lateral spin valves made by a shadow evaporation technique
Piotr Laczkowski, Laurent Vila, Williams Savero-torres, Van Dai Nguyen, Juan Carlos Rojas-sanchez, Murat Cubukcu, Alain Marty, Lucien Notin, Cyrille Beigne and Jean-philippe Attane, *Universite Joseph Fourier, BP 53, 38041, Grenoble and INAC/ CEA Grenoble, France*

QK16 Hanle effect with in-plane magnetic fields in metallic lateral spin valves
Juan-carlos Rojas Sanchez, Laurent Vila, Matthieu Jamet, Piotr Laczkowski, Murat Cubukcu, Williams Savero-torres, Van Dai Nguyen, Alain Marty, Cyrille Beigne and Jean-philippe Attane, *Universite Joseph Fourier, BP 53, 38041, Grenoble and INAC/ CEA Grenoble, France*

QK17 Detecting the magnetization switching of a ferromagnetic dot using non local spin injection by means of lateral spin valve structures
Williams Savero-torres, Laurent Vila, Alain Marty, Piotr Laczkowski, Van Dai Nguyen, Murat Cubukcu, Juan-carlos Rojas Sanchez, Lucien Notin and Jean-philippe Attane, *Universite Joseph Fourier, BP 53, 38041, Grenoble and INAC/ CEA Grenoble, France*

QK18 Perfect spin filter and highly spin-polarized current induced by fano antiresonance effect in the multiple-quantum-dot nanodevices
Hua-hua Fu[1], Kai-lun Yao[2]* and Zu-li Liu[2], *[1]Department of Physics, Huazhong University of Science and Technology, Wuhan 430074, China; [2]Physics Department, Huazhong University of Science and Technology, Wuhan 430074, China*

QK19 Transmission of spin polarized photoelectrons across ferromagnet/semiconductor interfaces using oblique Hanle effect
Yasuhiro Shirahata[1], Toshiyuki Isozaki[1], Ippei Suzuki[1], Eiji Wada[1], Mitsuru Itoh[1], Masahito Yamaguchi[2] and Tomoyasu Taniyama[1], *[1]Materials and Structures Laboratory, Tokyo Institute of Technology, Japan; [2]Department of Electrical Engineering and Computer Science, Nagoya University, Japan*

QK20 Electric field tunning and spin coulomb drag in spin field effect transistors (spin-FETs)
George Alexandru Nemnes, Lucian Ion and Stefan Antohe, *University of Bucharest, Faculty of Physics, Romania*

QK21 The Rashba-type Spin splitting in Pb monolayer on Si and Ge surfaces: a first-principles study
Hyungjun Lee and Hyoung Joon Choi*, *Department of physics, Yonsei University, Korea*

QK22 Geometry effect on quasi-twodimensional electron system
Kuo-chin Chen, Hsin-han Lee and Ching-ray Chang*, *National Taiwan University, Taiwan*

QK23 Electrical measurement of spin accumulation and transport in Fe/AlGaAs heterostructures
Joon-il Kim[1]*, Jennifer Misuraca[1], Kangkang Meng[2], Jun Lu[2], Lin Chen[2], Jianhua Zhao[2], Stephan Von Molnar[1] and Peng Xiong[1], *[1]Physics, Department of Physics, Florida State University, Tallahassee, Florida, USA; [2]Physics, Institute of Semiconductors, Chinese Academy of Sciences, Beijing, China*

QK24 Pure spin current injection into a Gd wire
Seiji Nonoguchi, Tatsuya Nomura and Takashi Kimura*, *Kyushu University, Japan*

QL: Diluted magnetic semiconductors and others

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: M. Kohda (Tohoku University, Japan)

QL01 Synthesis and characterization of $Ba_3Co_2Fe_{24}O_{41}$ by the proteic sol-gel process
Bruna Andrade, Petrucio Silva and Marcelo Macedo*, *Physics, Federal University of Sergipe, Brazil*

QL02 Ferromagnetism in vanadium doped ZnO thin films grown by pulsed laser deposition
Shumaila Karamat[1]*, Rajdeep Singh Rawat[2], Paul Lee[3], Tan Lee Augustine[4], Raju V Ramanujan[5] and H.d Sun[6], *[1]Physics, NIE, Nanyang Technological University, Singapore 2. COMSATS,Islamabad, Pakistan; [2]Physics, National Institute of Education, Nanyang Technological University, Singapore; [3]Physics, NIE-NTU, Singapore; [4]Physics, NIE-NTU Singapore; [5]Material Science, MSE-NTU Singapore; [6]SPMS, SPMS-NTU, Singapore*

QL03 The magnetic and dielectric properties of multiferroic $Bi_{1-x}Gd_xFeO_3$
Takuya Yanoh*, Naoki Sakai, Liming Zhu, Akinobu Kurokawa, Hiromasa Takeuchi, Shinya Yano, Kazuki Onuma, Takaya Kondo, Kazunari Miike, Toshiki Miyasaka and Yuko Ichiyanagi, *Physics, Yokohama National University, Japan*

QL04 Double-exchange interaction in heavily Mn-doped CuO thin films
Li Li, Bin Lv, Shen Wang, Jinzhu Cai, Wenqin Zou, Fengming Zhang* and Xiaoshan Wu, *Physics, Nanjing University, China*

QL05 Magnetic properties of Cu-doped GaN films grown by MBE
Philipp R. Ganz[1], Christoph Suergers[2]*, Gerda Fischer[3] and Daniel M. Schaadt[4], *[1]Institut fur Angewandte Physik and DFG-Center for Functional Nanostructures, Karlsruhe Institute of Technology (KIT), Germany; [2]Physikalisches Institut and DFG Center for Functional Nanostructures, Karlsruhe Institute of Technology (KIT), Germany; [3]Physikalisches Institut, Karlsruhe Institute of Technology (KIT), Germany; [4]Institute for Energy Research and Physical Technologies, Clausthal University of Technology, Germany*

QL06 Magnetism and electronic transport of MnAs single nanostructures
Federico Fernandez Baldis[1], Marina Tortarolo[2], Martin Sirena[1], Laura Steren[3], Victor Etgens[2] and Mahmoud Eddrief[2] *[1]Centro Atomico Bariloche, Argentina; [2]Institut des NanoSciences de Paris, France; [3]Centro Atomico Constituyentes, Argentina*

QL07 The generated antiferromagnetic and ferromagnetic states in nanocrystalline Cu-Cu_2O system and the consequences for spin chemistry
Anatoly Yermakov[1]*, Michael Uimin[1], Alexandre Korolyov[1], Ilya Byzov[1], Alexey Mysik[1], Vladislav Maikov[1] and Mamoru Senna[2], *[1]Institute of Metal Physics, Ural Branch of RAS, Russia; [2]Faculty of Science and Technology, Keio University, Japan*

QL08 Unidirectional anisotropy observed in Fe film grown on GaAs at low temperature
Seonghoon Choi[1], Taehee Yoo[1], S. Khym[1], Sanghoon Lee[1]*, X. Liu[2] and J. K. Furdyna[2], *[1]Physics Department, Korea University, Korea; [2]Physics Department, University of Notre Dame, USA*

QL09 Magnetic properties of hydrothermally synthesized ZnO nanostructures
H Hadiyawarman, Kadek J. Parwanta, Bowha Lee and Chunli Liu*, *Department of Physics, Hankuk University of Foreign Studies, Korea*

QL10 Electrical, magnetic and magnetoimpedance studies of LSMO thin film prepared by sol gel method
Pawan Kumar and Ramanathan Mahendiran, *Physics, NUS, Singapore*

QL11 Differential conductance measurements in Ni nanoscale contact fabricated by electromigration
Junya Sakai[1]*, Koichiro Ienaga[1], Yuji Inagaki[1], Hiroyuki Tsujii[2], Ryuya Nomura[3], Seiji Nonoguchi[3], Takashi Kimura[4] and Tatsuya Kawae[5], *[1]Department of Applied Quantum Physics, kyushu university, Japan; [2]Faculty of Education, Kanazawa university, Japan; [3]INAMORI Frontier Research Center, Kyushu University, Japan; [4]INAMORI Frontier Research Center, Kyushu University, Japan; [5]Department of Applied Quantum Physics, Kyushu University, Japan*

QL12 (Withdrawn) Magnetoresistance measurements in Pd atomic-scale contact at 4.2K
Koichiro Ienaga[1]*, Naoya Nakashima[1], Yuji Inagaki[1], Hiroyuki Tsujii[2] and Tatsuya Kawae[1], *[1]Department of Applied Quantum Physics, Kyushu University, Japan; [2]Faculty of Education, Kanazawa University, Japan*

QL13 (Withdrawn) Differential conductance measurements in Cu-Mn atomic-scale contacts
Koichiro Ienaga[1], Naoya Nakashima[1], Yuji Inagaki[1], Hiroyuki Tsujii[2] and Tatsuya Kawae[1]*, *[1]Department of Applied Quantum Physics, Kyushu University, Japan; [2]Faculty of Education, Kanazawa University, Japan*

QL14 Tuning the magnetic interaction in carbon nanotube/NiO nanocomposite system
S Chattopadhyay, S Giri and S Majumdar*, *Department of Solid State Physics, Indian Association for the Cultivation of Science, India*

QL15 Bias-voltage dependence of magnetotransport properties in co-deposited Co-C granular thin films
Jun-goo Kang[1]*, Masaki Mizuguchi[1], Shiro Entani[2], Seiji Sakai[2] and Koki Takanashi[1], *[1]Institute for Materials Research, Tohoku University, Japan; [2]Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

QL16 Switchable voltage control of the magnetic anisotropy in heterostructured nanocomposites of CoFe/NiFe/PZT
Thang D. Pham[1]*, Hong T. M. Nguyen[2], Dong H. Kim[3], Tiep H. Nguyen[2] and Cuong V. Le[2], *[1]Faculty of Engineering Physics and Nanotechnology, University of Engineering and Technology, Vietnam National University, Hanoi, Viet Nam; [2]Laboratory for Micro and Nanotechnology, University of Engineering and Technology, Vietnam National University, Hanoi, Viet Nam; [3]Department of Physics, Chungbuk National University, Korea*

QL17 Origin of the ferromagnetism in scandium-doped ZnO thin films
Mohammed Benali Kanoun*, Souraya Goumri-said, Udo Schwingenschlogl and Aurelien Manchon, *King Abdullah University of Science and Technology (KAUST), Saudi Arabia*

QL18 Magnetic control of the hydrogen storage of hydrogen-injected ZnCoO
Bum-su Kim[1], Seunghun Lee[1] Jong Moon Shin[2], Yong-chan Cho[1], Yong Nam Choi[3], Hee-ju Lee[3], Chae Ryong Cho[2], Hideomi Koinuma[1] and Se-young Jeong[1]*, *[1]Cogno-Mechatronics Engineering, Pusan National University, Korea; [2]Nano fusion technology, Pusan National University, Korea; [3]Korea Atomic Energy Research Institute, Korea*

QL19 Ferromagnetism in Co-doped TiO_2 films probed by low-energy muon spin rotation
Hassan Saadaoui[1]*, Jiabao Yi[2], Zaher Salman[1], Thomas Prokscha[1] and Elvezio Morenzoni[1], *[1]Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland; [2]School of Materials Science and Engineering, University of New South Wales, Kensington, NSW, 2052, Australia*

QL20 Structural and magnetic changes induced by high energy ball milling of $CdFe_2O_4$ oxide
Justice Msomi and Ta Nhlapo, *School of Chemistry and Physics, University of KwaZulu-Natal, South Africa*

QL21 Room temperature ferromagnetism in $Zn_{1-x}Ni_xS$ diluted magnetic semiconducting nanocrystalline thin films
M A El-hagary[1]*, Soltan Soltan[2], M Emam-ismail[1] and S Althoyaib[1], *[1]Physics Department, Qassim University, Saudi Arabia; [2]Physics Department, Helwan University, Helwan, Cairo, Egypt*

QM: Magnetic characterization

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: T. Nakagawa (IMS, Japan)

QM01 **Extraordinary hall measurements of Co/Ni multilayers**
Chih-yung Chen[1], James C Eckert[1], Natalia Fear[1], Sheena K. K. Patel[1], Richard Sayanagi[1], Patricia D Sparks[1], E Shipton[2] and Eric E Fullerton[2], *[1]Physics, Harvey Mudd College, USA; [2]University of California, San Diego, USA*

QM02 **Magnetic spin structure of $Fe_{50}Pt_{50-x}Rh_x$ films**
Jochen Fenske[1], Dieter Lott[1], Gary J. Mankey[2], Wolfgang Schmidt[3], Karin Schmalzl[3], Elena V. Tartakovskaya[4] and Andreas Schreyer[1], *[1]Helmholtz-Zentrum Geesthacht, Germany; [2]MINT Center, University of Alabama, USA; [3]Juelich Centre for Neutron Science, Germany; [4]Institute for Magnetism, National Ukrainian Academy of Science, Ukraine*

QM03 **Cross over from anisotropic magnetoresistance to magnon magnetoresistance in PLD grown permalloy nanowires**
Vineeth Mohanan Parakkat and Anil P. S Kumar, *Physics, Indian Institute of Science, India*

QM04 **Investigation of magnetic anisotropy of ferromagnetic GaMnAs film by planar Hall effect**
Jaehyuk Won[1], Jinsik Shin[1], Yoonjung Gwon[1], Hyehyeon Byeon[1], Sangyeop Lee[1], Sanghoon Lee[1]*, X. Liu[2] and J. K. Furdyna[2], *[1]Physics Department, Korea University, Korea; [2]Physics Department, University of Notre Dame, USA*

QM05 **A crossover between magnetic vortex state and strip domains in electrodeposited nanogranular nickel films**
Alexander Sergeevich Samardak[1]*, Ekaterina Sukovatitsina[1], Alexey Ognev[1], Ludmila Chebotkevich[1], S. M. Janjan[2] and Farzad Nasirpouri[2], *[1]School of Natural Sciences, Far Eastern Federal University, Institute of Automation and Control Processes FEBRAS, Russia; [2]Department of Materials Engineering, Sahand University of Technology, Iran*

QM06 **Non-linear susceptibility of nanogranular FeAg films at the verge of superferromagnetism**
D. Alba Venero[1], L. Fernandez Barquin[1]*, S. N. Kaul[2], J Alonso[3] and M. L. Fdez-gubieda[3], *[1]CITIMAC, Universidad de Cantabria, Santander 39005, Spain; [2]School of Physics and Centre for Nanotechnology, University of Hyderabad, Hyderabad - 500046, India; [3]Electricidad y Electronica, Universidad del Pais Vasco, Bilbao 48080, Spain*

QM07 **Dynamics of Ni-Fe elliptical dot arrays based on CPW-FMR measurements**
Yasushi Endo, Naomi Skashita*, Yutaka Shimada and Masahiro Yamaguchi, *Graduate School of Engineering, Tohoku University, Japan*

QM08 **Structure and magnetic properties of SiO_2(Co) granular film on GaAs substrate**
Victor Ukleev[1]*, Natalya Grigoryeva[2], Ekaterina Dyadkina[1], Alexei Vorobiev[3], Dieter Lott[4], Leonid Lutsev[5], Alexandr Stognij[6], Dirk Menzel[7], Nicolay Novitskiy[6] and Sergei Grigoriev[1], *[1]Petersburg Nuclear Physics Institute, Russia; [2]Saint-Petersburg State University, Russia; [3]European Synchrotron Radiation Facility, France; [4]Helmholtz-Zentrum Geesthacht, Germany; [5]Ioffe Physical-Technical Institute, Russia;[6]Scientific and Practical Materials Research Centre of NAS of Belarus, Belarus; [7]Institut fur Physik der Kondensierten Materie, TU Braunschweig, Germany*

QM09 **Magnetic properties and structure of electrodeposited nickel on thin niobium film**
Huei-ying Ho[1]*, Wei-yan Lin[1], Shih-jia Chen[1], Hong-wen Cheng[1] and Yung Liou[2], *[1]Department of Science Education, National Taipei University of Education, Taiwan; [2]Institute of Physics, Academia Sinica, Taiwan*

QM10 **Characterization of epitaxial EuS(111) thin films on BaF2(111) and SrF2(111) substrates grown by molecular beam epitaxy**
Shinya Senba[1]*, Naoki Matsumoto[2], Mitsuhiro Jomura[2], Hironori Asada[2], Yasuhiro Fukuma[3], Tsuyoshi Koyanagi[2] and Kengo Kishimoto[2], *[1]Ube National College of Technology, Japan; [2]Graduate School of Science and Engineering, Yamaguchi University, Japan; [3]Faculty of Computer Science and Systems Engineering, Kyushu Institute of Technology, Japan*

QM11 (Withdrawn) **The cation distribution and electrical hopping in $Fe_{3-x}Co_xO_4$ (0<x<1.65) ferrite films on MgO substrate grown by molecular beam epitaxy**
Der-sheng Lee[1] and Gung Chern[2]*, *[1]Electrical Engineering Department, DA-YEH University, Chunghua, Taiwan; [2]Physics Department and SPIN Research Center, National Chung Cheng University, Chia-Yi, Taiwan*

QM12 **Magnetic circular dichroism in near-threshold two-photon photoemission**
K Hild[1], S A Nepijko[1], G Schoenhense[1], H J Elmers[1]*, T Nakagawa[2], T Yokoyama[2], K Tarafder[3] and P M Oppeneer[3] *[1]Institute of Physics, University of Mainz, Germany; [2]Institute for Molecular Science, The Graduate University for Advanced Studies (Sokendai), Japan; [3]Department of Physics and Astronomy, Uppsala University, Sweden*

QM13 **Structural and magnetic properties of pseudocubic $BaFeO_3$-d thin films**
B. Ribeiro[1]*, R. P. Borges[1], R. C. Da Silva[2], N. Franco[2], P. Ferreira[3], T. P. Gasche[4], E. Alves[2] and M. Godinho[1], *[1]CFMC /Dep. Fisica, Faculdade de Ciencias, Universidade de Lisboa, Campo Grande, 1749-016 Lisboa, Portugal; [2]Unidade de Fisica e Aceleradores, Instituto Tecnologico e Nuclear, E.N. 10, 2686-953, Portugal; [3]Departamento de Engenharia Ceramica e do Vidro, CICECO, Universidade de Aveiro, Portugal; [4]CINAMIL, Laboratorio de Fisica da Academia Militar, Lisboa, Portugal*

QM14 **Exchange anisotropy and antiferromagnetic coupling in NiFe/FeMn/Co trilayers**
Fernando Pelegrini[1]*, Marcos Antonio De Sousa[2], Willian Alayo[3] and Elisa Baggio-saitovitch[3], *[1]Universidade Federal de Goias - Instituto de Fisica, Brazil; [2]Universidade Federal de Goias, Brazil; [3]Centro Brasileiro de Pesquisas Fisicas, Brazil*

QM15 **Parallel spin wave resonance in exchange-biased NiFe/FeMn/NiFe trilayers**
Fernando Pelegrini[1]*, Valberto Pedruzi Nascimento[2], Armando Biondo[2], Edson Caetano Passamani[2] and Elisa Baggio-saitovitch[3], *[1]Instituto de Fisica, Universidade Federal de Goias, Brazil; [2]Departamento de Fisica, Universidade Federal do Espirito Santo, Brazil; [3]Centro Brasileiro de Pesquisas Fisicas, Brazil*

QM16 **Studies on local structures and magnetism at buried Fe/ Fe_3O_4 interfaces using synchrotron-radiation Mössbauer spectroscopy**
Ko Mibu[1]*, Hideto Yanagihara[2], Takaya Mitsui[3], Ryo Masuda[3], Shiori Hori[1], Atsushi Murata[1], Masaaki Tanaka[1], Kazuya Suzuki[2], Eiji Kita[2] and Makoto Seto[4], *[1]Graduate School of Engineering, Nagoya Institute of Technology, Japan; [2]Institute of Applied Physics, University of Tsukuba, Japan; [3]Japan Atomic Energy Agency, Japan; [4]Research Reactor Institute, Kyoto University, Japan*

QM17 **Dependence of in-plane magnetic anisotropy of Au/Co/Au heterostructures on thickness of Co-component layer: An FMR study**
Leszek Gladczuk, Pavlo Aleshkevych and Piotr Przysłupski, *Institute of Physics, Polish Academy of Sciences, Al. Lotnikow 32/46, PL02-668 Warsaw, Poland*

QM18 **Depth dependent chemical and magnetic information of CoFeB/MgO multilayered thin films studied by x-ray and polarized neutron reflectometry**
Ki Yeon Kim[1]*, Il Jae Shin[2], Byoung Chul Min[2], Hyeok Cheol Choi[3], Chun Yeol You[3], Jeong Soo Lee[1], Surendra Singh[4], M. R. Fitzsimmons[4] and Sungkyun Park[5], *[1]Neutron Science Division, Korea Atomic Energy Research Institute, Korea; [2]Center for Spintronics Research, Korea Institute of Science and Technology, Korea; [3]Department of Physics, Inha University, Korea; [4]Los Alamos National Laboratory, USA; [5]Department of Physics, Pusan National Laboratory, Korea*

QM19 (Withdrawn) **Depth-resolved rotational hysteresis of exchange-coupled Fe/Cr multilayers**
Tatyana Guryeva, Kai Schlage, Hans-christian Wille and Ralf Roehlsberger, *HASYLAB, Deutsches Elektronen-Synchrotron (DESY), Germany*

QM20 **Magnetization reversal behavior in exchange-coupled NiFe/FeMn/CoFe trilayers : vectorial MOKE & PNR study**
Ki Yeon Kim[1]*, Ji Wan Kim[2], Hyeok Cheol Choi[3], Anke Teichert[4], Chun Yeol You[3], Sungkyun Park[5], Sung Chul Shin[2] and Jeong Soo Lee[1], *[1]Neutron Science Division, Korea Atomic Energy Research Institute, Korea; [2]Department of Physics and Center for Nanospinics of Spintronic Materials, Korea Advanced Institute of Science and Technology, Korea; [3]Department of Physics, Inha University, Korea; [4]Helmholtz Zentrum Berlin fur Materialien und Energie, Germany; [5]Department of Physics, Pusan National Laboratory, Korea*

QM21 **Uniaxial magnetic anisotropy of $La_{0.7}Sr_{0.3}MnO_3$ film grown on step-terrace surface $SrTiO_3$ (100) substrate**
Byeong-geon Kim, Sanghoon Ki and Joonghoe Dho*, *Kyungpook National University, Korea*

QM22 **The effect of compositional ratio on the magnetocaloric effect**
Ho-sup Kim[1], Sang-soo Oh[1], Kiran Shinde[1], Seung-kyu Baik[1], Kook-chae Chung[2] and Bhavesh Bharat Sinha[2], *[1]Korea Electrotechnology Research Institute, Korea; [2]Korea Institute of Materials Science, Korea*

QM23 **Magnetocaloric effect in Ni doped Zn ferrite nanoparticles grown by the combustion method**
Kyungdong Lee, Rahul Chandrakant Kambale and Namjung Hur*, *Department of Physics, Inha university, Korea*

QM24 **Interlayer interaction In ReCoPO (La, Nd and Sm): 31P NMR Study**
M Majumder[1], K Ghoshray[1]*, A Ghoshray[1], A Pal[2] and V. P. S Awana[2], *[1]ECMP Division, Saha Institute of Nuclear Physics, Kolkata, India; [2]QPA Division, National Physical Laboratory (CSIR) Dr. K.S. Krishnan Marg, New Delhi-110012, India*

QM25 **Jahn-teller distortion and enhancement of curie temperature of $Mn_{3-x}Ni_xO_4$ films on MgO (001) by molecular beam epitaxy**
Der-sheng Lee[1], K. M. Kuo[2] and Gung Chern[2]*, *[1]Electrical Engineering Department, DA-YEH University , Chunghua, Taiwan; [2]Physics Department and SPIN Research Center, National Chung Cheng University, Chia-Yi, Taiwan*

QM26 **Anomalous switching of in-plane magnetic anisotropy of Fe and Co thin films grown on curved Pt(001) surface**
Wondong Kim[1]*, Chanyong Hwang[1] and Z.Q. Qiu[2], *[1]Korea Research Institute of Standards and Science, Korea; [2]Physics Department, University of California at Berkeley, USA*

QM27 **Magnetic-field and temperature-dependent relaxation in ferrofluids characterized with a high-Tc SQUID-based nuclear magnetic resonance spectrometer**
Hong-chang Yang[1]*, Chieh-wen Liu[2], Shu-hsien Liao[3], M.j. Chen[1], K.I. Chen[1], Hsin-hsien Chen[3], Herng-er Horng[3], L.m. Wang[1] and S.y. Yang[3], *[1]Department of physics, National Taiwan University, Taiwan; [2]Department of Physics, National Taiwan University, Taiwan; [3]Institute of Electro-Optical Science and Technology, National Taiwan Normal University, Taiwan*

QM28 **Influence of metal precursor on synthesis and magnetic properties of nanocrystalline strontium hexaferrite thin films**
S. M. Masoudpanah, S. A. Seyyed Ebrahimi* and M. Khodaei, *Center of Excellence for Magnetic Materials, University of Tehran, Iran*

QM29 **Planar Hall effects measurements of sensitive magnetization response in epitaxial Fe thin films**
Anis Faridah Md Nor[1]*, Tatsuya Matsumoto[2], Teppei Takashima[2], Terumitsu Tanaka[2] and Kimihide Matsuyama[2], *[1]Physics Department, University of Malaya, Malaysia; [2]Department of Electronics, ISEE, University of Kyushu, Japan*

QN: Soft magnetic materials II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Manuel Vazquez (Institute of Materials Science of Madrid, CSIC, Spain)

QN01 **Antiferromagnetic order and domains in $Sr_3Ir_2O_7$**
S. Boseggia[1], R. Springell[1], H. C. Walker[2], A. T. Boothroyd[3], D. Prabhakaran[3], D. Wermeille[4], L. Bouchenoire[4], S. P. Collins[5] and D. F. Mcmorrow[1], *[1]Physics and Astronomy, London Centre for Nanotechnology, UCL, United Kingdom; [2]European Synchrotron Radiation Facility, France; [3]Clarendon Laboratory, University of Oxford, United Kingdom; [4]5XMaS, UK-CRG, European Synchrotron Radiation Facility, France; [5]Diamond Light Source, Didcot, Oxfordshire, United Kingdom*

QN02 **High frequency permeability of Fe-Co and Co granular composite materials**
Teruhiro Kasagi[1]*, Aiko Tsurunaga[2], Takanori Tsutaoka[2] and Kenichi Hatakeyama[3], *[1]Tokuyama College of Technology, Japan; [2]Graduate School of Education, Hiroshima University, Japan; [3]Graduate School of Engineering, University of Hyogo, Japan*

QN03 **Magnetic carbonyl iron suspension with nanoclay additive and its magnetorheological properties**
Cheng Hai Hong, Ying Dan Liu and Hyoung Jin Choi*, *Department of Polymer Science and Engineering, Inha University, Korea*

QN04 **Hysteresis analysis: A study on the demanetization by using M-B preisach model for improved stability of numerical analysis**
Hyuk Won and Gwan Soo Park*, *School of Electrical Engineering, Pusan National University, Korea*

QN05 **A study on the design of transmitting coils and receiving coils on active magnetic snesor using finite element method**
Hye Sun Ju and Gwan Soo Park*, *Pusan National University, Korea*

QN06 **What can we learn from isothermal remanent magnetization curves on diluted nanoparticle assemblies?**
Florent Tournus*, Arnaud Hillion, Alexandre Tamion and Veronique Dupuis, *LPMCN, CNRS & Univ. Lyon 1, France*

QN07 **On real-time hysteresis compensation for magentostirictive sound transducers**
Hae Jung Park and Young-woo Park*, *Department of Mechatronics Engineering, Chungnam National Univers, Korea*

QN08 **The investigation on structural and magnetic properties of Ni-Cu-Zn-Mn-Mg-Li ferrites**
Chih-Wen Chen, Mean-June Tung and Shi-Yuan Tong, *Industrial Technology Research Institute, Taiwan*

QN09 **Magnetorheology of xanthan gum coated soft magnetic carbonyl iron microspheres and their polishing characteristics**
Seung Hyuk Kwon[1], Hyoung Jin Choi[1]*, Jung Won Lee[2], Kwang Pyo Hong[2] and Myeong Woo Cho[2], *[1]Department of Polymer Science and Engineering, Inha University, Korea; [2]Department of Mechanical Engineering, Inha University, Korea*

QN10 **Cluster-glass-like magnetic state in rare-earth intermetallic compound Tb_5Pd_2**
Andrey F. Gubkin[1]*, Pavel E. Terent'ev[2], Elena A. Sherstobitova[1] and Nikolai V. Baranov[3], *[1]Laboratory of neutron scattering, Institute of Metal Physics, Russia; [2]Laboratory of ferromagnetic alloys, Institute of Metal Physics, Russia; [3]Laboratory of micromagnetic materials, Institute of Metal Physics, Ural Federal University, Russia*

QN11 **Microwave absorption properties of polymer composites with amorphous Fe-B and Ni-Zn-Co ferrite nanoparticles**
Kazuaki Shimba*, Shozo Yuki, Nobuki Tezuka and Satoshi Sugimoto, *Materials Science, Tohoku University, Japan*

QN12 **Magnetostrictive properties of Mn substituted sintered cobalt ferrite derived from nanocrystalline materials**
Khaja Mohaideen Kamal and P A Joy*, *Materials chemistry division, National Chemical Laboratory, India*

QN13 **Magnetic properties of Co_2Z ferrite densified through high BET powders**
Ji Yeon Song and Young Ho Han*, *Materials Engineering, Sungkyunkwan University, Korea*

QN14 Magnetic properties of Cr^{3+} substituted Mg-Cd ferrites
S A Masti[1]*, A. K Sharma[2] and P. N. Vasambekar[3], *[1]Physics, Dr. Ghali College, Gadhinglaj, India; [2]Physics, Shivaji University, Kolhapur, India; [3]Electronics, Shivaji University, Kolhapur, India*

QN15 Docking speaker based on magnetostrictive sound transducer
Han Sam Kang, Jin Hong Min and Young Woo Park*, *Department of Mechatronics Engineering, Chungnam National University, Korea*

QN16 (Withdrawn) Characteristics of composite materials $Ba_{0.5}Sr_{0.5}Fe_{11.7}Mn_{0.15}Ti_{0.15}O_{19}/La_{0.7}Ba_{0.3}MnO_3$ as a microwave absorber
V. Vekky R. Repi* and Azwar Manaf, *Graduate Program of Materials Science Study, Universitas Indonesia, Indonesia*

QN17 The effect of shape anisotropy to acoustical performance of magnetostrictive sound transducer
Hae Jung Park, Young Woo Park* and Ok Kyun Oh, *Department of Mechatronics Engineering, Chungnam National Univers, Korea*

QN18 Size effects on magnetic properties of nanocrystalline $Sr_2CuCo_2Fe_{24}O_{41}$ prepared by Co-precipitation method
K Praveena and K Sadhana, *Materials Research Centre, Indian Institute of Science, India*

QN19 Structural and magnetic properties of $Mn_2Rh_{1-x}Co_xSn$ Heusler alloys
Olga Meshcheriakova[1], Jurgen Winterlik[1], Gerhard H. Fecher[2], Benjamin Balke[1] and Claudia Felser[3], *[1]Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg University Mainz, Germany; [2]Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg University Mainz, Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; [3]Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg University Mainz, Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*

QN20 Magnetic properties of $Mn_2Sb_{1-x}Ge_x$ ($0.05 \le x \le 0.2$) in high magnetic fields
Daisuke Shimada[1]*, Hiroki Orihashi[1], Daisuke Mitsunaga[1], Kohki Takahashi[2], Masahiko Hiroi[1], Masakazu Ito[1], Kazuyuki Matsubayashi[3], Yoshiya Uwatoko[3] and Keiichi Koyama[1], *[1]Kagoshima University, Japan; [2]Tohoku University, Japan; [3]Tokyo University, Japan*

QN21 Microwave magnetic properties of FeNi films prepared by electrodeposition
Dong Zhou[1], Wei Li[1], Minggang Zhu[1]*, Yanfeng Li[1], Wei Sun[1] and Fashen Li[2], *[1]Central Iron & Steel Research Institute, China; [2]Lanzhou University, China*

QN22 Preparation and characterization of ferromagnetic fluid and magneto-rheological fluid
Tae Min Hong[1], Jong Hee Kim[2], Cheolgi Kim[3] and Seung Goo Lee[1]*, *[1]Advanced Organic Materials & Textile System Engineering, Chungnam National University, Korea; [2]Research Center for Advanced Magnetic Material, Chungnam National University, Korea; [3]Materials Science & Engineering, Chungnam National University, Korea*

QN23 Microwave magnetic and absorbing properties of the planar-anisotropy $Ce_2Fe_{17}N_{3-\alpha}$ powder composite
Jianqiang Wei, Wenliang Zuo, Tao Wang and Fashen Li*, *Key Laboratory of Magnetism and Magnetic Materials of Ministry of Education, Lanzhou University, China*

QN24 Co_2Y-NiCuZn ferrite composites for high frequency applications
Ruei-lin Lin and Hsing-i Hsiang*, *Resources Engineering, National Cheng Kung University, Taiwan*

QN25 A novel low-temperature-fired multifunctional varistor-magnetic NiCuZn ferrites
Wei-hung Hsu, Hsing-i Hsiang* and Li-then Mei, *Resources Engineering, National Cheng Kung University, Taiwan*

QN26 Synthesis and magnetic properties of transition metal ferrite nanoparticles
Tejabhiram Yadavalli[1], Shivaraman Ramaswamy[1], Gopalakrishnan Chandrasekaran[1] and Ramasamy R[2], *[1]Nanotechnology Research Centre, SRM University, India; [2]School of Pharmacy, SRM University, India*

QO: Novel magnetic materials and devices II

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairpersons: Gendo Omii (Kurume Institute of Technology, Japan)
Jesus Rodriguez Fernandez (Universidad de Cantabria, Spain)

QO01 High room temperature power factor (Z) in K_xRhO_2
Nirpendra Singh, Yasir Saeed and Udo Schwingenschlog|*, *King Abdullah University Science and Technology Thuwal, Saudi Arabia*

QO02 Optimized Halbach array based magnet systems for Lorentz force velocimetry purposes
Michael Werner[1]* and Bernd Halbedel[2], *[1]University of Technology Ilmenau, Germany; [2]Department of Inorganic-Nonmetallic Materials, University of Technology Ilmenau, Germany*

QO03 Growth and characterization of $SmFe_6Ge_6$ single crystals
Rodrigo S. Monteiro, Lucas K. Piquini, E. Thizay Magnavita, Raquel A. Ribeiro and Marcos A. Avila*, *Centro de Ciencias Naturais e Humanas, Universidade Federal do ABC, Brazil*

QO04 Anomalous magnetic and related properties of Nd_5Ge_3
Bibekananda Maji[1]*, K G Suresh[1] and A K Nigam[2], *[1]Physics, Indian Institute of Technology Bombay, Mumbai-400076, India; [2]Tata Institute of Fundamental Research, Homi Bhabha Road, Mumbai- 400005, India*

QO05 Magnonic meta- and meta-meta-materials
Rostislav V. Mikhaylovskiy[1]*, Michal Mruczkiewicz[2], Maciej Krawczyk[2] and Volodymyr V. Kruglyak[1], *[1]School of Physics, University of Exeter, United Kingdom; [2]Faculty of Physics, Adam Mickiewicz University, Poznan, Poland*

QO06 Understanding the nature of magnetic phase transition in relevance to magnetic refrigeration
S M Yusuf*, *Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai 400085, India*

QO07 Specific heat study on successive magnetic transitions in αDy_2S_3 single crystal under magnetic fields
Shuji Ebisu*, Yuji Ushiki and Shin Takahashi, *Division of Applied Sciences, Muroran Institute of Technology, Japan*

QO08 Magneto-inductive wave in periodic chains of ferrite cores and chip capacitors
Yongmin Kim and Kwang-ho Shin*, *Dept. of Information and Communication Engineering, Kyungsung University, Korea*

QO09 Large refrigerant capacity in $Ni_{2.9}Co_{0.1}MnIn$ type-Heusler alloy
Catalina Salazar Mejia[1], Angelo M Gomes[1], Ana Lima Sharma[2] and Fivos R Drymiotis[3], *[1]Instituto de Fisica, Universidade Federal do Rio de Janeiro, Brazil; [2]Materials Physics Department, Sandia National Laboratory, Livermore, CA, USA; [3]Department of Physics and Astronomy, Clemson University, Clemson, SC, USA*

QO10 Reduction of weak localization strength on controlling oxygen defects by ex-situ annealing
Seong-min Choo[1], Kyujoon Lee[1], Sungmin Park[1], Gwang-seo Park[1], Jungwon Jang[2], Jinhee Kim[2] and Myung-hwa Jung[1]*, *[1]Department of Physics, Sogang university, Korea; [2]Korea Research Institute Standard Science, Korea*

QO11 Reconstruction of cubic rs-ZnO on MgO (200) substrate through 100 plane of w-Zn for transparent electronic application
Chungman Kim[1], Santosh M Bobade[1], Seong-min Choo[1], Suhyun Kim[1], Kyung Ho Shin[2] and Myung-haw Jung[1]* *[1]Sogang University, Korea; [2]Korea Institute of Science and Technology, Seoul, Korea*

QO12 Magnetic cooling machine prototype based on cold rolled Gd foil
Sergey V. Taskaev*, Vasiliy D. Buchelnikov, Victor V. Nikolenko, Ivan A. Chernets and Andrey N. Denisovsky, *Physics department, Chelyabinsk State University, Russia*

QO13 Research on the orbital state of IrO_2 with resonant x-ray scattering method
Yasuyuki Hirata[1], Kenya Ohgushi[1], Junich Yamaura[1], Hiroyuki Ohsumi[2], Soshi Takeshita[2] and Takahisa Arima[3], *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]RIKEN SPring-8, Japan; [3]Department of Advanced Materials Science, University of Tokyo, Japan*

QO14 Investigation of magnetic-field tunable properties of magnetorheological elastomers
Nikolai Perov[1]*, Anna Semisalova[1], Elena Yu Kramarenko[1], Alexey R Khokhlov[1] and Gennady V Stepanov[2], *[1]Lomonosov Moscow State University, Russia; [2]State Research Institute for Chemistry and Technology of Organoelement Compounds, Moscow, Russia*

QO15 Disagreement between modification methods for magnetism-absorbing agent
Wu Chao, Lv Xuliang*, Zeng Zhaoyang, Wen Xiaodi and Wen Liuqiang , *PLA University of Science and Technology, China*

QO16 Ordered magnetic arrays of cobalt SMM: properties and the relationship with crystal symmetry and SMM environment
Milagros Tomas[1], Cristina Saenz De Pipaon[2], Elena Forcen-vazquez[2], Isabel Mayoral[2], Larry Falvello[3], Javier Campo[2] and Fernando Palacio[4]*, *[1]Instituto de Sintesis Quimica y Catalisis Homogenea (ISQCH), Consejo Superior de Investigaciones Cientificas and University of Zaragoza, Spain; [2]Instituto de Ciencia de Materiales de Aragon, Consejo Superior de Investigaciones Cientificas and University of Zaragoza, Spain; [3]Departamento de Quimica Inorganica and Instituto de Ciencia de Materiales de Aragon, Consejo Superior de Investigaciones Cientificas and University of Zaragoza, Spain; [4]Instituto de Ciencia de Materiales de Aragon (ICMA), Consejo Superior de Investigaciones Cientificas and University of Zaragoza, Spain*

QO17 Enhancement of the refrigerant capacity in $Gd_{65}Fe_{20}Al_{10}B_5$ alloys by partial crystallization of melt-spun amorphous ribbons
Jozef Marcin[1], Zbigniew Sniadecki[2], Jozef Kovac[1], Peter Svec[3], Bogdan Idzikowski[2] and Ivan Skorvanek[1]*, *[1]Institute of Experimental Physics SAS, Kosice, Slovak; [2]Institute of Molecular Physics PAS, Poznan, Poland; [3]Institute of Physics SAS, Bratislava, Slovak*

QO18 Chemical pressure effects on half-metallic properties in single crystals of A_2FeMoO_6 (A = Ca, Sr, and Ba)
Akira Isayama* and Takao Sasagawa, *Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*

QO19 Magnetic label field collector of biochip sensor
Sunjong Oh, Brajalal Sinha, Jaein Lim and Chelgi Kim*, *Department of Materials Science and Engineering, Center for NanoBioengineering and Spintronics, Chungnam National University, Korea*

QO20 Cogging torque cancellation technique for dual rotor type motor using adjustment between outer and inner rotor magnet angle
Tae Won Jeong[1], Hyun Rok Cha[1]*, Dae Yeong Im[1], Kwang Heon Kim[2] and Hyoung Uk Nam[1], *[1]Automotive components R&D group, korea institute of industrial technology, Korea; [2]Department of Electrical Engineering University of the Chonnam, Korea*

QO21 A broadband circuit analog absorber based on printed dipole antenna
Li Xiaopeng[1], Cui Chuan'an[1], Lv Xuliang[1]* and Lin Shaofeng[2], *[1]Engineering Institute of Corps of Engineers,PLA University of Science and Technology, China; [2]Xi'an Communication Institute, China*

QO22 Effect of oxygen pressure to magnetism and transport properties of epitaxial Fe_3O_4 grown by molecular beam epitaxy
Dang Duc Dung[1], Wuwei Feng[2], Duong Van Thiet[2], Duong Anh Tuan[2] and Sunglae Cho[2]*, *[1]Department of General Physics, School of Engineering Physics,Ha Noi University of Science and Technology,1 Dai Co Viet road, Ha Noi, Viet Nam; [2]Department of Physics, University of Ulsan, Ulsan 680-749, Korea*

QO23 Magnetism and transport properties of epitaxial Mn_5Ge_3 thin films on GaAs(001) and GaSb(001)
Dang Duc Dung[1], Doji Odkhuu[2] and Sunglae Cho[2]*, *[1]Department of General Physics, School of Engineering Physics, Ha Noi University of Science and Technology,1 Dai Co Viet road,Ha Noi, Viet Nam; [2]Department of Physics, University of Ulsan, Ulsan 680-749, Korea*

QO24 Current-driven domain wall motion in artificial magnetic domain structures
Ke Wang[1], Murali Krishnan Hari[1]*, Simon Bending[1], Erhan Arac[2], Del Atkinson[2], Serban Lepadatu[3], J S Claydon[3] and Chris Marrows[3], *[1]Department of Physics, University of Bath, United Kingdom; [2]Department of Physics, University of Durham, United Kingdom; [3]School of Physics and Astronomy, University of Leeds, United Kingdom*

QO25 The cellular uptake mechanism of SPIONs: an in-vitro study
Yasmin Khan[1] and Radha Srinivasan[2]*, *[1]Department of Life Sciences, Sophia College, Mumbai, India; [2]Department of Physics, University of Mumbai, India*

QO26 Theoretical and experimental studies of valence states in Fe-Mo compounds
Francisco Estrada[1]*, Reginaldo Mondragon[1], Humberto Noverola[2], Jaime Raul Suarez[3], Martha Teresita Ochoa[1], Francisco Espinosa[1], Lorena Alvarez[1], Ricardo Morales[4], Jose Lemus[4], Oracio Navarro[2] and Michel Avignon[3], *[1]Centro de Investigacion en Materiales Avanzados, S. C, Mexico; [2]Instituto de Investigaciones en Materiales, Universidad Nacional Autonoma de Mexico, Mexico; [3]Institut Neel, CNRS and Universite Joseph Fourier, France; [4]Instituto de Investigaciones Metalurgicas, UMSNH, Mexico*

QO27 Structural modifications in magnetic MWCNT by 100 MeV SHI irradiations
Sanjeev Gautam[1], Keun Hwa Chae[1], Jong Han Song[1], Saji Augstine[2], J.k. Kang[2] and K. Asokan[3], *[1]Advanced Analysis Center, Korea Institute of Science and Technology (KIST), Korea; [2]Material Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Korea; [3]Material Science Center, Inter-University Accelerator Center, New Delhi, India*

QO28 Magnetic and magneto-transport properties of $(Mn_{0.8}, Zn_{0.2})_{1-x}Ga_xFe_2O_4$ ferrites
Hyo-jin Kim and Sang-im Yoo*, *Department of Materials Science and Engineering, Seoul National University, Korea*

QP: Magnetic recording and memories

July 10 (Tue), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Yukiko Takahashi (NIMS, Japan)

QP01 Magnetic coupling at the CoO/Ni interface
Sergiy Grytsyuk*, Fabrizio Cossu and Udo Schwingenschlogl, *Physical Sciences and Engineering, King Abdullah University of Science & Technology, Saudi Arabia*

QP02 Electronic, structural, and magnetic properties of O and Py deficient CoO/Py interfaces.
Sergiy Grytsyuk* and Udo Schwingenschlogl, *Physical Sciences and Engineering, King Abdullah University of Science & Technology, Saudi Arabia*

QP03 Effect of the external fields on SpinRAM switching time
Mitsuhiro Shiomi* and Yoshinobu Nakatani, *Univ. of Electro- Communications, Japan*

QP04 A study on the perpendicular toggle-MRAM system by using new combined hysteresis method for high Gb/Chip
Hyuk Won and Gwan Soo Park*, *School of Electrical Engineering, Pusan National University, Korea*

QP05 Room temperature exchange bias in the multiferroic $BiFe_{0.8}Mn_{0.2}O_3$ nanoparticles with a core-shell structure
S M Yusuf* and P K Manna, *Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai 400085, India*

QP06 Magnetic and Transport Properties of $Mn_{3-x}Ga$/MgO/$Mn_{3-x}Ga$ Magnetic Tunnel Junctions: A First-Principles Study
Zhaoqiang Bai, Yongqing Cai, Lei Shen, Guchang Han and Yuanping Feng*, *Physics, National University of Singapore, Singapore*

QP07 Concomitant memory effect in CrO_2/Cr_2O_3 core-shell nanorods
Ashish Chhaganlal Gandhi and Sheng Yun Wu*, *Department of Physics, National Dong Hwa University, Taiwan*

QP08 High resolution probes for magnetic force microscope
Xiaoxi Liu*, Shinsaku Isomura and Akimitsu Morisako, *Department of Information Engineering, Shinshu University, Japan*

QP09 Selective magnetization switching by microwave assistance for layered magnetic pillar
Terumitsu Tanaka[1]*, Yuto Otsuka[1], Yoshitoki Furomoto[1], Kimihide Matsuyama[1] and Yukio Nozaki[2], *[1]ISEE, Kyushu University, Japan; [2]Department of Physics, Keio University, Japan*

QP10 Thermal effect in microwave assisted magnetization reversal
Yoshitoki Furomoto, Yuto Otsuka, Terumitsu Tanaka* and Kimihide Matsuyama, *ISEE, Kyushu University, Japan*

QP11 Stable magnetization switching with microwave assistance for exchange coupled composite grain
Terumitsu Tanaka*, Yoshitoki Furomoto, Yuto Otsuka and Kimihide Matsuyama, *ISEE, Kyushu University, Japan*

QP12 Low-temperature epitaxial growth of FePt on glass substrates for ultrahigh magnetic recording densities
Thanassis Speliotis[1]*, George Giannopoulos[1] and Dimitris G Niarchos[2], *[1]Institute of Materials Science, NCSR Demokritos, Greece; [2]Institute of Materials Science, NCSR Demokritos, Greece*

QP13 Controlling nanostructure in FePt films: Co-sputtering of FePt and C or SiO_2
George Giannopoulos*, Thanassis Speliotis and Dimitris G Niarchos, *Institute of Materials Science, NCSR Demokritos, Greece*

QP14 Retention time under currents and magnetic fields in a CoFeB/MgO perpendicular magnetic tunnel junction
Michihiko Yamanouchi*, Hideo Sato, Katsuya Miura, Shoji Ikeda, Fumihiro Matsukura and Hideo Ohno, *Center for Spintronics Integrated Systems, Tohoku University, Japan*

QP15 Thermal diffusion in magneto-optic collinear volumetric hologram memory
Seungmin Baek, Hiroyuki Sakurai, Pang Boey Lim and Mitsuteru Inoue, *Toyohashi University of Technology, Japan*

QP16 Resolution of magnetic garnet films for magneto-optic collinear volumetric hologram memory
Seungmin Baek, Hiroyuki Sakurai, Naoto Sagara, Pang Boey Lim and Mitsuteru Inoue, *Toyohashi University of Technology, Japan*

QP17 Room temperature ordering perpendicular magnetic anisotropy L11 CoPtCu thin film on glass substrate
Chiuan-fa Huang[1], Long-jie Li[1], An-cheng Sun[1]*, Fu-te Yuan[2], Jen-hwa Hsu[2], S. N. Hsiao[3] and H. Y. Lee[3], *[1]Department of Chemical Engineering & Materials Science, Yuan-Ze University, Taiwan; [2]Department of Physics, National Taiwan University, Taiwan; [3]National Synchrotron Radiation Research Center (NSRRC), Taiwan*

QP18 Magnetic anisotropy and chemical ordering in Fe-Pt films prepared by low-temperature growth technique
Nyun Jong Lee[1], Jae Young Ahn[1], Yu Jeong Bae[1], Dominique Eyidi[2]*, Anny Michel[2]* and Tae Hee Kim[1]*, *[1]Department of Physics, Ewha Womans University, Korea; [2]Departement de Physique et Mecanique des Materiaux, Institut Pprime, UPR 3346, CNRS-Universite de Poitiers-ENSMA, F86962 Futuroscope-Chasseneuil cedex, France*

QP19 Nanoscale ion beam etching process for reducing damage and leakage path of magnetic tunnel junction
Daehong Kim[1], Bongho Kim[1], Sungwoo Chun[1], Hyungyu Kim[1], Seonjun Choi[1] and Seung-beck Lee[2]*, *[1]Department of Electronic Engineering, Hanyang University, Seoul, Korea; [2]Institute of Nano Science and Technology, Hanyang University, Seoul, Korea*

QP20 A new planer patterned media with anti-ferro / ferro transformation
Hiroaki Ono and Hiroyuki Awano, *Toyota Technological Institute Information Storage Material Lab., Japan*

QP21 Topology optimization of perpendicular magnetic recording head considering magnetic saturation effect
Park Soon Ok*, *Yonsei University Graduate school, Korea*

QP22 The effect of capped layer thickness on switching behavior in coupled granular/continuous media
Weimin Li[1], Jun Ding[1]* and Jianzhong Shi[2], *[1]Department of materials science and engineering, National University of Singapore, Singapore; [2]Data Storage Institute, Agency for Science, Technology and Research (A*STAR), Singapore*

QP23 The effect of magnetic field on FePt nanoparticles during annealing process
A. Khajehnezhad[1], S. A. Sebt[1], R. S. Dariani[2] and M. Akhavan[3]*, *[1]Physics Research Center, Science and Research Branch, Islamic Azad University, Tehran, Iran, Iran; [2]Physics, Alzahra University, Tehran, Iran; [3]Physics, Sharif University of Technology, Iran*

QP24 Novel soft lithography technique for fabrication of Ni nanodots for use as bit patterned media
Shivaraman Ramaswamy, *Nanotechnology Research Center, SRM University, India*

RA: Multiferroics III

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Chan-Ho Yang (KAIST, Korea)

RA01 Magnetic resonance and ferroelectricity of $BaTi_{1-x}Fe_xO_3$
Dianta Ginting[1], N. V. Dang[2], V. D. Lam[2], S. C. Yu[1] and T. L. Phan[1]*, *[1]Phyisch, Bk 21, chungbuk national university, Korea; [2]Institute of Materials Science, Vietnamese Academy of Science and Technology, Hanoi, Viet Nam*

RA02 Growth of high pure $BiFeO_3$ single crystals
Kai Feng[1], Jun Lu[2]* and Yicheng Wu[1], *[1]Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing 100190, China; [2]State Key Laboratory of Magnetism, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing 100190, China*

RA03 Structural, electrical and magnetic properties of La-doped $BiFeO_3$ ceramics.
M. Roy, S. Jangid, S. K. Barbar and Indu Bala Thakur, *Department of Physics, M. L. Sukhadia University, Udaipur, India*

RA04 In situ X-ray absorption spectroscopy study on $BaTiO_3$
J. S. Lee* and C. C. Kao, *SSRL, SLAC National Accelerator Laboratory, USA*

RA05 Chiral skyrmions and magnetic bubbles in multiferroic materials
Xiuzhen Yu[1]*, Y. Tokunaga[1], S. Seki[2], Y. Kaneko[3], S. Ishiwata[2], M. Mostovoy[4], N. Nagaosa[5] and Y. Tokura[6], *[1]The Institute of Physical and Chemical Research, Japan; [2]University of Tokyo, Japan; [3]Japan Science and Technology Agency, Japan; [4]University of Groningen, Netherlands; [5]University of Tokyo, The Institute of Physical and Chemical Research, Japan; [6]University of Tokyo, The Institute of Physical and Chemical Research, JST, Japan*

RA06 Studies on $Bi_{1-x}La_xFeO_3$ crystals in pulsed high magnetic fields
Masashi Tokunaga[1], Mitsuru Akaki[2], Hideki Kuwahara[2], Kengo Oka[1] and Takumi Kihara[1], *[1]The Institute for Solid State Physics, The University of Tokyo, Japan; [2]Department of Physics, Sophia University, Japan*

RA07 Enhanced magnetic properties of Ni-doped $BiFeO_3$ compounds
Y. J. Yoo[1], J. S. Park[1], J. H. Kang[2], J. Kim[3], B. W. Lee[3], M. S. Seo[4] and Y. P. Lee[1]*, *[1]Physics, Hanyang University, Korea; [2]Nano & Electronic Physics, Kookmin University, Korea; [3]Physics, Hankuk University of Foreign Studies, Korea; [4]Division of Materials Science, Korea Basic Science Institute, Korea*

RA08 Magnetic modulation of electrical impedance in Bi-doped $La_{0.7}Sr_{0.3}MnO_3$
Sujit Kumar Barik, M Aparnadevi and Ramanathan Mahendiran*, *Physics, National University of Singapore, Singapore*

RA09 Theoretical study of PCAR measurement with d-wave superconductors.
Hiroyuki Ohtori[1] and Hiroshi Imamura[2]*, *[1]Univ. of Tsukuba, NRI-AIST, Japan; [2]NRI-AIST, Japan*

RA10 T_C Evolution of bulk and optical spectra of nanocolloidal Fe-doped manganate $CaMn_{1-x}Fe_xO_3$ (x = 0, 0.01, 0.03, 0.05)
Huyen-yen Duc Pham, Duc-thang Pham, Nam-nhat Hoang* and Duc-tho Nguyen, *Faculty of Technical Physics and Nanotechnology, Vietnam National University, University of Engineering and Technology, Viet Nam*

RA11 Evidence of magnetic phase separation in $LuFe_2O_4$
Julie Bourgeois[1], Gilles Andre[2], Sylvain Petit[2], Julien Robert[2], Maria Poienar[3], Jerome Rouquette[3], Erik Elkaim[4], Maryvonne Hervieu[1], Christine Martin[1], Antoine Maignan[1] and Francoise Damay[2], *[1]Laboratoire CRISMAT, CNRS UMR 6508, 6 bvd Marechal Juin, 14050 CAEN CEDEX, France; [2]Laboratoire Leon Brillouin, CEA-CNRS UMR 12, 91191 GIF-SUR-YVETTE CEDEX, France; [3]Institut Charles Gerhardt, UMR CNRS 5253, Place Eugene Bataillon, cc1503, 34095 MONTPELLIER CEDEX 5, France; [4]Synchrotron Soleil, L'Orme des Merisiers, Saint-Aubin BP 48, 91192 GIF-SUR-YVETTE CEDEX, France*

RA12 Magnetoelectric effect in mechanically mediated structure of $TbFe_2$, $Pb(Zr,Ti)O_3$, and nonmagnetic flakes
Yin-gang Wang* and Ke Bi, *Nanjing University of Aeronautics and Astronautics, China*

RA13 Enhancement of magnetization in sulfur doped $BiFeO_3$
Chunlong Shi, Jun Du and Xiaoshan Wu*, *Physics, Nanjing University, China*

RA14 Effects of chlorine and fluorine on the structure and magnetism in $BiFeO_3$
Kaige Gao, Chunlong Shi and Xiaoshan Wu*, *Physics, Nanjing University, China*

RA15 Investigation of electricity coercive behavior of LSFMTO system using ultrasonic mixing method
Erfan Handoko[1]*, Azwar Manaf[2] and Dede Djuhana[2], *[1]Physics, Department of Physics, State University of Jakarta, Indonesia; [2]Physics, Department of Physics, University of Indonesia, Indonesia*

RA16 Enhancement of multiferroic properties of solid state prepared La doped $BiFeO_3$
Suresh P and Srinath S*, *School of Physics, University of Hyderabad, India*

RA17 Magnetostructural coupling at the metal-insulator transition in $YBaCo_2O_{5.5}$ as seen by synchrotron x-ray diffraction and absorption
Jessica Padilla-pantoja, Javier Herrero-martin, Carlos Frontera and Jose Luis Garcia-munoz, *Institut de Ciencia de Materials de Barcelona, ICMAB-CSIC, Spain*

RA18 Magnetic field dependence of dielectric properties in $LuFe_2O_4$
Takashi Kambe*, Yukimasa Fukada, Tomoko Nagata and Naoshi Ikeda, *Physics, Okayama university, Japan*

RA19 (Withdrawn) Pressure studies of $LaAgSb_2$ utilizing new integrated pressure cell
Sven Friedemann[1]*, Zhou Feng[1], Takao Ebihara[2], Christophe Thessieu[3] and F Malte Grosche[1], *[1]Cavendish Laboratory, University of Cambridge, United Kingdom; [2]Department of Physics, Shizuoka University, Shizuoka 422-8529, Japan; [3]easyLab Technologies Ltd., Earley Gate, Whiteknights Road, Reading, RG6 6BZ, United Kingdom*

RA20 Crystal & Magnetic structure studies of doped $BiFeO_3$ multiferroic compound
Seongsu Lee, *Neutron Science Division, KAERI, Korea*

RA21 The analysis of structure, magnetic and ferroelectric properties of $Ba_{1-x}Bi_xTi_{0.95}Fe_{0.05}O_3$
Widi Yansen[1], Kadek Juliana Parwanta[1], Jaeyeong Kim[1], Min Gyu Kang[2], Chong Yun Kang[2] and Bo Wha Lee[1]* *[1]Physics, Hankuk University of Foreign Studies, Korea; [2]Physics, Korea Institute of Science and Technology, Korea*

RA22 Spin dynamics of multiferroic $BiFeO_3$ single crystal
Jaehong Jeong[1], E. A. Goremychkin[2], T. Guidi[2], K. Nakajima[3], Gun Sang Jeon[4], Shin-ae Kim[5], S. Furukawa[6], Yong Baek Kim[6], Seongsu Lee[5], V. Kiryukhin[7], S-w. Cheong[7] and Je-geun Park[1]*, *[1]FPRD Department of Physics & Astronomy, Center for Strongly Correlated Materials Research, Seoul National University, Seoul 151-747, Korea; [2]ISIS Facility, STFC Rutherford Appleton Laboratory, Oxfordshire OX11 0QX, United Kingdom; [3]Neutron Science Section, MLF Division, J-PARC Center, Tokai, Ibaraki 319-1106, Japan; [4]Department of Physics, Ewha Womans University, Seoul 120-750, Korea; [5]Neutron Science Division, Korea Atomic Energy Research Institute, Daejeon 305-353, Korea; [6]Department of Physics, University of Toronto, Toronto M5S 1A7, Canada; [7]Rutgers Center for Emergent Materials and Department of Physics and Astronomy, Rutgers University, Piscataway NJ 08854, USA*

RA23 Magnetic and dielectric properties of the single crystals $Sm_{1-x}Ho_xFe_3(BO_3)_4$ and $Sm_{1-x}La_xFe_3(BO_3)_4$
Evgeniy Eremin*, Irina Gudim, Vladislav Temerov and Alexander Eremin, *Kirensky Institute of Physics SB RAS, Russia*

RA24 Far infrared spectroscopy of $EuFe_3(BO_3)_4$
Kirill N. Boldyrev[1]*, Taras N. Stanislavchuk[2], Marina N. Popova[1] and Sergey A. Klimin[1], *[1]Solid State Spectroscopy, Institute of spectroscopy RAS, Russia; [2]Physics, New Jersey Institute of Technology, USA*

RA25 Electric polarization, toroidal moments, spin chirality, spin canting at avoided level crossing induced by Dzyaloshinsky-Moriya interaction in V_3 nanomultiferroics in transverse magnetic field
Moisey Belinsky, *School of Chemistry, Tel-Aviv University, Tel Aviv, Israel*

RA26 Mössbauer studies of bismuth ferrite
Seungkyu Han, Yong Hui Li, Minseon Kim, Sam Jin Kim and Chul Sung Kim*, *Physics, Kookmin University, Korea*

RA27 Synthesis and electrical characterization of $Bi_{1-x}Y_xFeO_3$ ceramics
Vikash Singh*, Manoj Kumar and R. K. Dwivedi, *Physics & materials science & engg., Jaypee institute of information technology, India*

RA28 Lattice engineering on transition metal oxide thin film
Chang Uk Jung*, *Department of Physics, Hankuk University of Foreign Studies, Korea*

RB: Superconductivity III

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Ji Hoon Shim (POSTECH, Korea)

RB01 Structural and magnetic properties of doped iron oxo-selenides
Sven Landsgesell[1], Karel Prokes[1] and Dimitri Argyriou[2], *[1]M-I1, Helmholtz-Zentrum Berlin, Germany; [2]European Spallation Source, Sweden*

RB02 Phase separation of antiferromagnetism and superconductivity in $Rb_xFe_{2-y}Se_2$ observed by Rb NMR
Yoshiaki Kobayashi[1]*, Shunsuke Saiki[1], Shouhei Kototani[1], Masayuki Itoh[1] and Masatoshi Sato[2], *[1]Department of Physics, Graduate School of Science, Nagoya University, Japan; [2]Research Center For Neutron Science And Technology, CROSS, Japan*

RB03 Superconductivity of $EuFe_2As_2$ under high pressure
Shugo Ikeda and Hisao Kobayashi, *Graduate School of Material Science, University of Hyogo, Japan*

RB04 **Superconductivity in 4d, 5d pnictides**
Tomohiro Takayama[1]*, Daigorou Hirai[1], Keisuke Kuwano[1] and Hidenori Takagi[2], *[1]Department of Advanced Materials, University of Tokyo, Japan; [2]Department of Physics, University of Tokyo, Japan*

RB05 **Elastic softening and electric quadrupole in iron pnictide superconductor $Ba(Fe_{1-x}Co_x)_2As_2$**
Ryosuke Kurihara[1], Koji Araki[1], Keisuke Mitsumoto[1], Mitsuhiro Akatsu[1], Yuichi Nemoto[2], Terutaka Goto[2], Yoshiaki Kobayashi[3] and Masatoshi Sato[4], *[1]Graduate School of Science and Technology, Niigata University, Japan; [2]Graduate School of Science and Technology, Niigata University, JST-TRIP, Japan; [3]Department of Physics, Nagoya University, JST-TRIP, Japan; [4]Department of Physics, Nagoya University, CROSS, JST-TRIP, Japan*

RB06 **Concentration dependence of magnetic and transport characteristics in $EuFe_2As_{2-x}P_x$ single crystals**
Takanari Kashiwagi*, Takuya Ishikawa, Tomoki Goya, Youhei Jono, Akihiko Nozawa, Kasumi Tashima and Kazuo Kadowaki, *Univ. of Tsukuba, WPI-MANA, JST-CREST, Japan*

RB07 **Resonance-like response in antiferromagnetically ordered $Fe_{1.02}Te_{0.95}Se_{0.05}$, studied by polarized inelastic neutron scattering**
Karel Prokes[1]*, Arno Hiess[2], Wei Bao[3], Sven Landsgesell[1], Elisa Wheeler[4] and Dimitri Argyriou[2], *[1]M-I1, Helmholtz Zentrum Berlin, Germany; [2]European Spallation Source ESS AB, 22100 Lund, Sweden; [3]Renmin University of China, 100872 Beijing, China; [4]M-I1, Institut Laue-Langevin, 38042 Grenoble Cedex, France*

RB08 **Influence of filament diameter on superconducting properties of MgB_2 multi-core wires**
Michael Reissner[1]*, Lukas Bulla[1], I Husek[2], T Melisek[2] and P Kovac[2], *[1]Institute of Solid State Physics, Vienna Universtity of Technology, Austria; [2]Institute of Electrical Engineering, Slovak Academy of Sciences, Slovak*

RB09 **Kinetic energy density of cooper pairs in Sr doped $YBa_2Cu_3O_{7-\delta}$ single crystals**
Ana Paula Aguiar De Mendonca[1]*, Rovan Fernandes Lopes[1], Valdemar Das Neves Vieira[1], Fabio Teixeira Dias[1], Douglas Langie Da Silva[1], Paulo Pureur[2], Jacob Schaf[3], Mauro Melchiades Doria[4] and Frederik Wolff-fabris[5], *[1]Universidade Federal de Pelotas, Brazil; [2]Universidade Federal do Rio Grande do Sul, Brazil; [3]Universidade Federal do Rio Grande so Sul, Brazil; [4]Universidade Federal do Rio de Janeiro, Brazil; [5]HZ Dresden-Rossendorf, Germany*

RB10 **Interplay between superconductivity and antiferromagnetism in $BaFe_{2-x}Ni_xAs_2$ single crystals studied by 57Fe Mossbauer spectroscopy**
Julian Andres Munevar Cagigas[1], Hans Micklitz[2], Chenglin Zhang[3], Hui Quian Luo[4], Pengcheng Dai[5] and Elisa Baggio-saitovitch[1]*, *[1]Brazilian Center for Research in Physics, Brazil; [2]Centro Brasileiro de Pesquisas Fisicas, Brazil; [3]Department of Physics, University of Tennessee, USA; [4]Beijing National Laboratory for Condensed Matter Physics, China; [5]Department of Physics and Astronomy, University of Tennessee, USA*

RB11 **Magnetism in superconducting $Ba_{0.78}K_{.22}Fe_2As_2$ and $EuFe_2As_{1.4}P_{0.6}$ single crystals studied by Mossbauer spectroscopy**
Elisa Baggio-saitovitch[1], Julian Munevar[1], Hans Micklitz[1], Genfu Chen[2], Chenglin Zhang[3], Huiqian Luo[4] and Pengcheng Dai[5], *[1]Brazilian Center for Research in Physics, Brazil; [2]Renmin University of China, China; [3]Department of Physics and Astronomy, University of Tennessee, USA; [4]Beijing National Laboratory for Condensed Matter Physics, China; [5]Department of Physics and Astronomy, University of Tennessee Neutron Scattering Division, ORNL, USA*

RB12 **Doping evolution of the in-plane London penetration depth in $Fe_{1+y}(Te_{1-x}Se_x)$ single-crystals**
Andrei Diaconu[1], Jin Hu[2], Tijiang Liu[2], Bin Qian[2], Zhiqiang Mao[2] and Leonard Spinu[1], *[1]Advanced Materials Research Institute and Physics Department, University of New Orleans, USA; [2]Department of Physics, Tulane University, USA*

RB13 **Potassium doping effect in double-chain $BaFe_2Se_3$**
Jinke Bao, Yunlei Sun, Wenhe Jiao, Yongkang Luo, Zhu'an Xu and Guanghan Cao*, *Department of Physics, Zhejiang University, China*

RB14 **Sr_2VO_3FeAs: Hybrid of a magnetic $SrVO_3$ and a FeAs superconducting layers**
Man Jin Eom[1], Jae - Hyun Park[1], Sewoong Na[1], Younjung Jo[2], Hu - Jong Lee[1] and Jun Sung Kim[1]*, *[1]Department of Physics, POSTECH, Korea; [2]School of Physics and Energy Sciences, KNU, Korea*

RB15 **Static and dynamic properties of nearly optimaly doped superconductor $SmFeAsO_{0.86}F_{0.14}$**
Amitabha Ghoshray[1]*, Mayukh Majumder[1], Kajal Ghoshray[1], Asok Poddar[1], Chandan Mazumdar[1] and David Berardan[2], *[1]ECMP Division, Saha Institute of Nuclear Physics, Kolkata, India; [2]Institut de Chimie Moleculaire et des Materiaux d'Orsay, Institut de Chimie Moleculaire et des Materiaux d'Orsay, Univ. Paris-Sud 11, 91405 Orsay, France*

RB16 **Effect of d-orbital characters of the Fe magnetic moment on the electronic and magnetic properties of $BaFe_2As_2$**
Hyungju Oh and Hyoung Joon Choi*, *Department of Physics and IPAP, Yonsei University, Korea*

RB17 **$Ca(Fe_{1-x}Co_x)_2As_2$ under pressure: studies using single crystal neutron diffraction**
Karel Prokes[1], B. Ouladdiaf[2], L. Harnagea[3], S. Wurmehl[3], B. Buechner[3] and D. Argyriou[4], *[1]M-I1, Helmholtz Zentrum Berlin, Germany; [2]Institut Laue-Langevin, 38042 Grenoble Cedex, France; [3]Leibniz-Institute for Solid State and Materials Research, (IFW)-Dresden, D-01171 Dresden, Germany; [4]European Spallation Source ESS AB - Box 176, 22100 Lund, Sweden*

RB18 **Monte Carlo study of the magneto-elastic effects in Fe pnictides**
Cesar Jose Calderon Filho[1]*, Alex Antonelli[1], David Vaknin[2] and Gaston Eduardo Barberis[1], *[1]IFGW, State University of Campinas - UNICAMP, Brazil; [2]Ames National Laboratory and Department of Physics, Iowa State University, USA*

RB19 **Geometrical Vortex Transition in the iron pnictide SmFeAs(O,F)**
Philip J.w. Moll[1]*, Luis Balicas[2], Janusz Karpinski[3], Nikolai Zhigadlo[4] and Batlogg Bertram[5], *[1]Solid State Physics Laboratory, ETH Zurich, Switzerland; [2]National High Magnetic Field Laboratory, Florida State University, USA; [3]Solid State Physics, ETH Zurich, Switzerland; [4]Solid State Laboratory, ETH Zurich, Switzerland; [5]Solid State Theory, ETH Zurich, Switzerland*

RB20 **$SmFeAsO_{1-x}F_x$: Raman scattering and x-ray diffraction study under low temperature and high pressure conditions**
Sofia Michaela Souliou[1]*, Mathieu Le Tacon[1], Andrew C. Walters[1], Chengtian Lin[1], Karl Syassen[1], Bernhard Keimer[1], Gaston Garbarino[2], Michael Hanfland[2], Wilson Crichton[2], Janusz Karpinski[3] and Nicolai Zhigaldo[3], *[1]Max-Planck-Institut fur Festkorperforschung, Heisenbergstr. 1, D-70569 Stuttgart, Germany; [2]European Synchrotron Radiation Facility, BP 220, F-38043 Grenoble Cedex, France; [3]Laboratory for Solid State Physics, ETH Zurich, CH-8093 Zurich, Switzerland*

RB21 **Mass renormalization in isostructural Ru- and Fe-pnictides**
Philip J.w. Moll[1]*, Jakob Kanter[1], Ross Mc.donald[2], Fedor Balakirev[2], Peter Blaha[3], Karlheinz Schwarz[3], Zbigniew Bukowski[1], Nikolai D. Zhigadlo[1], Sergiy Katrych[1], Kurt Mattenberger[1], Janusz Karpinski[1] and Bertram Batlogg[1], *[1]Solid State Physics Laboratory, ETH Zurich, Switzerland; [2]National High Magnetic Field Laboratory, Los Alamos National Laboratory, USA; [3]Institute of Materials Chemistry, Vienna University of Technology, Austria*

RB22 **The role of spin fluctuation for the high Tc superconductivity in LiFeAs, LiFeP, NaFeAs**
Geunsik Lee, Hyo Seok Ji and Ji Hoon Shim*, *Chemistry, POSTECH, Korea*

RB23 **DFT+DMFT study on the electronic structure and anisotropy of Sr_2VO_3FeAs superconductor.**
Hyo Seok Ji and Ji Hoon Shim*, *Chemistry, POSTECH, Korea*

RB24 **Behaviour of Magnetic and structural transitions upon Sr doping in $CaFe_2As_2$ and $EuFe_2As_2$**
Neeraj Kumar*, Ruta Kulkarni, Sudesh Kumar Dhar and Arumugam Thamizhavel, *Condensed Matter Physics and Materials Science, Tata Institute of Fundamental Research, Mumbai, India*

RB25 **Specific heat of the vortex lattice in iron-pnictide superconductors**
Miguel Araujo[1] and Pedro Sacramento[2], *[1]CFIF, Instituto Superior Tecnico, TU Lisbon and Department of Physics, Universitiy of Evora, Portugal; [2]CFIF, Instituto Superior Tecnico, TU Lisbon, Portugal*

RB26 **Hexagonal superconducting pnictide SrPtAs: an ab initio study**
Sonny S. H. Rhim[1], S. J. Youn[2], Daniel Agterberg[3], Michael Weinert[3] and Arthur J Freeman[1], *[1]Physics and Astronomy, Northwestern University, USA; [2]Physics Education and Research Institute of Natural Science, Gyeong Sang National University, Korea; [3]Physics, U. Wisconsin-Milwaukee, USA*

RB27 **Josephson effect in BaKFeAs inter-grain boundary junctions**
Sung-hak Hong[1], Sung Hoon Lee[1], Soon-gul Lee[1]*, Soon-gil Jung[2], Nam Hoon Lee[2] and Won Nam Kang[2], *[1]Department of Display and Semiconductor Physics, Korea University, Korea; [2]BK21 Physics Division and Department of Physics, Sungkyunkwan University, Korea*

RB28 **Coexistence of different electronic phases in the $K_{0.8}Fe_{1.6}Se_2$ superconductor: a bulk-sensitive hard x-rays spectroscopy study**
Laura Simonelli[1]*, Naurang L. Saini[2], Marco Moretti Sala[1], Y. Mizuguchi[3], Y. Takano[3], H. Takeya[3], T. Mizokawa[4] and Giulio Monaco[1], *[1]ESRF, France; [2]Dipartimento di Fisica, Universit'a di Roma "La Sapienza" - P. le Aldo Moro 2, 00185 Roma, Italy; [3]National Institute for Materials Science, 1-2-1 Sengen, Tsukuba 305-0047, Japan and JST-TRIP, 1-2-1, Japan; [4]Department of Physics, and Department of Complexity Science and Engineering, University of Tokyo, Japan*

RB29 **Step towards a ferromagnetic Josephson junction in YBCO/LCMO heterostructures**
Soltan Soltan[1]*, Magdy El-hagary[2], Hanns-ulrich Habermeier[3] and Nasser Alzayed[4], *[1]Physics Department, Faculty of Science, Helwan University, 11792 Helwan, Cairo, Egypt; [2]Physics Department, College of Science,Qassim University, P.O. Box 6644 Buraidah 51452, Saudi Arabia; [3]Max-Planck-Institute FKF, Heisenbergstrasse 1, 70569-Stuttgart, Germany; [4]Physics Department, King Saud University, Saudi Arabia*

RC: Topological insulators I

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Mahn-Soo Choi (Korea University, Korea)

RC01 **DMFT study of the correlation effects on a topological insulator**
Tsuneya Yoshida*, Satoshi Fujimoto and Norio Kawakami, *Department of Physics, Kyoto University, Japan*

RC02 **Self-consistent treatment of fully relativistic effect in the small bismuth clusters Bin ($2 \leq n \leq 7$)**
Ely Aprilia[1]*, Haruki Katou[2], Junpei Gotou[2], Shinya Haraguchi[2], Suprijadi Haryono[3] and Tatsuki Oda[4], *[1]Double Degree Program of Kanazawa university-Bandung Institute of Technology, Indonesia; [2]Graduate School of Natural Sciences and Technology, Kanazawa University, Japan; [3]Faculty of Mathematics and Natural Sciences, Bandung Institute of Technology, Indonesia; [4]Institute of Science and Engineering, Kanazawa University, Japan*

RC03 (Upgraded to oral) **Hidden topological order in URu_2Si_2**
Tanmoy Das, *Theoretical Division, Los Alamos National Laboratory, USA*

RC04 **Ground-state properties of a two-dimensional correlated topological insulator**
Yuto Takenaka* and Norio Kawakami, *Department of Physics, Kyoto University, Japan*

RC05 (Withdrawn) **Magnetic impurity doping effect on bulk Rashiba spin splitting system BiTeI**
Jeongdae Seo and Jong- Soo Rhyee*, *Applied Physics, Kyung Hee Universty, Korea*

RC06 **Topological charge pumping effect by the magnetization dynamics on the surface of 3D topological insulators**
Hiroaki T Ueda[1]*, Akihito Takeuchi[1], Gen Tatara[1] and Takehito Yokoyama[2], *[1]Department of Physics, Tokyo Metropolitan University, Japan; [2]Department of Physics, Tokyo Institute of Technology, Japan*

RC07 **Tuning of carrier type in Mn-doped Bi_2Se_3**
Young Ha Choi[1], Nahyun Jo[1], Kyujoon Lee[1], Jumpei Kajino[2], Toshiro Takabatake[2] and Myung- Hwa Jung[1]*, *[1]Department of Physics, Sogang University, Korea; [2]ADSM, Hiroshima University, Japan*

RC08 **Magnetic edge profile in the Kane-Mele-Hubbard model**
Hyeong Jun Lee[1], Moo Young Choi[1] and Gun Sang Jeon[2]*, *[1]Department of Physics and Astronomy and Center for Theoretical Physics, Seoul National University, Korea; [2]Department of Physics, Ewha Womans University, Korea*

RC09 **Theoretical study of spin texture in the Bi thin film**
Hiroki Kotaka[1]*, Fumiyuki Ishii[2] and Mineo Saito[2], *[1]Graduate School of Natural Science and Technology, Kanazawa University, Japan; [2]Faculty of Mathematics and Physics, Kanazawa University, Japan*

RC10 **A recipe for new topological insulators based on bonds, bands, symmetry and heavy atoms**
Lukas Muechler[1], Binghai Yan[2], Stanislav Chadov[3], Haijun Zhang[4], Frederick Casper[1], Shoucheng Zhang[4] and Claudia Felser[3]*, *[1]Inst. fuer Anorg. Chemie, Johannes Gutenberg - Universitaet Mainz, Germany; [2]Bremen Center for Computational Materials Science, Germany; [3]Max-Planck-Institut fur Chemische Physik fester Stoffe, Germany; [4]Department of Physics, Stanford University, USA*

RC11 **Optimizing the $Bi_{2-x}Sb_xTe_{3-y}Se_y$ solid solutions to approach the intrinsic topological insulator regime**
Zhi Ren*, Alexey Taskin, Satoshi Sasaki, Kouji Segawa and Yoichi Ando, *ISIR, Osaka University, Japan*

RC12 **Exploration of three-dimensional rashba materials**
Manabu Kanou* and Sasagawa Takao, *Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*

RC13 **Quantum phase transition from normal to topological insulator phase in Na_2IrO_3**
Choong H. Kim[1], Heung Sik Kim[1], Hogyun Jeong[2], Hosub Jin[3] and Jaejun Yu[1]*, *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]Korea Institute of Science and Technology Information, Korea; [3]Department of Physics and Astronomy, Northwestern University, USA*

RC14 **Self-assembled nanowire with giant Rashba spin splitting**
Jewook Park, Min-cherl Jung, Sung Won Jung and Han Woong Yeom*, *Department of physics, POSTECH, Center for atomic wires and layers(CAWL), Korea*

RC15 **Ab initio study of topological surface state on Sb (111) surface with iron impurities**
Jinhee Han, Hyungjun Lee and Hyoung Joon Choi*, *Department of Physics and IPAP, Yonsei University, Korea*

RC16 **Topological insulating phase in cubic system: tight-binding approach**
Hosub Jin, Jino Im and Arthur J. Freeman, *Department of Physics and Astronomy, Northwestern University, USA*

RC17 **Topological insulator phase and Kitaev-like anisotropic exchange interactions in Li_2IrO_3**
Heung-sik Kim[1], Choong H. Kim[1], Hogyun Jeong[2], Hosub Jin[3] and Jaejun Yu[1]*, *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]Korea Institute of Science and Technology Information, Korea; [3]Department of Physics and Astronomy, Northwestern University, USA*

RC18 **Structural and electrical properties of (111) oriented half-Heusler La-Pt-Bi thin films**
Nozomi Sugimoto[1]*, Yohei Niimi[1], Tetsuya Miyawaki[1], Tatsuhiko Yoshihara[1], Naoto Fukatani[1], Kenji Ueda[1], Nobuo Tanaka[2] and Hidefumi Asano[1], *[1]Department of Crystalline Materials Science, Nagoya University, Japan; [2]EcoTopia Institute, Nagoya University, Japan*

RC19 **First-principles study of spin texture in the multilayer graphene on Ni(111)**
Fumiyuki Ishii[1]*, Hiroki Kotaka[2], Keisuke Sawada[2] and Mineo Saito[1], *[1]Faculty of Mathematics and Physics, Kanazawa University, Japan; [2]Graduate School of Natural Science and Technology, Kanazawa University, Japan;*

RD: Heavy fermions III

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: S. Wirth (MPI, Germany)

RD01 **Single crystal growth, electrical and magnetic properties in ROs_2Al_{10} (R=rare earth)**
Masahito Sakoda[1]*, Kazuhiro Kubota[1], Eiichi Matsuoka[1], Hitoshi Sugawara[1], Takahiro Sakurai[2], Hitoshi Ohta[3], Tatsuma D. Matsuda[4] and Yoshinori Haga[4], *[1]Department of Physics, Kobe University, Kobe 657-8501, Japan; [2]Center for Supports to Research and Education Activities, Kobe University, Kobe 657-8501, Japan; [3]Molecular Photosciece Research Center, Kobe University, Kobe 657-8501, Japan; [4]Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Ibaraki 319-1195, Japan*

RD02 **Anisotropic transport and magnetic properties of $CeZn_{11}$ single crystals^1$**
H. Hodovanets, S. L. Bud'ko and P. C. Canfield*, *Department of Physics and Astronomy, Ames Laboratoryllowa State University, Ames IA, USA*

RD03 (Upgraded to oral) **Shubnikov-de Haas oscillation in $PuIn_3$**
Yoshinori Haga[1], Oscar Ayala-valenzuela[2], Ross Mcdonald[2], Chuck Mielke[2], Eric D. Bauer[2], J N Mitchell[2], P. H. Tobash[2], Joe D. Thompson[2] and Zachary Fisk[1], *[1]Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [2]Los Alamos National Laboratory, USA*

RD04 **Quadrupolar ordering in a caged compound $PrOs_2Zn_{20}$**
Kazuhei Wakiya[1], Naohiro Nagasawa[1], Keisuke T Matsumoto[1], Takahiro Onimaru[1], Kazunori Umeo[2] and Toshiro Takabatake[1], *[1]AdSM, Hiroshima University, Higashi-Hiroshima, Japan; [2]N-BARD, Hiroshima University, Higashi-Hiroshima, Japan*

RD05 **Spin-triplet superconductivity induced by ferromagnetic fluctuations in UCoGe**
Taisuke Hattori[1]*, Yoshihiko Ihara[1], Kosuke Karube[1], Yusuke Nakai[2], Kenji Ishida[2], Yasuhiro Tada[1], Satoshi Fujimoto[1], Norio Kawakami[1], Kazuhiko Deguchi[3], Noriaki K Sato[3] and Isamu Satoh[4], *[1]Department of Physics, Graduate School of Science, Kyoto University, Japan; [2]Department of Physics, Graduate School of Science, Kyoto University. TRIP, JST, Japan; [3]Department of Physics, Graduate School of Science, Nagoya University, Japan; [4]Institute for Materials Research, Tohoku University, Japan*

RD06 **Competitive magnetic properties between the different anisotropic SDW phases in heavy-fermion system $Ce_{0.87}La_{0.13}(Ru_{1-x}Rh_x)_2Si_2$**
Hiroaki Okamoto[1], Eiichiro Harada[1], Yusuke Amakai[1], Shigeyuki Murayama[1]*, Hideaki Takano[1], Naoki Momono[1], Kazuyuki Matsubayashi[2] and Yoshiya Uwatoko[2], *[1]Graduate School of Engineering, Muroran Institute of Technology, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan*

RD07 **Elastic constant of $SmOs_4Sb_{12}$ under high magnetic field**
Tatsuya Yanagisawa[1]*, Shota Mombetsu[1], Mitsuhiro Akatsu[2], Yuichi Nemoto[2], Shadi Yashin[3], Sergei Zherlitsyn[3] and Joachim Wosnitza[3], *[1]Department of Physics, Hokkaido University, Japan; [2]Graduate School of Science and Technology, Niigata University, Japan; [3]Dresden High Magnetic Field Laboratory, Forschungszentrum Dresden-Rossendorf, Germany*

RD08 **27Al-NMR study for critical phenomena of metamagnetic transition in UCoAl**
Kosuke Karube[1]*, Taisuke Hattori[1], Kenji Ishida[1], Takuya Asai[2], Takemi Komatsubara[3] and Noriaki Kimura[2], *[1]Department of Physics, Graduate School of Science, Kyoto University, Japan; [2]Department of Physics, Graduate School of Science, Tohoku University, Japan; [3]Center for Low Temperature Science, Tohoku University, Japan*

RD09 **Hybridization gap and the hidden order in the heavy fermion Kondo lattice URu_2Si_2**
Wan Kyu Park[1]*, Paul H. Tobash[2], Filip Ronning[2], Eric D. Bauer[2], John L. Sarrao[2], Joe D. Thompson[2] and Laura H. Greene[1], *[1]University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA; [2]Los Alamos National Laboratory, Los Alamos, NM 87545, USA*

RD10 **Resonant Raman effect on $LaRu_2Al_{10}$ and $CeRu_2Al_{10}$**
Katsuaki Nagano[1], Takumi Hasegawa[1], Norio Ogita[1], Masayuki Udagawa[1], Hiroshi Tanida[2], Daiki Tanaka[2], Masafumi Sera[2], Takashi Nishioka[3] and Masahiro Matsumura[3], *[1]Graduate School of Integrated Arts and Sciences, Hiroshima University, Higashi-Hiroshima 739-8521, Japan; [2]Institute for Advanced Material Research, Hiroshima University, Higashi-Hiroshima 739-8530, Japan; [3]Graduate School of Advanced Sciences of Matter, Kouchi University, Kochi 780-8520, Japan*

RD11 **Magnetic properties of β-US2 single crystals**
Etsuji Yamamoto[1]*, Shugo Ikeda[2], Hironori Sakai[1], Tatsuma D. Matsuda[1], Naoyuki Tateiwa[1], Yoshinori Haga[1], Yoshichika Onuki[3] and Zachary Fisk[4], *[1]ASRC, Japan Atomic Energy Agency, Japan; [2]Graduate School of Material Science, University of Hyogo, Japan; [3]Graduate School of Science, Osaka University, Japan; [4]University of California, USA*

RD12 **Evidence of nodal gap structure in the skutteride superconductor $PrPt_4Ge_{12}$**
Jing Lei Zhang[1], Lin Jiao[1], Michael Nicklas[2], Roman Gumeniuk[2], Ye Chen[1], Lu Kai Guo[1], Li Na Wang[1], Bin Hao Fu[1], Walter Schnelle[2], Helge Rosner[2], Andreas Leithe-jasper[2], Yuri Grin[2], Frank Steglich[2] and Hui Qiu Yuan[1]*, *[1]Department of Physics, Zhejiang University, China; [2]Max Planck Institute for Chemical Physics of Solid, Germany*

RD13 **Mossbauer spectroscopy of Fe doping valence fluctuating α-$YbAlB_4$**
Yui Sakaguchi[1]*, Shugo Ikeda[1], Kentaro Kuga[2], Keita Sone[2], Satoru Nakatsuji[2] and Hisao Kobayashi[1], *[1]Graduate School of Material Science, University of Hyogo, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan*

RD14 **Neutron scattering study on f-electron states of $PrCu_4Au$**
Hiroki Kobayashi[1], Kazuaki Iwasa[1]*, Kotaro Saito[1], Keisuke Tomiyasu[1], Daichi Kawana[2], Shuai Zhang[3], Yosikazu Isikawa[4], Jean - Michel Mignot[5], Gilles Andre[5], Alexander I. Kolesnikov[6], Andrei T. Savici[6] and Garrett E. Granroth[6], *[1]Department of Physics, Tohoku University, Sendai 980-8578, Japan; [2]Condensed Matter Research Center and Photon Factory, Institute of Materials Structure Science, KEK, Tsukuba 305-0801, Japan; [3]Department of Applied Chemistry, Hiroshima University, Higashi-Hiroshima 739-8527, Japan; [4]Graduate School of Science and Engineering, University of Toyama, Toyama 930-8555, Japan; [5]Laboratoire Leon Brillouin, CEA-CNRS, CEA/Saclay, 91191 Gif sur Yvette, France; [6]Neutron Sciences D., Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA*

RD15 **Effect of pressure on the $YbNi_3Ga_9$ single crystal**
T. Hirayama[1], K. Matsubayashi[1], T. Yamashita[2], S. Ohara[2] and Y. Uwatoko[1]*, *[1]University of Tokyo, Japan; [2]Nagoya Institute of Technology, Japan*

RD16 **Fermi surfaces in the mixed valent Yb system**
Hisatomo Harima*, *Department of Physics, Kobe University, Japan*

RD17 **Unusual heavy fermion behavior in $PrTr_2Al_{20}$ (T = Nb, Ta) associated with Γ3 quadrupolar degrees of freedom**
Ryuji Higashinaka, Akihiro Nakama, Ryoichi Miyazaki, Yuji Aoki and Hideyuki Sato, *Department of Physics, Tokyo Metropolitan University, Japan*

RD18 **Tuning of the heavy-fermion ground state in $YbNi_3X_9$ (X=Al, Ga) by substitution**
Shigeo Ohara*, Hiroshi Kono and Tetsuro Yamashita, *Graduate School of Engineering, Nagoya Institute of Technology, Nagoya 466-8555, Japan*

RD19 **Pressure effect studies in $Ce_2T_3Ge_5$ (T=Rh, Pd, Ir) by electrical resistivity**
Miho Nakashima[1], Toshiyuki Uchiyama[1], Toru Kawata[1], Yasushi Amako[1], Yusuke Hirose[2], Honda Fuminori[2], Rikio Settai[2] and Onuki Yoshichika[2], *[1]Department of Physics, Faculty of Science, Shinshu University, Japan; [2]Graduate School of Science, Osaka University, Japan*

RD20 **Photoemission study on new Kondo lattice compounds $YbNi_3(Ga_{1-x}Al_x)_9$**
Yuki Utsumi[1], Hitoshi Sato[2], Shigeo Ohara[3], Tetsuro Yamashita[3], Kojiro Mimura[4], Satoru Motonami[4], Masashi Arita[2], Shigenori Ueda[5], Keisuke Kobayashi[5], Kenya Shimada[2], Hirofumi Namatame[2] and Masaki Taniguchi[2], *[1]Graduate School of Science, Hiroshima University, Japan; [2]Hiroshima Synchrotron Radiation Center, Hiroshima University, Japan; [3]Graduate School of Engineering, Nagoya Institute of Technology, Japan; [4]Graduate School of Engineering, Osaka Prefecture University, Japan; [5]NIMS Beamline Station at SPring-8, National Institute for Materials Science, Japan*

RD21 **Heavy-fermion properties of $YbCu_{5-x}Au_x$ (x = 0.5, 0.6, 0.7)**
Ivan Curlik[1]*, Mauro Giovannini[2], Mariana Zapotokova[3] and Marian Reiffers[1], *[1]Institute of Experimental Physics, Slovak Academy of Science, Watsonova 47, 040 01, Kosice, Slovakia; [2]CNR-SPIN and Department of Chemistry, University of Genoa, Via Dodecaneso 31, 16 146, Genoa, Italy; [3]Institute of Experimental Physics, Slovak Academy of Science, Watsonova 47, 040 01, Kosice, Slovakia*

RD22 **Magetic properties of heavy-fermion compounds $Ce_{1-x}Lu_xRu_2Si_2$**
Toru Sekiguchi[1], Yusuke Amakai[1], Shigeyuki Murayama[1]*, Hideaki Takano[1], Naoki Momono[1], Kazuyuki Matsubayashi[2] and Yoshiya Uwatoko[2], *[1]Graduate School of Engineering, Muroran Institute of Technology, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan*

RD23 **Moment-bearing Tb substitution in $CePt_2Si_2$**
Moise Bertin Tchoula Tchokonte[1]*, Zwelithini Melford Mahlubi[1], Paul De Villiers Du Plessis[2], Andre Michael Strydom[2] and Dariuzs Kaczorowski[3], *[1]Physics, University of the Western Cape, South Africa; [2]Physics, University of Johannesburg, South Africa; [3]Physics, Institute of Low Temperature and Structure Research, Polish Academy of Sciences., Poland*

RD24 **Heavy Fermion Behavior of $Yb_2Ni_{12}P_7$ Studied by 31P NMR**
Takehide Koyama[1], Kyohei Sugiura[1], Koichi Ueda[1], Takeshi Mito[1], Takao Kohara[1], Tomohito Nakano[2], Ryohei Satoh[3], Katsuhiko Tsuchiya[3] and Naoya Takeda[2], *[1]Graduate School of Material Science, University of Hyogo, Japan; [2]Faculty of Engineering, Niigata University, Japan; [3]Graduate School of Science and Technology, Niigata University, Japan*

RD25 **Electronic structure of RCu_2Si_2 (R=Yb, Y) studied by soft x-ray angle-resolved photoemission spectroscopy**
Akira Yasui[1], Shin-ichi Fujimori[1], Ikuto Kawasaki[2], Tetsuo Okane[1], Yukiharu Takeda[1], Yuji Saitoh[1], Hiroshi Yamagami[3], Akira Sekiyama[4], Rikio Settai[5], Tatsuma D Matsuda[6], Yoshinori Haga[6] and Yoshichika Onuki[5], *[1]Condensed Matter Science Division, Japan Atomic Energy Agency, Japan; [2]Advanced Meson Science Laboratory, RIKEN Nishina Center for Accelerator-Based Science, Japan; [3]Department of Physics, Kyoto Sangyo University, Japan; [4]Division of Materials Physics, Osaka University, Japan; [5]Department of Physics, Osaka University, Japan; [6]Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

RD26 **Anomalous increase of TC in UGa_2 under pressure**
Ladislav Havela[1], A. Kolomiets[2], J. Prchal[1] and A. V. Andreev[3], *[1]Department of Condensed Matter Physics, Charles University, Czech Republic; [2]Department of Physics, Lviv Polytechnic National University, Ukraine; [3]Institute of Physics, Academy of Sciences of the Czech Republic, Czech Republic*

RE: Non-fermi liquids and quantum phase transitions I

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)

Chairperson: Ki-Seok Kim (POSTECH, Korea)

RE01 **Engineered p-d exchange interaction of coupled double diluted magnetic quantum dots**
Eun-young Kim, *Seoul National University, Korea*

RE02 **Quasi-particle localization by disorder in an incompressible fractional quantum Hall state**
Partha Goswami*, *Physics department, D.B.College(University of Delhi),New Delhi, India*

RE03 **NpCoGe, near quantum criticality?**
Eric Colineau*, Rachel Eloirdi, Jean-christophe Griveau, Piotr Gaczynski and Alexander Shick, *European Commission, Joint Research Centre, Institute for Transuranium Elements, Germany*

RE04 **Pressure and magnetic-field induced non-Fermi-liquid behavior in $YbCo_2Zn_{20}$**
Kazuyuki Matsubayashi[1]*, Rina Yamanaka[1], Yuta Saiga[2], Tatsuya Kawae[3] and Yoshiya Uwatoko[1], *[1]Institute for Solid State Physics, The University of Tokyo, Japan; [2]Institute for Advanced Materials Research, Hiroshima University, Japan; [3]Department of Applied Quantum Physics, Faculty of Engineering, Kyushu University, Japan*

RE05 **Relationship between single-particle excitation and spin excitation at the Mott transition**
Masanori Kohno*, *WPI Center for Materials Nanoarchitectonics, National Institute for Materials Science, Japan*

RE06 **Quantum criticality in Kondo quantum dot coupled to 2D topological insulator**
Chung-hou Chung* and Salman Silotri, *Electrophysics Dept., National Chiao-Tung University, HsinChu, Taiwan, R.O.C., Taiwan*

RE07 **Nature of insulator-metal-insulator transitions in the ionic Hubbard model**
Aaram Joo Kim[1], Moo Young Choi[1] and Gun Sang Jeon[2]*, *[1]Department of Physics and Astronomy, Center for Theoretical Physics, Seoul National University, Korea; [2]Department of Physics, Ewha Womans University, Korea*

RE08 **Variational cluster approach to the Hubbard model on the honeycomb lattice**
Kazuhiro Seki* and Yukinori Ohta, *Department of Physics, Chiba University, Japan*

RE09 **Onset of magnetic order in $U_2(Ni_{1-x}Fe_x)_2Sn$**
Silvie Maskova[1]*, Ladislav Havela[1], Aleksandre Kolomiets[2], Alexander V. Andreev[3], Heinz Nakotte[4], Joe Peterson[4], Yurii Skourski[5], Shadi Yasin[5], Sergei Zherlitsyn[5], Joachim Wosnitza[5] and Khrystyna Miliyanchuk[6], *[1]Department of Condensed Matter Physics, Charles University in Prague, Czech Republic; [2]Department of Physics, Lviv Polytechnic National University, Ukraine; [3]Institute of Physics, ASCR, Czech Republic; [4]Department of Physics, New Mexico State University, USA; [5]Dresden High Magnetic Field Laboratory, Helmholtz-Zentrum Dresden-Rossendorf, Germany, [6]Faculty of Chemistry, Ivan Franko National University, Lviv, Ukraine*

RE10 **Magnetic phase diagram of UCoAl**
Tatsuma D. Matsuda[1], Dai Aoki[2], Naoyuki Tateiwa[1], Etsuji Yamamoto[1], Yoshinori Haga[1], Yoshichika Onuki[3], Jacques Flouquet[2] and Zachary Fisk[4], *[1]ASRC, JAEA, Japan; [2]INAC/SPSMS, CEA-Grenoble, France; [3]Graduate School of Science, Osaka University, Japan; [4]University of California, USA*

RE11 **Renormalization-group exponents for competitions between inter-electronic and phonon-mediated interactions in ladder systems**
Wen-min Huang[1]*, Yiwei Cai[2] and Hsiu-hau Lin[2], *[1]Physics Division, National Center for Theoretical Sciences, Taiwan; [2]Department of Physics, National Tsing Hua University, Taiwan*

RE12 **Crystal growth and magnetic order of Ni-doped CePdAl**
Veronika Fritsch[1]*, Sarah Woitschach[2], Oliver Stockert[2], Michael M. Koza[3], Silvia Capelli[3] and Hilbert V. Loehneysen[4] *[1]Physikalisches Institut, Karlsruher Institut fuer Technologie, 76131 Karlsruhe, Germany; [2]Max-Planck-Institut fuer Chemische Physik fester Stoffe, 01187 Dresden, Germany; [3]Institut Laue-Langevin, 38042 Grenoble, France; [4]Physikalisches Institut and Institut fuer Festkoerperphysik, Karlsruher Institut fuer Technologie, 76131 Karlsruhe, Germany*

RE13 **Transport properties of $Ho_{1-x}Lu_xB_{12}$ solid solutions**
Slavomir Gabani[1*], Ivan Batko[1], Marianna Batkova[1], Karol Flachbart[1], Emil Gazo[1], Gabriel Pristas[1], Iveta Takacova[1], Alexey Bogach[2], Nickolay Sluchanko[2] and Natalya Shitsevalova[3], *[1]Centre of Low Temperature Physics, Institute of Experimental Physics SAS, Slovak; [2]General Physics Institute RAS, Russia; [3]Institute for Problems of Materials Science NASU, Ukraine*

RE14 (Withdrawn) **Low temperature thermal and electrical transport properties of $ZrZn_2$ in high magnetic field**
Yang Zou[1]*, Michael Sutherland[1], Stephen Hayden[2] and F. Malte Grosche[1], *[1]Department of Physics, University of Cambridge, United Kingdom; [2]Department of Physics, University of Bristol, United Kingdom*

RE15 (Withdrawn) **Non fermi liquid behaviour in YFe_2Ge_2**
Yang Zou*, Zhuo Feng, Sven Friedemann and F. Malte Grosche, *Department of Physics, University of Cambridge, United Kingdom*

RF: Theory of strongly correlated matter II

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: M. Vojta (MPI, Germany)

RF01 **Magnetic orderings at the interface between Mott insulator and band insulator**
Suguru Ueda[1]*, Norio Kawakami[1] and Manfred Sigrist[2], *[1]Department of Physics, Kyoto University, Japan; [2]Theoretische Physik, ETH Zurich, Switzerland*

RF02 **Strong electron correlation in Cu-doped CaO nanocolloid**
Nguyen Thuy Trang[1], Pham Thanh Cong[2], Hoang Nam Nhat[3]*, *[1]Faculty of Physics, Vietnam National University, University of Natural Sciences, Viet Nam; [2]Physikalisches Institut, Goethe-Universitat Frankfurt, Germany; [3]Faculty of Technical Physics and Nanotechnology, Vietnam National University, University of Engineering and Technology, Viet Nam*

RF03 **The book-keeping fermion analysis of the double exchange model with antiferromagnetic background**
Kyohei Nakano[1]*, Robert Eder[2], Yukinori Ohta[1] and Piotr Wrobel[3], *[1]Department of Physics, Chiba university, Japan; [2]Institute for Solid State Physics, Karlsruhe Institute of Technology, Germany; [3]Institute for Low Temperature and Structure Research, Poland*

RF04 **Phonon Induced Thermodynamic Properties of $La_{1-x}Ca_xCoO_3$**
Rasna Thakur*, Rajesh K. Thakur and N.k. Gaur, *Department of Physics, Barkatullah University, Bhopal, India*

RF05 **Dynamical antiferromagnetic phase transition after the quantum quench in the fermionic Hubbard model**
Naoto Tsuji* and Philipp Werner, *Institute for Theoretical Physics, ETH Zurich, Switzerland*

RF06 **Itinerant magnetism in the hubbard model within the dynamical cluster approximation**
Unjong Yu*, *GIST college, Gwangju Institute of Science and Technology, Korea*

RF07 **First principles DFT+U method for strongly correlating electronic structure systems**
Tomoyuki Hamada[1], Takahisa Ohno[2] and Sadamichi Maekawa[3], *[1]Central Research Laboratory, Hitachi Ltd., JST-CREST, Japan; [2]National Institute of Materials Research, Japan; [3]ASRC, JAEA, JST-CREST, Japan*

RF08 (Moved to other session) **Correlation effect in ferromagnetic 3d transition metals**
Muneyuki Nishishita[1], Sudhakar Pandey[2] and Dai Hirashima[1]*, *[1]Nagoya University, Japan; [2]APTPC, Korea*

RF09 **Mott transition in frustrated Hubbard model with spatial anisotropy: Cellular dynamical mean field study**
Tomoko Kita[1]*, Yuta Furukawa[1], Takuma Ohashi[2] and Norio Kawakam[i1], *[1]Department of Physics, Kyoto University, Japan; [2]Department of Physics, Osaka University, Japan*

RF10 **Spin-nematic and -singlet states in the Mott insulator phase of the S=1 two-dimensional Bose-Hubbard model**
Yuta Toga[1], Hiroki Tsuchiura[1], Makoto Yamashita[2] and Hisatoshi Yokoyama[3], *[1]Department of Applied Physics, Tohoku University, Japan; [2]NTT Basic Research Laboratories, NTT Corporation, Japan; [3]Department of Physics, Tohoku University, Japan*

RF11 **Dynamical instability in two-component bosonic systems in an optical lattice**
Rui Asaoka[1], Yuta Toga[1], Hiroaki Tsuchiura[1] and Makoto Yamashita[2], *[1]Depertment of Applied Physics, Tohoku University, Japan; [2]NTT Basic Research Laboratories, NTT Corporation, Japan*

RF12 **Mechanism for the high Neel temperature in SrTcO3**
Ashis Kumar Nandy[1], S. Middey[1], Priya Mahadevan[2]* and D. D. Sarma[3], *[1]Centre for Advanced Materials, Indian Association for the Cultivation of Science, India; [2]S.N. Bose National Centre for Basic Sciences, India; [3]Solid State and Structural Chemistry Unit, Indian Institute of Science, India*

RF13 **Spin-spectral-weight distribution and energy range of the parent compound La_2CuO_4**
Jose Carmelo[1], Miguel Araujo[2], Steven White[3] and Maria Sampaio[1], *[1]Departament of Physics, University of Minho, Portugal; [2]Departament of Physics, University of Evora, Portugal; [3]Departament of Physics, University of California, USA*

RF14 **J_1J_2 anti-ferromagnetic heisenberg model on bilayer honeycomb lattice**
Mojtaba Shoja Shabankah and Farhad Shahbazi, *Physics, Isfahan University Of Technology, Iran*

RF15 **A hybrid exchange density functional study of $La_{1-x}Ca_xMnO_3$**
Romi Kaur Korotana[1], Leandro Liborio[1], Giuseppe Mallia[1], Zsolt Gercsi[2] and Nicholas Harrison[1], *[1]Chemistry, Imperial College London, United Kingdom; [2]Physics, Imperial College London, United Kingdom*

RF16 (Withdrawn) **Magnetic properties of $GdFe_{11}Ti$ via first principal calculations.**
E. E. Kokorina*, M. V. Medvedev and I. A. Nekrasov, *Laboratory of Theoretical Physics, Institute of Electrophysics, Russia*

RF17 (Withdrawn) **Mott transition of ultracold Fermi-Fermi mixtures in optical lattices**
Takahiro Ooi* and Seiichiro Suga, *University of Hyogo, Japan*

RG: Theory of strongly correlated matter III

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jung Hoon Han (Sungkunkwan University, Korea)

RG01 **Anisotropy in a high Landau level due to effective electron-electron interactions**
Orion Ciftja, *Prairie View A&M University, USA*

RG02 **Bipolaron-Bipolaron interaction in many electron Holstein-Hubbard model**
Monodeep Chakraborty and B. I. Min, *Department of Physics, Pohang University of Science and Technology, Korea*

RG03 **Partial disorder in an Ising-spin Kondo lattice model on a triangular lattice**
Hiroaki Ishizuka* and Yukitoshi Motome, *Department of Applied Physics, University of Tokyo, Japan*

RG04 **Basis reduction in the exact diagonalization method for the dynamical mean-field theory**
Hyeong-do Kim*, *Beamline Division, Pohang Accelerator Laboratory, Korea*

RG05 **Electronic Structure of ternary stannides RRu4Sn6 (R=Y, La, Pr, Ce, and Gd) compounds**
Saad Elgazar[1], A. M. Strydom[1] and P. M. Oppenee[r2], *[1]Physics, Johannesburg University, South Africa; [2]Physics, Uppsala University, Sweden*

RG06 (Withdrawn) **Local correlation effects in Mn doped GaAs**
Igor Di Marco*, Olle Eriksson and Patrik Thunstrom, *Physics and Astronomy - Materials Theory, Uppsala University, Sweden*

RG07 **First-principles study on noncollinear magnetism and effects of spin-orbit coupling in 5d pyrochlore oxide $Cd_2Os_2O_7$**
Hiroshi Shinaoka, Takashi Miyake and Shoji Ishibashi, *Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology, Japan*

RG08 **Nonequilibrium states and I-V characteristics in one-dimensional band and Mott insulators attached to electrodes**
Yasuhiro Tanaka* and Kenji Yonemitsu, *Institute for Molecular Science, Japan*

RG09 Enhancement of charge ordering by Zeeman effect in one-dimensional molecular conductors
Hideo Yoshioka[1], Hitoshi Seo[2] and Yuichi Otsuka[3], *[1]Department of Physics, Nara Women's University, Japan; [2]Condensed Matter Theory Laboratory, RIKEN, Japan; [3]Advanced Institute for Computational Science, RIKEN, Japan*

RG10 Contribution of electron-lattice and spin-orbit coupling to the insulator-metal transition in VO_2 and Sr_2IrO_4
Jongseok Lee[1], K. Shibuya[2], Y. Krockenberger[2], K. S. Takahashi[2], M. Kawasaki[3] and Y. Tokura[3], *[1]Department of Photonic and Applied Physics, Gwangju Institute of Science and Technology, Korea; [2]Cross-Correlated Materials Research Group (CMRG) and Correlated Electron Research Group (CERG), RIKEN, Japan; [3]Department of Applied Physics, University of Tokyo, Japan*

RG11 Multipole moments at Pr-site and electric field gradients at Sb-site in PrOs_4Sb_12_
Takeshi Goho* and Hisatomo Harima, *Department of Physics, Kobe University , Nada , Kobe 657-8501, Japan*

RG12 The effect of pairing fluctuations and disorder on the BCS-BEC crossover
Pinaki Majumdar, *Harish-Chandra Research Institute, India*

RG13 Transport properties of ferromagnetic material with Anderson-Hubbard centers
Yuriy Skorenkyy*, Oleksandr Kramar and Leonid Didukh, *Physics Department, Ternopil National Technical University, Ukraine*

RG14 First principles studies of organic charge transfer salts
Harald O. Jeschke, Anthony Jacko and Roser Valenti, *Institut fur Theoretische Physik, Universitat Frankfurt, Germany*

RG15 Dynamics of strongly correlated Fermi systems: The efffects of pair-excitations and exchange
Martin Panholzer[1]*, Eckhard Krotscheck[2], Helga M Boehm[2], Robert Holler[2] and Thomas Lichtenegger[2], *[1]Johannes Kepler University Linz, Austria; [2]Institut for Theoretical Physics, Johannes Kepler University Linz, Austria*

RG16 The induced effects of the Dzyaloshinskii-Moriya interaction on the thermal entanglement
Saeed Mahdavifar*, *Department of Physics, University of Guilan, Iran*

RG17 Magneto-polaronic effects in molecular transistors as the consequence of quantum uncertainty of the displacement of vibrating quantum dot
Glib A(alexandrovich) Skorobagatko[1]*, Sergey I. Kulinich[2], Ilya V. Krive[3] and Robert I. Shekhter[4], *[1]Department of Theoretical Physics, B.Verkin ILTPE of NAS of Ukraine, Kharkov, Ukraine; [2]Department of Theoretical Physics, B.Verkin ILTPE of NAS of Ukraine, Kharkov, Ukraine; [3]Department of Theoretical Physics, B.Verkin ILTPE of NAS of Ukraine, Ukraine; [4]Department of Physics, University of Gothenburg, SE-41296, Gothenburg, Sweden*

RG18 Defect states and electron correlations in multi-orbital Mott insulators
Adolfo Avella[1]*, Peter Horsch[2] and Andrzej Oles[3], *[1]Dipartimento di Fisica 'E.R. Caianiello', Universita degli Studi di Salerno, Italy; [2]Max Planck Institute for Solid State Research, Stuttgart, Germany; [3]Jagellonian University, Krakow, Poland*

RH: Theory, spin, magnetic materials

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Priya Mahadevan (S.N.Bose National Centre for Basic Sciences, India)

RH01 Magnetism of the noncentrosymmetric compound $CeNiC_2$-pressure effects
Susumu Katano*, Toshiaki Kobayashi and Tohru Yoshida, *Graduate School of Science and Engneering, Saitama University, Japan*

RH02 Atomic scale disorder driven bicritical region in $Sm_{0.5}(Ca_{1-x}Sr_x)_{0.5}MnO_3$
Saurav Giri[1]*, Sk. Sabyasachi[1], S. Majumdar[1], S. Das[2] and V. S. Amaral[3], *[1]Solid State Physics, Indian Association for the Cultivation of Science, India; [2]Department of Physics and CICECO, University of Aveiro, Portugal; [3]Department of Physics and CICECO, University of Aveiro, India*

RH03 11B-NMR study on Shastry Sutherland system TbB_4
Tomoki Muto[1], Takayuki Goto[1], Akira Oosawa[1], Shunsuke Yoshii[2], Takahiko Sasaki[3], Shinji Michimura[4], Fumitoshi Iga[4] and Toshiro Takabatake[4], *[1]Department of Physics, Sophia University, Japan; [2]CINTS Tohoku University, Japan; [3]Institute for Materials Research, Tohoku University, Japan; [4]ADSM, Hiroshima University, Japan*

RH04 Magnetotransport property of the hole-doped delafossite $CuCr_{0.97}Mg_{0.03}O_2$ with a spin-3/2 antiferromagnetic triangular sublattice
Tetsuji Okuda[1]*, Satoshi Oozono[1], Takumi Kihara[2] and Masashi Tokunaga[2], *[1]Kagoshima University, Japan; [2]The University of Tokyo, ISSP, Japan*

RH05 (Moved to other session) Lifshitz transition with interactions in high magnetic fields: application to CeIn3
Pedro Schlottmann*, *Department of Physics, Florida State University, USA*

RH06 Novel colossal magnetoresistance in $NaCr_2O_4$
Hiroya Sakurai[1]*, Taras Kolodiazhnyi[1], Yuichi Michiue[2] and Eiji Takayama-muromachi[2], *[1]Superconducting Properties Unit, National Institute for Materials Science, Japan; [2]National Institute for Materials Science, Japan*

RH07 Low field study of Hall effect in GdB_6
M. A. Anisimov[1]*, A. V. Bogach[1], V. V. Glushkov[1], S. V. Demishev[1], N. A. Samarin[1], N. Yu. Shitsevalova[2], A. V. Levchenko[2], V. B. Filipov[2] and N. E. Sluchanko[1], *[1]Low Temperatures and Cryogenic Engineering Dept., A.M.Prokhorov General Physics Institute of RAS, Russia; [2]Institute for Problems of Materials Science NAS, Ukraine*

RH08 Theoretical study of structures and mechanical properties of M-type hexagonal ferrites $BaFe_{12}O_{19}$
Wonha Moon*, Soyeon Kim, Heejung Lee, Jaehoon Yeom, Sangwon Lee and Seok Bae, *LG innotek, Korea*

RH09 Nonlinear susceptibility of gadolinium near curie temperature
Takashi Shirane* and Shohei Sakurai, *Sendai National College of Technology, Japan*

RH10 Electron correlation and dynamical Jahn-Teller effect in orbitally degenerate system
Joji Nasu and Sumio Ishihara*, *Department of Physics, Tohoku University, Japan*

RH11 High-field NMR study on the charge in stability in quantum spin system $Cu_3Mo_2O_9$
Keita Misoka[1], Takayuki Goto[1]*, Haruhiko Kuroe[1], Tomoyuki Sekine[1], Takahiko Sasak[i2], Masashi Hase[3], Kunihiko Oka[4], Toshimitsu Ito$_4$ and Hiroshi Eisaki[4], *[1]Department of Phisics, Sophia University, Japan; [2]Institute for Materials Research, Tohoku University, Japan; [3]Department of Phisics, National Institute for Materials Science, Japan; [4]National Institute of Advanced Industrial Science and Technology, Japan*

RH12 Anisotropic spin excitations in spin-Peierls $CuGeO_3$
Kazuhiko Ikeuchi[1], Fumio Mizuno[2], Ryoichi Kajimoto[1], Yasuhiro Inamura[3], Mitsutaka Nakamura[3], Kenji Nakajima[3], Masaki Fujita[4], Kazuya Aizawa[3] and Masatoshi Arai[3], *[1]Research Center for Neutron Science and Technology, Comprehensive Research Organization for Science and Society, Japan; [2]Department of Physics, Tohoku University, Japan; [3]Neutron Science Section, J-PARC Center, Japan; [4]Institute for Material Research, Tohoku University, Japan*

RH13 Neutron inelastic scattering on spin-peierls system TiOBr
Tetsuya Yokoo[1], Shinichi Itoh[1], Daichi Kawana[1] and Jun Akimitsu[2], *[1]High Energy Accelerator Research Organization, Japan; [2]Aoyama Gakuin University, Japan*

RH14 Physical properties of the novel triangular-lattice silver oxides Ag_2MO_2 (M = Co, Ga, Rh)
Hiroyuki Yoshida and Masaaki Isobe, *National Institute for Materials Science, Japan*

RH15 Electrical and thermal transport properties of the polycrystalline $(Cr_{86}Ru_{14})1_{-x}V_x$ alloy system
Leelakrishna Reddy, Aletta Roletta Prinsloo, Charles Johannes Sheppard and Andre Micheal Strydom, *Physics, University of Johannesburg, South Africa*

RH16 Magnetic properties of the layered triangular-lattice antiferromagnets CsM(MoO$_4$)2 (M=V, Fe)
Masahiko Isobe and Yutaka Ueda, *ISSP, Univ. of Tokyo, Japan*

RH17 Kitaev-Heisenberg magnetism in honeycomb iridates A_2IrO_3(A=Li,Na)
Akihiko Kato[1], Tomohiro Takayama[2]* and Hidenori Takagi[3], *[1]Department of Applied Chemistry, University of Tokyo, Japan; [2]Department of Advanced Materials Science, University of Tokyo, Japan; [3]Department of Physics, University of Tokyo, Japan*

RH18 Effects of the annealing conditions on the magneto-transport properties of $La_{0.7}Sr_{0.3}Mn_{1+d}O_3$-manganese oxide composites
Sang-im Yoo[1]* and Hyo-jin Kim[2], *[1]Department of Materials Science and Engineering, Seoul national university, Korea; [2]Department of Materials Science and Engineering, Seoul National University, Korea*

RH19 Temperature dependence of spin lattice relaxation time of proton NMR in mixed antiferromagnets A_1-$xBxC_{l2}$-$2H_2O$
Tatsuichi Hamasaki[1], Kazuko Zenmyo[2] and Hidenori Kubo[2], *[1]Physics Department, Kyushu Sangyo University, Japan; [2]Fukuoka Institute of Technology, Japan*

RH20 Electronic Structure and magneto-optical properties of Co_2Mn_X alloys where X = Ge, Sn and Pb: a first-principles investigation in LDA+U approach
Tran Van Quang[1], Jae Il Lee[2] and Miyoung Kim[3], *[1]Dept. of Physics, Ajou University, Suwon 443-749, Korea; [2]Dept of Physics, Inha University, Incheon 402-751, Korea; [3]Division of Energy System Research, Ajou University, Korea*

RH21 2D Heisenberg antiferromagnetism in spin-orbit Mott insulator Sr_2IrO_4
Akiyo Matsumoto[1], Tomohiro Takayama[1] and Hide Takagi[2]*, *[1]Department of Advanced Materials, The University of Tokyo, Japan; [2]Department of Physics, The University of Tokyo, Japan*

RH22 Magnetoresistance and magnetic properties of oxygen deficient $(Sr,Y)(Fe,Co)O_3$ perovskites
Jean-marie Le Breton[1]*, Youssef Rizki[1], Yohann Breard[2], Luc Lechevallier[1] and Antoine Maignan[2], *[1]Groupe de Physique des Materiaux - UMR 6634, CNRS - Universite de Rouen, France; [2]CRISMAT, UMR 6508 CNRS, ENSICAEN - Universite de Caen, France*

RH23 High field element selective magnetometry in Erbium Iron garnet
Cornelius Strohm*, Thomas Roth, Peter J. E. M. Van Der Linden, Olivier Mathon and Sakura Pascarelli, *European Synchrotron Radiation Facility, 6 rue Jules Horowitz 38000 Grenoble, France*

RH24 THz and infrared excitation spectrum below the Jahn-Teller transition in $Sr_3Cr_2O_8$
Zhe Wang[1]*, Michael Schmidt[1], Franz Mayr[1], Diana Quintero-castro[2], A. T. M. Nazmul Islam[2], Bella Lake[2], Hans-albrecht Krug Von Nidda[1], Alois Loidl[1] and Joachim Deisenhofer[1], *[1]Experimental Physics 5, Intitute for Physics, Augsburg University, Germany; [2]Helmholtz-Zentrum Berlin fur Materialien und Energie, Germany*

RH25 High-field multi-frequency ESR in the S=2 Heisenberg antiferromagnetic chain compound $MnCl_3$(bpy)
Masayuki Hagiwara[1]*, Shojiro Kimura[2], Yuichi Idutsu[1] and Zentaro Honda[3], *[1]KYOKUGEN, Osaka University, Japan; [2]IMR, Tohoku University, Japan; [3]Graduate School of Science and Engineering, Saitama University, Japan*

RI: Phase transition

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Pinaki Sengupta (Nanyang Technological University, Singapore)

RI01 Distribution of magnetization in the random ising models.
Kazuyuki Matsumoto[1], Tatsuya Yoshimoto[1], Hiroki Mizuno[1], Takuya Okada[1], Yosuke Ishikawa[1] and Yasuhiro Akutsu[2] *[1]Department of Applied Sciences, Muroran Institute of Technology, Japan; [2]Department of Physics, Graduate School of Sciences, Osaka University, Japan*

RI02 Berezinskii-Kosterlitz-Thouless trasition in two-dimensional p-state clock model
Yuta Kumano*, Yusuke Tomita and Masaki Oshikawa, *ISSP, Japan*

RI03 Influence of interplanar coupling on the entropy and specific heat of the bilayer ferromagnet
Karol Szalowski and Tadeusz Balcerzak*, *Department of Solid State Physics, University of Lodz, Poland*

RI04 Nontrivial ferrimagnetism of the heisenberg model on the union jack strip lattice
Tokuro Shimokawa* and Hiroki Nakano, *University of Hyogo, Japan*

RI05 Control of quantum critical points in bond disordered spin ladder materials
S Ward[1]*, H Ryll[2], D Biner[3], K W Kramer[3], K Kiefer[2], D F Mcmorrow[1] and Ch Ruegg[4], *[1]London Centre for Nanotechnology, University College London, United Kingdom; [2]Helmholtz Zentrum Berlin, Germany; [3]Chemistry and Biochemistry, University of Bern, Switzerland; [4]Laboratory for Neutron Scatering, Paul Scherrer Institut, Switzerland*

RI06 Triangular spin tubes with bond randomness
Yoko Miura[1]* and Hirotaka Manaka[2], *[1]Suzuka National College of Technology, Japan; [2]Department Graduate School of Science and Engineering, Kagoshima University, Japan*

RI07 A new approach to the characterization of aging, rejuvenation, and memory effects in magnetic systems
Hiroaki Mamiya* and Shigeki Nimori, *National Institute for Materials Science, Japan*

RI08 The linear soliton generated by Z_2 vortex in quantum antiferromagnet
Pawel Rusek, *Institute of Physics, Wroclaw University of Technology, PL, Poland*

RI09 Exact results of a mixed spin-1/2 and spin-1 Ising model with bilinear and three-site four-spin interactions on decorated planar lattices
Michal Jascur[1]*, Viliam Stubna[1], Karol Szalowski[2] and Tadeusz Balcerzak[2], *[1]Institute of Physics, P.J. Safarik University in Kosice, Park Angelinum 9, 040 13 Kosice, Slovak; [2]Department of Solid State Physics, University of Lodz, ul. Pomorska 149/153, 90-236 Lodz, Poland*

RI10 Anomalous spin diffusion on the two-dimensional percolating network in $Rb_2Mn_{0.6}Mg_{0.4}F_4$
Shinichi Itoh*, *Institute of Materials Structure Science, High Energy Accelerator Research Organization, Japan*

RI11 Quantum phase transitions in 1/3 plateau of the quantum spin tube
Kouichi Okunishi[1]*, Masahiro Sato[2], Toru Sakai[3], Kiyomi Okamoto[4] and Chigaku Itoi[5], *[1]Department of Physics, Niigata University, Japan; [2]Department of Physics and Mathematics, Aoyama Gakuin University, Japan; [3]Japan Atomic Energy Agency, SPring-8 and University of Hyogo, Japan; [4]Department of Physics, Tokyo Institute of Technology, Japan; [5]Department of Physics, Nihon University, Japan*

RI12 Cs_2CoC_{l4} - an effective XY-spin-½ compound in transverse magnetic fields
Oliver Breunig[1]*, Eran Sela[2], Benjamin Buldmann[2], Markus Garst[2], Petra Becker[3], Ladislav Bohaty[3], Ralf Muller[1] and Thomas Lorenz[1], *[1]II. Physikalisches Institut, University of Cologne, Germany; [2]Institut fur Theoretische Physik, University of Cologne, Germany; [3]Institut fur Kristallographie, University of Cologne, Germany*

RI13 Critical phenomena at the antiferromagnetic phase transition of Azurite $Cu_3(CO_3)2(OH)2$
Pham Thanh Cong, Bernd Wolf*, Rudra Sekhar Manna, Andreas Bruhl, Sebastian Kohler and Michael Lang, *Physics Institute, Goethe-University Frankfurt (M), SFB/TR 49, D-60438 Frankfurt (M), Germany*

RI14 Dynamical properties of supersolid states in spin systems
Yuta Murakami*, Takahi Oka and Hideo Aoki, *Physics, University of Tokyo, Japan*

RI15 Magnetic phase transition of antiferromagnetic $Cs_3V_2Cl_9$
Hikomisu Kikuchi[1], Takashi Tanaka[1], Yutaka Fujii[2], Akira Matsuo[3] and Koichi Kindo[3], *[1]Department of Applied Physics, University of Fukui, Japan; [2]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [3]ISSP, The University of Tokyo, Japan*

RI16 Novel field-induced quantum phase transition of the kagome-lattice antiferromagnet
Toru Sakai[1]* and Hiroki Nakano[2], *[1]SPring-8, Japan Atomic Energy Agency, Japan; [2]Graduate School of Material Science, University of Hyogo, Japan*

RI17 **Antiferromagnetic phase transition of K-Rb alloy nanoclusters incorporated in sodalite**
Takehito Nakano*, Yuko Ishida, Atsufumi Hanazawa and Yasuo Nozue, *Department of Physics, Graduate School of Science, Osaka University, Japan*

RI18 **A novel scaling method for critical phenomena studies: finite size effects**
Joao S Amaral[1]*, Jouke R Heringa[2], Ekkes Bruck[2] and Vitor S Amaral[1], *[1]CICECO and Dept. of Physics, Universidade de Aveiro, Portugal; [2]Delft University of Technology, Faculty of Applied Sciences, 2626 Delft, Netherlands*

RI19 **The transverse-field quantum Ising model on infinite-dimensional structures using quantum Monte Carlo method and finite-size scaling**
Su Do Yi[1], Seung Ki Baek[2], Jaegon Um[2] and Beom Jun Kim[1]*, *[1]Department of Physics and BK21 Physics Research Division, Sungkyunkwan University, Suwon 440-746, Korea; [2]School of Physics, Korea Institute of Advanced Study, Korea*

RI20 **Study of cluster heterogeneity scaling in the two-dimentional Ising model**
Woo Seong Jo[1], Su Do Yi[1], Seung Ki Baek[2] and Beom Jun Kim[1]*, *[1]Department of Physics and BK21 Physics Research Division, Sungkyunkwan University, Suwon 440-746, Korea; [2]School of Physics, Korea Institute of Advanced Study, Seoul 130-722, Korea*

RI21 **Zero-temperature phase transition in a one-dimensional Ising ferromagnet using Glauber dynamics with a synchronous update**
Il Gu Yi and Beom Jun Kim*, *Physics, Sungkyunkwan University, Korea*

RI22 **Stochastic treatment of magnetic moment relaxation in spin echo models**
Maxim Pavlovich Shlykov, *National Research Centre 'Kurchatov Institute', Russia*

RJ: Vortex dynamics

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Ki-suk Lee (UNIST, Korea)

RJ01 **Vortex core switching on notched circular disks**
Tomonori Sato* and Yoshinobu Nakatani, *University of Electro-Communications, Japan*

RJ02 **Effect of oersted field on magnetic vortex core gyration**
Tomonori Sato[1]*, Yoshinobu Nakatani[1] and Teruo Ono[2], *[1]University of Electro-Communications, Japan; [2]Kyoto University, Japan*

RJ03 **Mutual spin-transfer torque in vortex nano-oscillators**
Xiaolei Wang, Ning Wang and Antonio Ruotolo, *Department of Physics and Materials Science, City University of Hong Kong, Hong Kong*

RJ04 **Key role of temperature in ferromagnetic bloch point simulations**
Kristof M. Lebecki[1]*, Denise Hinzke[1], Oksana Chubykalo-fesenko[2] and Ulrich Nowak[1], *[1]Department of Physics, University of Konstanz, Germany; [2]Instituto de Ciencia de Materiales de Madrid, CSIC, Cantoblanco, 28049 Madrid, Spain*

RJ05 **Polarization-selective signal propagation in a chain of vortices**
Andreas Vogel[1]*, Michael Martens[1], Markus Weigand[2] and Guido Meier[1], *[1]Institut fuer Angewandte Physik und Zentrum fuer Mikrostrukturforschung, Universitaet Hamburg, Germany; [2]Max-Planck-Institut fuer Intelligente Systeme, Germany*

RJ06 **Theoretical study on frequency of vortex-antivortex pairs rotation in a magnetic thin-film with multi-contacts**
Hiroshi Tsukahara, Hiroko Arai and Hiorshi Imamura*, *AIST, Japan*

RJ07 **Parametric excitation and subcritical phase-locking in spin-transfer vortex oscillators**
Paolo Bortolotti[1]*, C. Serpico[2], E. Grimaldi[1], J. Grollier[1], V. Cros[1], A. Fukushima[3], H. Kubota[3], K. Yakushiji[3], S. Yuasa[3], K. Ando[3] and A. Fert[1], *[1]Unite Mixte de Physique CNRS/Thales, France; [2]Dipartimento di Ingegneria Elettrica,Universita di Napoli 'Federico II', Italy; [3]National Institute of Advanced Industrial Science and Technology (AIST), Japan*

RJ08 **Micromagnetic simulation for controlling the magnetic vortex chirality by current-induced Oersted field**
Syuta Honda[1]*, Hiroyoshi Itoh[2], Satoshi Yakata[3] and Takashi Kimura[3], *[1]Faculty of Pure and Applied Sciences, University of Tsukuba, Japan; [2]Department of Pure and Applied Physics, Kansai University, Japan; [3]Advanced Electronics Research Division, INAMORI Frontier Research Center, Kyushu University, Japan*

RJ09 **Stability of the vortex structure on the core switching by AC current**
Tomonori Sato* and Yoshinobu Nakatani, *University of Electro-Communications, Japan*

RJ10 **Time-averaged observation of magnetic vortex resonated in square-shaped NiFe films**
Motoi Kodama[1], Koji Sekiguchi[2] and Yukio Nozaki[3]*, *[1]Department of Physics, Keio University, Japan; [2]Department of Physics, Keio University, JST PRESTO, Japan; [3]Department of Physics, Keio University, JST CREST, Japan*

RJ11 **Diverging-converging spin vortex pairs in biquadratically interlayer exchange coupled elements**
Sebastian Wintz[1]*, Christopher Bunce[1], Anja Banholzer[1], Michael Koerner[1], Sibylle Gemming[1], Artur Erbe[1], Joerg Raabe[2], Christoph Quitmann[2] and Juergen Fassbender[1], *[1]Helmholtz-Zentrum Dresden-Rossendorf, Germany; [2]SLS, Paul Scherrer Institut, Switzerland*

RJ12 **Magnetic vortex dynamics in exchange-biased micron-sized structures**
Sofia De Oliveira Parreiras[1]*, Flavio Garcia[2] and Maximiliano Delany Martins[1], *[1]Applied Physics Laboratory, CDTN/CNEN, Brazil; [2]Laboratorio Nacional de Luz Sincrotron, Brazil*

RJ13 **Magnetic Vortex Echo**
Flavio Garcia[1]*, Joao Paulo Sinnecker[2], Erico Novais[2] and Alberto Passos Guimaraes[2], *[1]Brazilian Sinchrotron Light Laboratory, Brazil; [2]Centro Brasileiro de Pesquisas Fisicas, Brazil*

RJ14 **Origin of the dipolar coupling between vortex-state disks**
Ki-suk Lee and Sang-koog Kim*, *Seoul National University, Korea*

RJ15 **Switching dynamics of vortex cores in nanodots by azimuthal-spin-wave-mode excitation**
Myoung-woo Yoo, Jehyun Lee and Sang-koog Kim*, *National Creative Research Initiative Center for Spin Dynamics & Spin-Wave Devices & Nanospinics Lab, Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Seoul, Korea*

RJ16 **Logic operations based on magnetic-vortex-state networks**
Hyunsung Jung[1], Youn-seok Choi[1], Dong-soo Han[1], Young-sang Yu[1], Ki-suk Lee[1], Mi-young Im[2], Peter Fischer[2] and Sang-koog Kim[1]*, *[1]National Creative Research Initiative Center for Spin Dynamics & Spin-Wave Devices & Nanospinics Lab, Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Seoul, Korea; [2]Center for X-ray Optics, Lawrence Berkeley National Laboratory, Berkeley, CA 94720, USA*

RJ17 **Vortex-gyration-mediated magnonic crystals**
Dong-soo Han and Sang-koog Kim*, *National Creative Research Initiative Center for Spin Dynamics & Spin-Wave Devices & Nanospinics Lab, Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Seoul, Korea*

RJ18 **Vortex-gyration transfer rate and energy attenuation in coupled nanodisks**
Ji-hye Kim, Ki-suk Lee, Hyunsung Jung, Dong-soo Han and Sang-koog Kim*, *National Creative Research Initiative Center for Spin Dynamics & Spin-Wave Devices & Nanospinics Lab, Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Seoul, Korea*

RJ19 Effect of spin-motive force and spin-diffusion on a vortex dynamics
Jung-hwan Moon[1], Aurelien Manchon[2] and Kyung-jin Lee[1]*, *[1]Department of Materials Science and Engineering, Korea University, Seoul 136-713, Korea; [2]Materials Science and Engineering, Division of Physical Science and Engineering, KAUST, Thuwal 23955, Saudi Arabia*

RJ20 Soft X-ray microscopy of non-linear magnetic vortex core motion
Peter Fischer[1], Brooke Mesler[1], Mi-young Im[1] and Kristen Buchanan[2], *[1]CXRO, LBNL, USA; [2]Colorado State U, USA*

RK: Ultrafast dynamics

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperosn: Sug-Bong Choe (Seoul National University, Korea)

RK01 Dynamics of successive minor hysteresis loops
Alexander Gerber and Yoav W Windsor, *School of Physics and Astronomy, Tel Aviv University, Israel*

RK02 Gilbert damping constants of exchange biased NiFe/FeMn bilayers
Jungbum Yoon, Hyeok-cheol Choi and Chun-yeol You*, *Department of Physics, Inha Universirty, Korea*

RK03 Non-linear susceptibility and influence of the applied magnetic field on ZFC/FC curves
Florent Tournus*, Arnaud Hillion, Alexandre Tamion and Veronique Dupuis, *LPMCN, CNRS & Univ. Lyon 1, France*

RK04 On the relation between the magnetoelastic effect and the damping constants of $(Ni\text{-}Fe)_{1-x}M_x$ (M = Ag, Cr, Ga, Au, Pd, and Pt) films
Yasushi Endo*, Yoshio Mitsuzuka, Yutaka Shimada and Masahiro Yamaguchi, *ECEI, Graduate School of Engineering, Tohoku University, Japan*

RK05 Ultrafast magnetization dynamics of ferromagnetic systems induced by mid infrared laser pulses
Amani Zagdoud, Mircea Vomir, Michele Albrecht and Jean-yves Bigot, *IPCMS, France*

RK06 Ferromagnetic resonance of bilayer CoFeB/NiFeSiB thin film
Sanghoon Jung[1], Chang Ho Choi[1], Jungbum Yoon[2], Chun-yeol You[2], Seung Hyun Kim[3], Young Keun Kim[3] and Myung-hwa Jung[1], *[1]Sogang University, Korea; [2]Inha University, Korea; [3]Korea University, Korea*

RK07 Observation of non-kittel ferromagnetic resonance in Co/Cu multilayer system
Faris B. Abdul Ahad[1], Yu-che Chiu[1], Shang-fan Lee[2]* and Dung S Hung[3], *[1]Institute of Physics, Academia Sinica, Taiwan; [2]Institute of Physics, Academia Sinica, Taiwan; [3]Information and Telecommunications Engineering, Ming Chuan University, Taiwan*

RK08 Neighboring layer dependence of ultrafast thermo-magnetic property in GdFeCo films
Arata Tsukamoto*, Tetsuya Sato, Shingo Toriumi, Ryutarou Shimizu and Akiyoshi Itoh, *Electronics & Computer Science, College of Science and Technology Nihon University, Japan*

RK09 Magnetization dynamics in perpendicular magnetic anisotropy CoFeB/MgO system
Jeong Woo Sohn[1], Ji-wan Kim[1], Kyeong-dong Lee[1], Hyon-seok Song[1], Il-jae Shin[2], Byoung-chul Min[2], Chun-yeol You[3] and Sung-chul Shin[4]*, *[1]Department of Physics, Center for Nanospinics of Spintronic Materials, KAIST, Korea; [2]Center for Spintronics Research, KIST, Korea; [3]Department of Physics, Inha University, Korea; [4]Center for Nanospinics of Spintronic Materials, KAIST, Department of Emerging Materials Science, DGIST, Korea*

RK10 Composition dependence of the gilbert damping constant for co-based Heusler alloy
Yuichi Kasatani[1], Shinya Yamada[2], Masanobu Miyao[3], Kohei Hamaya[4], Hiroyoshi Ito[5] and Yukio Nozaki[6]*, *[1]Department of Physics, Keio University, Japan; [2]Department of Electronics, Kyushu University, Japan; [3]Department of Electronics, Kyushu University / CREST, JST, Japan; [4]Department of Electronics, Kyushu University / PREST, JST, Japan; [5]Department of Pure and Applied Physics, Kansai University / CREST, JST, Japan; [6]Department of Physics, Keio University / CREST JST, Japan*

RK11 Detection of picosecond magnetization dynamics of 50 nm magnetic dots down to the single nanodot regime
Bivas Rana, Dheeraj Kumar, Saswati Barman, Semanti Pal, Yasuhiro Fukuma, Yoshichika Otani and Anjan Barman* *Condensed Matter Physics and Material Sciences, S. N. Bose National Centre For Basic Sciences, India*

RK12 Femtosecond demagnetization in Ni: Electron-phonon spin flip scattering from first principles
Karel Carva[1], Marco Battiato[2] and Peter M Oppeneer[2], *[1]DCMP, Charles University in Prague, Czech Republic; [2]Uppsala University, Sweden*

RK13 Ultrafast magneto-acoustic pulses in a nickel film
Jiwan Kim, Mircea Vomir and Jean-yves Bigot*, *Physics, IPCMS, CNRS, France*

RK14 Minimal precessional and switching currents for relaxing-precessional magnetization reversal within a spin valve
Jui-hang Chang*, Hao-hsuan Chen and Ching-ray Chang, *Physics, National Taiwan University, Taiwan*

RK15 Time dependent dichroism induced near the surface plasmon of Au nanoparticles
Jean-yves Bigot[1]* and Minji Gwon[2], *[1]Institute de Physique et Chimie des Materiaux de Strasbourg, CNRS, Universite de Strasbourg, Korea; [2]Ewha Womans University, Korea*

RK16 The effect of surface anisotropy on the switching of a particle magnetic moment
Shuang Guo and An Du*, *Physical department, Northeastern University, China*

RK17 Magnetization dynamics of GdFeCo nanostructures revealed with PEEM
Souliman El Moussaoui[1]*, Loic Le Guyader[1], Michele Buzzi[1], Elena Mengotti[1], Laura J. Heyderman[1], Frithjof Nolting[1], Thomas A. Ostler[2], Joe Barker[2], Richard F. L. Evans[2], Roy Chantrell[2], Arata Tsukamoto[3], Akiyoshi Itoh[3], Andrei Kirilyuk[4], Theo Rasing[4] and Alexey V. Kimel[4], *[1]Paul Scherrer Institut, Switzerland; [2]Department of Physics, University of York, United Kingdom; [3]Nihon University, Japan; [4]Radboud University Nijmegen, Institute for Molecules and Materials, Netherlands*

RK18 A study of magnetic domain and magnetization reversal in L-shaped Py
S. S. Lee, Wondong Kim, Byong Sun Chun and Chanyong Hwang*, *Korea Research Institute of Standards and Science, Korea*

RK19 Ultrafast dynamics of ferromagnetic copd thin film by various polarized probe beam
S. H. Jung[1], M. H. Jung[1], Jin Pyo Hong[2], Won Dong Kim[3], Chanyong Hwang[3]* and Joo In Lee[3], *[1]Department of Physics, Sogang University, Korea; [2]Department of Pysics, Hanyang University, Korea; [3]Center for Nano-imasing Technology, Korea Research Institute of Standards and Science, Korea*

RK20 Low temperature time domain THz spectroscopy of terbium gallium garnet crystals
Rostislav V. Mikhaylovskiy*, Euan Hendry, Feodor Y. Ogrin and Volodymyr V. Kruglyak, *School of Physics, University of Exeter, United Kingdom*

RK21 Ferromagnetic resonance of a single micron dot using vector network analyzer
Kazuto Yamanoi[1], Satoshi Yakata[2], Takashi Kimura[2] and Takashi Manago[1]*, *[1]Department of Applied Physics, Fukuoka University, Japan; [2]Inamori Frontier Research Center, Kyusyu University, Japan*

RK22 Relation between gilbert damping constants and perpendicular magnetic anisotropy in Ti buffered Co/Ni multilayers
Hyonseok Song[1], Kyeong-dong Lee[1], Jeong-woo Sohn[1], See-hun Yang[2], Stuart S.p. Parkin[2], Chun-yeol You[3] and Sung-chul Shin[4]*, *[1]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, Daejeon 305-701, Korea; [2]IBM Research Division, Almaden Research Center, San Jose, California 95120, USA; [3]Department of Physics, Inha University, Incheon 402-751, Korea; [4]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, Daejeon 305-701, Department of Emerging Materials Science, DGIST, Daegu 711-873, Korea*

RK23 Chaotic motion of magnetic domain structure under alternate field
Michinobu Mino* and Yousuke Yamamoto, *Department of Physics, Okayama University, Japan*

RK24 Demagnetization dynamics observed by spin-resolved ultrafast x-ray photoemission
Thomas Michlmayr, *Physics, ETH Zurich, Switzerland*

RL: Spin electronics I

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairpersons: Christopher Marrows (University of Leeds, UK)
J. Beach (MIT, USA)

RL01 Synchronized modes of in-plane/out-of-plane spin-torque oscillators in MTJ with synthetic ferrimagnetic free layer
Masahiko Ichimura[1]*, Ryoko Sugano[1], Saburo Takahashi[2] and Sadamichi Maekawa[3], *[1]Central Research Lab., Hitachi, Ltd. and JST-CREST, Japan; [2]IMR, Tohoku University and JST-CREST, Japan; [3]Advanced Science Research Center, Japan Atomic Energy Agency and JST-CREST, Japan*

RL02 Interface material effects on magnetic anisotropy and its electric field induced variation in thin films
Yuusaku Taguchi[1]*, Haruki Kato[1], Shinya Haraguchi[1], Masahito Tsujikawa[2], Masafumi Shirai[3] and Tatsuki Oda[4]
[1]Graduate School of Natural Sciences and Technology, Kanazawa University, Japan; [2]CSIS, Tohoku University, Japan; [3]CSIS, Tohoku University & RIEC, Tohoku University, Japan; [4]Institute of Science and Engineering, Kanazawa University, Japan

RL03 Effect of spin relaxation rate on the interfacial spin depolarization in ferromagnet/oxide/semiconductor contacts
Kun-rok Jeon[1], Byoung-chul Min[2], Youn-ho Park[2], Young-hun Jo[3], Hun-sung Lee[1], Chang-yup Park[1] and Sung-chul Shin[1]*, *[1]Korea Advanced Institute of Science and Technology (KAIST), Korea; [2]Korea Institute of Science and Technology (KIST), Korea; [3]Korea Basic Science Institute (KBSI), Korea*

RL04 Spin-pumping and revelation of inverse spin-Hall effect in n-type Si at room temperature
Mariko Koike*, Eiji Shikoh, Teruya Shinjo and Masashi Shiraishi, *Osaka University, Japan*

RL05 Critical current density and domain wall mobility in nanowires with exchange coupled hard-soft magnetic layers
Xiaoxi Liu[1]*, Liangqiu Gao[2] and Akimitsu Morisako[2], *[1]Department of Information Engineering, Shinshu University, Japan; [2]Shinshu University, Japan*

RL06 Spin Seebeck Effect in SiO_2/Py structures
Sang-il Kim[1], Seung-young Park[2], Byoung-chul Min[3], Younghun Jo[2], Kyung-jin Lee[1]* and Kyung-ho Shin[3], *[1]Department of Materials Science and Engineering, Korea University, Seoul 136-713, Korea; [2]Nano Material Research Team, Korea Basic Science Institute, Daejeon 305-333, Korea; [3]Korea Institute of Science and Technology (KIST), Seoul 136-791, Korea*

RL07 Domain wall pinning by stray field from NiFe on Co/Ni nano-wire
Ryo Hiramatsu[1], T. Koyama[1], D. Chiba[1], S. Fukami[2], N. Ishiwata[2], Y. Nakatani[3] and T. Ono[1]*, *[1]Institute for Chemical Research, Kyoto University, Japan; [2]Green Innovation Research Laboratories, NEC Corporation, Japan; [3]University of Electro-communications, Japan*

RL08 Compositional dependence of critical current density for spin transfer torque switching of amorphous GdFeCo for thermally assisted MRAM
Bing Dai[1]*, Takeshi Kato[1], Satoshi Iwata[1] and Shigeru Tsunashima[2], *[1]Department of Quantum Engineering, Nagoya University, Nagoya 464-8603, Japan; [2]Department of Research, NISRI, Yotsuya-dori 1-13, Chikusa-ku, Nagoya, 464-0819, Japan*

RL09 Microscopic theory of magnon-drag thermodynamic transport in ferromagnetic metals
Daisuke Miura* and Akimasa Sakuma, *Department of Applied Physics, Tohoku University, Japan*

RL10 Electric-field control of magnetic properties in cobalt by means of electric double layer
Kazutoshi Shimamura[1], Daichi Chiba[2], Masashi Kawaguchi[1], Shimpei Ono[4], Shunsuke Fukami[5], Nobuyuki Ishiwata[5], Kensuke Kobayashi[3] and Teruo[1]*, *[1]Institute for Chemical Research, Kyoto University, Japan, [2]Institute for Chemical Research, Kyoto University and PRESTO JST, Japan, [3]Institute for Chemical Research, Kyoto University and Osaka University, Japan, [4]Central Research Institute of Electric Power Industry, Japan, [5]NEC Corporation, Japan*

RL11 Spin-torque magnetic resonance of superparamagnetic Fe nano-particles in Fe/MgO/Fe magnetic tunnel junctions
Shinji Miwa, Norikazu Mizuochi, Teruya Shinjo and Yoshishige Suzuki, *Graduate School of Engineering Science, Osaka University, Japan*

RL12 Spin Coulomb drag and optical excitations in low dimensional systems
Irene D'amico[1] and Carsten A. Ullrich[2], *[1]Physics, University of York, United Kingdom; [2]Physics, University of Missouri-Columbia, USA*

RL13 Perpendicular magnetic property and magnetic damping of very thin CoFeB films
Mikihiko Oogane*, Miho Kubota, Kei Sato, Hiroshi Naganuma and Yasuo Ando, *Applied Physics, Tohoku University, Japan*

RL14 Perpendicular magnetic tunnel junctions with TbFeCo-based pinned layer and CoFeB-MgO free layer
Jungmin Han[1]*, Byoung-chul Min[1], Kyung-jin Lee[2] and Kyung-ho Shin[1], *[1]Spin Device Research Center, Korea Institute of Science and Technology, Seoul 136-791, Korea; [2]Department of Materials Science, Korea University, Seoul 136-701, Korea*

RL15 Thickness and magnetic anisotropy dependence of anomalous Nernst effect in $L1_0$-FePt films
Kota Hasegawa, Masaki Mizuguchi*, Ken-ichi Uchida, Eiji Saitoh and Koki Takanashi, *Institute for Materials Research (IMR), Tohoku University, Japan*

RL16 Spin-torque efficiency and magnetization reversal in three-dimensional Rashba materials
Kazuhiro Tsutsui and Shuichi Murakami*, *Dept. of Physics, School of Science, Tokyo Institute of Technology, Japan*

RL17 A new circuit model for spin-torque oscillator including the perpendicular torque of magnetic tunnel junction
Hyein Lim, Sora Ahn, Miryeon Kim, Jihye Shin, Jinju Lee, Seungjun Lee and Hyungsoon Shin*, *Electronic Engineering, Ewha Womans University, Korea*

RL18 Current induced localized domain wall oscillators in NiFe /Cu /NiFe nano-stripe
Liang-juan Chang[1], Pang Lin[2] and Shang-fan Lee[1]*, *[1]Institute of Physics, Academia Sinica, Taiwan; [2]Department of Materials Science & Engineering, National Chiao Tung University, Taiwan*

RL19 Current induced transverse field versus Joule heating in Co/Pd nanowires
Mahdi Jamali, Xuepeng Qiu, Kulothungasagaran Narayanapillai and Hyunsoo Yang*, *Electrical and Computer Engineering, National University of Singapore, Singapore*

RL20 Improvement of generation efficiency of pure spin current using multi-terminal spin injection
Shaojie Hu, Tatsuya Nomura, Seiji Nonoguchi and Takashi Kimura*, *Advanced Electronics Research Division, INAMORI Frontier Research Center, Kyushu University., Japan*

RL21 Electrical transport properties of Co_2MnSi Schottky diode
In-bok Baek[1], Xianhong Li[1], Seongjae Lee[1]*, Chil Seong Ah[2], Jong-heon Yang[2], Chan Woo Park[2], Han Young Yu[2], Moongyu Jang[2] and Gun Yong Sung[2], *[1]Department of Physics, Research Institute for Natural Sciences, Hanyang University, Seoul, 133-791, Korea; [2]Electronics and Telecommunications Research Institute (ETRI), Daejon, 305-700, Korea*

RL22 Negative electron-beam resist hard mask ion beam etching process for the fabrication of nanoscale spin transfer torque magnetic random access memory device
Hyungyu Lee[1], Daehong Kim[1], Bongho Kim[1], Sungwoo Chun[1], Seonjun Choi[1] and Seung-beck Lee[2]*, *[1]Department of Electronic Engineering, Hanyang University, Korea; [2]Institute of Nano Science and Technology, Hanyang University, Korea*

RL23 Magnetization reversal process of a Py nanodot under pure spin current injection
Tatsuya Nomura, Seiji Nonoguchi and Takashi Kimura*, *Kyushu University, Japan*

RL24 Spin transfer effect in FePt nanowires: controlling the stochasticity of domain wall depinning using constrictions
Jean-philippe Attane[1], Van Dai Nguyen[1], Alain Marty[1], Lucien Notin[1], Cyrille Beigne[1], Juan Carlos Rojas-sanchez[1], Stefania Pizzini[2] and Laurent Vila[1], *[1]Universite Joseph Fourier, BP 53, 38041, Grenoble and INAC/ CEA Grenoble, 17 avenue des Martyrs, France; [2]Institut Neel, CNRS, 25 avenue des Martyrs, 38042 Grenoble, France*

RL25 Electric field effect on magnetic coercivity of $Fe_3O_4/BaTiO_3$ heterostructures
Tomoyasu Taniyama*, Taiichiro Nozaki, Yasuhiro Shirahata, Gorige Venkataiah and Mitsuru Itoh, *Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*

RL26 Dependence of current-induced effective rashba field and perpendicular magnetic anisotropy on annealing temperature
Ki-seung Lee[1], Byung Chul Min[1], Kyung Jin Lee[2]* and Kyung-ho Shin[1], *[1]Spin Convergence Research Center, Korea Institute of Science and Technology, Korea; [2]Departments of Materials Science and Engineering, Korea University, Korea*

RL27 Spin motive force driven by magnetization dynamics
Junichiro Ohe, *Toho University, Japan*

RL28 Electrical detection of the spin Hall effects in the InAs quantum well structure
Tae Young Lee, Joonyeon Chang*, Hyun Cheol Koo, Hyung-jun Kim and Suk Hee Han, *Korea Institute of Science and technology, Korea*

RL29 Bias-voltage controlled tunneling resistance in a ferromagnet-metal-insulator-ferromagnet tunneling junction
Sui-pin Chen*, *Department of Electrophysics, National Chiayi University, Taiwan*

RL30 A highly (001) textured Ge/MgO/bcc-ferromagnet system prepared by ultra-high vacuum sputtering
Soogil Lee[1], Sanghoon Kim[1], Jungho Ko[1], Sangho Lee[1], Jangyup Son[1], Seung-heon Chris Baek[2], Seok-hee Lee[2] and Jongill Hong[1]*, *[1]Materials Science and Engineering, Yonsei University, Seoul 120-749, Korea; [2]Dept. of Electrical Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, 305-701, Korea*

RL31 Electrical spin injection and detection in GaAs with ferromagnetic metal/MgO junctions
Seong Hoon Shim[1], Kyung-ho Kim[1], Hyung-jun Kim[1], Yun-hi Lee[2] and Joonyeon Chang[1]*, *[1]Spin Convergence Research Center, Korea Institute of Science and Technology, Korea; [2]Department of Physics, Korea University, Korea*

RL32 Transistorless 3D STT-MRAM Architecture
Weizhong Wang*, *University of Wisconsin - Milwaukee, USA*

RM: Theoretical calculation

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: H. Tsuchiura (Tohoku University, Japan)

RM01 Collision of cobalt atom with Alq3 molecule thin film: a molecule dynamics study
Yun-peng Wang, Ling-ling Tao and Xiu-feng Han*, *Institute of Physics, Chinese Academy of Sciences, China*

RM02 Magnetism and Electronic Structures of SiC nanoribbons: Role of defects
Gul Rahman[1]* and J. M. Morbec[2], *[1]Department of Physics, Quaid-i-Azam University,Islamabad, Pakistan; [2]Instituto de Ciencias Exatas, Universidade Federal de Alfenas, 37130-000, Alfenas, MG, Brazil, Brazil*

RM03 Bulk and surface half-metallic ferromagnetism in transition-metal chalcogenides with rocksalt phase from first-principles calculations
Guoying Gao* and Kailun Yao, *School of Physics, Huazhong University of Science and Technology, China*

RM04 (Upgraded to oral) Magneto-transport properties of Fe thin films in an external electric field
Kohji Nakamura[1]*, T. Akiyama[1], T. Ito1, M. Weinert[2] and A. J. Freemnan[3], *[1]Physics Engineering, Mie University, Japan; [2]Physics, University of Wisconsin-Milwaukee, USA; [3]Physics and Astronomy, Northwestern University, USA*

RM05 Role of interfacial B impurity in magnetocrystalline anisotropy at MgO/Fe interface
Koji Hotta*, Kohji Nakamura, Toru Akiyama and Tomonori Ito, *Mie University, Japan*

RM06 First-principles study on magnetic anisotropy of Co/Pt(111) film in electric field
Sho Yasuda* and Shugo Suzuki, *Division of Materials Science, Faculty of Pure and Applied Sciences, University of Tsukuba, Japan*

RM07 Magnetic ground state of TM/Graphene/TM films
Dongyoo Kim, Arqum Hashmi and Jisang Hong*, *Department of Physics, Pukyong National University, Korea*

RM08 A model of chain of ellipsoid-rings for magnetic nanotubes
Sen Yang*, Junfeng Gong and Xiaoping Song, *Department of Materials Physics, Xi'an Jiaotong University, China*

RM09 First-principles GGA+U calulations of half-metallicity in wurtzite NiO/ZnO(0001) superlattices
X. H. Zhou, *National Laboratory for Infrared Physics, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China*

RN: Magnetic nanoparticles

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: H. Mamiya (NIMS, Japan)

RN01 Magnetic properties of La doped nanocrystalline Z-type ferrite nanopowders synthesized via co-precipitation method
Mohamed M. Rashad[1]*, M. Rasly[1], H. M. Elsayed[2], A. A. Satter[2] and I. A. Ibrahim[1], *[1]Advanced Materials Department, Central Metallurgical Research and Development Institute, Egypt; [2]Physics Department, Ain Shams University, Egypt*

RN02 Magnetic properties of Fe-doped NiO nanoparticles
Akinobu Kurokawa*, Takuya Yanoh, Shinya Yano, Hiromasa Takeuchi, Kazuki Onuma, Takaya Kondo, Kazunari Miike, Toshiki Miyasaka and Yuko Ichiyanagi, *Physics, Yokohama National University, Japan*

RN03 **Uniaxial strain effects on spinel ferrite nanoparticles containing Nd and B elements**
Masaki Mito[1], Seiya Saisho[2], Hiroyuki Deguchi[1], Takashi Iwamoto[3] and Atsushi Takahara[4], *[1]Department of Basic Science, Kyushu Institute of Technology, Japan; [2]Department of Applied Science for Integrated System Engineering, Kyushu Institute of Technology, Japan; [3]Institute for Sustainability Research and Education, Hosei University, Japan; [4]Institute for Materials Chemistry and Engineering, Kyushu University, Japan*

RN04 **The magnetic proximity effect in Fe_3O_4 core/γ-Mn_2O_3 shell nanoparticles**
S. M. Yusuf* and P. K. Manna, *Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai 400085, India*

RN05 **Covalent immobilization of biotin on superparamagnetic nanoparticles**
Long Giang Bach[1], Md. Rafiqul Islam[2] and Kwon Taek Lim[2]*, *[1]Department of Imaging System Engineering, Pukyong National University, 608-737, Busan, Korea; [2]Department of Imaging System Engineering, Pukyong National University, Busan, Korea*

RN06 (Withdrawn) **Fabrication of (Mn-Al)/Pd or Ni with Core-Satellite Structured Magnetic Particles**
Youn-kyoung Baek*, Jung-goo Lee and Chul-jin Choi, *Powder & Ceramic Division, Korea Institute of Materials Science, Korea*

RN07 **The effect of hydrostatic pressure on the Morin transition in hematite nanoparticles**
Luana Caron1*, Davide Peddis2, Lorenza Suber3, Dino Fiorani3 and Per Nordblad4, *[1]Fundamental Aspects of Materials and Energy, Faculty of Applied Sciences, TU Delft Mekelweg 15, 2629JB Delft, Netherlands; [2]Dipartimento di Scienze Chimiche, Universita degli Studi di Cagliari, Cittadella Universitaria di Monserrato 09042 Cagliari, Italy; [3]Istituto di Struttura della Materia, Area della Ricerca di Roma, CNR Via Salaria km 29500, CP 10-00016 Monterotondo Stazione, Rome, Italy; [4]Department of Engineering Sciences, Uppsala University Box 534, 751 21 Uppsala, Sweden*

RN08 **Ultra-thin MgO coating of superparamagnetic magnetite nanoparticles by combined co-precipitation and sol-gel synthesis**
Laura De Matteis[1], Laura Custardoy[1], Rodrigo Fernandez-pacheco[2], Cesar Magen[3], Jesus M De La Fuente[4], M R Ibarra[5] and Clara Marquina[6]*, *[1]Instituto de Nanociencia de Aragon(INA), Universidad de Zaragoza, Spain; [2]Laboratorio de Microscopias Avanzadas (LMA) - Instituto de Nanociencia de Aragon (INA), Universidad de Zaragoza, Spain; [3]Laboratorio de Microscopias Avanzadas (LMA) - Instituto de Nanociencia de Aragon (INA, Departamento de Fisica de la Materia Condensada Universidad de Zaragoza Fundacion ARAID, Spain; [4]Instituto de Nanociencia de Aragon- INA, Universidad de Zaragoza Fundacion ARAID, Spain; [5]Instituto de Nanociencia de Aragon (INA)- Laboratorio de Microscopias Avanzadas (LMA), Departamento de Fisica de la Materia Condensada Universidad de Zaragoza, Spain; [6]Instituto de Ciencia de Materiales de Aragon-ICMA, Departamento de Fisica de la Materia Condensada CSIC-Universidad de Zaragoza, Spain*

RN09 **Synthesis and characterization of ultra-small magnetic FeNi/G and NiCo/G nanoparticles**
Mariana Castrillon[1], Alvaro Mayoral[2], Cesar Magen[3], Johan G. Meier[1], Clara Marquina[4]*, Silvia Irusta[5] and Jesus Santamaria[5], *[1]Technological Institute of Aragon (ITA), Zaragoza, Spain; [2]Instituto de Nanociencia de Aragon (INA)- Laboratorio de Microscopias Avanzadas (LMA), Universidad de Zaragoza, Spain; [3]Instituto de Nanociencia de Aragon (INA)- Laboratorio de Microscopias Avanzadas (LMA), Departamento de Fisica de la Materia Condensada Universidad de Zaragoza, Spain; [4]Instituto de Ciencia de Materiales de Aragon-ICMA, CSIC-U. Zaragoza, Spain; [5]Instituto de Nanociencia de Aragon-INA, Networking Research Center on Bioengineering, Biomaterials and Nanomedicine, CIBER-BBN U. Zaragoza, Spain*

RN10 **Magnetization measurements and blocking temperature distribution in magnetic nanoparticle systems**
Taehoon Lee[1], Seunghyun Kim[1], Sungwon Yoon[2], Byoung Jin Suh[2]*, Zeehoon Jang[1] and Kyunghyun Kim[3], *[1]Department of Physics, Kookmin University, Korea; [2]Department of Physics, The Catholic University of Korea, Korea; [3]Biotechnology & Bioinformatics, Korea University, Korea*

RN11 **Structural and magnetic anomalies in $CoAl_2O_4$ nanocrystals**
Koichi Sato[1], Takashi Naka[1], Takayuki Nakane[1], Minori Taguchi[1], Dinesh Rangappa[2], Satoshi Ohara[3] and Tadafumi Adschiri[4], *[1]National Institute for Materials Science, Japan; [2]International Advanced Research Centre for Powder Metallurgy & New Materials, India; [3]Joining and Welding Research Institute, Osaka University, Japan; [4]WPI, Advanced Institute for Materials Research, Tohoku University, Japan*

RN12 **Preparation of chains of single-domain Ni nanoparticles with collinear direction of magnetization**
S A Nepijko[1]*, D Kutnyakhov[1], I E Protsenko[2], H J Elmers[1], R Wiesendanger[3] and G Schoenhense[1] , *[1]Institute of Physics, University of Mainz, Germany; [2]Department of Applied Physics, Sumy State University, Ukraine; [3]Institute of Applied Physics, University of Hamburg, Germany*

RN13 **Influence of the morphology on the magnetic properties of dodecanethiol-capped Au anoparticles**
Daniel Ortega[1], Eider Goikolea[2], Jose Javier Garitaonandia[2], Maite Insausti[2], Hyodo Zhang[3], Kiyonori Suzuki[3] and Fernando Plazaola[2], *[1]Department od Physics and Astronomy, University College London Gower Street WCIE 6BT London, United Kingdom; [2]Zientzia eta Teknologia Fakultatea Euskal Herriko Unibertsitatea, Spain; [3]Department of Materials Engineering, Monash University, Australia*

RN14 **Structure effects on the magnetic behavior in Fe oxide based nanoparticles**
Amilcar Labarta*, Carlos Moya, Nicolas Perez, Arantxa Fraile, Oscar Iglesias and Xavier Batlle, *Fundamental Physics, University of Barcelona, Spain*

RN15 (Withdrawn) **Magnetic properties of surface-functionalized nano-particles**
Ann Kathrin Michel[1], Mathias Kraken[1], Jochen Litterst[1]*, Yannick Guari[2], Joulia Larionova[2], Lenaic Lartigue[2], Jerome Long[2] and Alessandro Lascialfari[3], *[1]IPKM, TU Braunschweig, Germany; [2]Institut Charles Gerhardt, Universite Montpellier II, France; [3]CNRNANO, Univ. Milano, Italy*

RN16 **Study of aqueous dispersions of magnetic nanoparticles by magnetic and rheological measurements**
Shalini M[1], Mahesh Samant[2], Radha S[3]* and D. C. Kothari[3], *[1]Department of Physics and UM-DAE CBS, University of Mumbai, India; [2]National Center for Nanosciences and Nanotechnology, University of Mumbai, India; [3]Department of Physics, University of Mumbai, India*

RN17 **Magnetodielectric effect of Fe_2O_3 nanoparticles embedded in SiO_2 glass matrix**
Hung-cheng Wu, Sudip Mukherjee and Hung-duen Yang*, *Department of Physics, National Sun Yat-sen University, Taiwan*

RN18 **Tuning the concentration of magnetic Co nanoparticles in In_2O_3 with oxygen pressure and concentration of tin**
Marzook S. Alshammari[1]*, Mohammed S. Alqahtani[1], Qi Feng[1], S. Alfahad[2], M. Alotibi[2], A. Alyamani[2], A. M. H. R. Hakimi[3], S. M. Heald[4], H. J. Blythe[1], A. M. Fox[1] and G. A. Gehring[1], *[1]Department of physics and astronomy, University of Sheffield, United Kingdom; [2]Nanotechnology center, King Abdulaziz City for Science and Technology, Saudi Arabia; [3]Department of Materials Science and Metallurgy, University of Cambridge, United Kingdom; [4]Advanced Photon Source, Argonne National Laboratory, USA*

RN19 **Synthesis, structural, and magnetic properties of strontrium hexaferrite nanoparticles with La, Sm doping and core/shell structure by the sol-gel hydrothermal process**
Hue Thi Minh Dang[1], Dien Xuan Luong[1], Hoang Duc Tran[1], Huong Manh Phan[2] and Chinh Dang Huynh[1]*, *[1]Department of Inorganic Chemistry, Hanoi University of Science and Technology, Viet Nam; [2]Department of Physics, University of South Florida, USA*

RN20 A facial fabrication of the superparamagnetic Fe_3O_4@TiO_2 microspheres and its photocatalytic application
Kyong-hoon Choi[1], Eun-mee Kim[2], Seung-lim Oh[3], Do-yeon Kim[4] and Jin-seung Jung[4]*, *[1]Material R&D Division, H & Global Co. Ltd., Korea; [2]Gangneung Center, korea Basic Science Institute, Korea; [3]Material R&D Division, H & Global Co. Ltd., Korea; [4]Department of Chemistry, Gangneung-Wonju National University, Korea*

RN21 Synthesis of high moment magnetite (Fe_3O_4) nanoparticles by simple modified polyol method
Mohamed Abbas Ali Ahmed and Cheolgi Kim*, *Material Science and Engineering, Chungnam National University, Korea*

RN22 Study of Structural, morphological and optical properties of $SrFe_{12-x}$ Co_x O_{19} (x= 0, 0.1, 0.2) hexaferrite nanoparticles
Morteza Zargar Shoushtari*, Ebrahim Mousavi Ghahfarokhi and Fereshte Ranjbar, *Physics, Shahid Chamran University of Ahvaz, Iran*

RN23 Light induced ferromagnetism of nanocrystalline $CuCr_2Se_4$ particles
Dongsoo Kim*, Kookchae Chung and Choljin Choi, *Korea Institute of Materials Science, Korea*

RN24 Magnetite nanoparticles in hybrid aerogel and PEG encapsulated of magnetite nanoparticles for the hyperthermia application
Eunhee Lee and Chang-yeoul Kim, *KICET, Korea*

RO: Hard magnetic materials I

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: T. Shima (Graduate School of Tohoku Gakuin University, Japan)

RO01 Effect of the Cu content on the microstructural and magnetic properties of Nd-Fe-B sintered magnets
Tae-hoon Kim[1], Seong-rae Lee[1]*, Seok Namkung[2] and Tae-suk Jang[2], *[1]Korea University, Korea; [2]Sunmoon University, Korea*

RO02 Effects of the DyH_3 and Dy_2O_3 powder addition on the magnetic and microstructural properties of Nd-Fe-B sintered magnet
Kyoung-hoon Bae[1], Tae-hoon Kim[1], Seong-rae Lee[1]*, Seok Namkung[2] and Tae-suk Jang[2], *[1]Korea University, Korea; [2]Sunmoon University, Korea*

RO03 Magnetic properties of nano-composite Nd-Fe-B thick-film magnets prepared by vacuum arc deposition
Tomoaki Tsutsumi[1], Masaki Nakano[1]*, Takeshi Yanai[1], Fumitoshi Yamashita[2] and Hirotoshi Fukunaga[1], *[1]Nagasaki University, Japan; [2]MInebea Co. Ltd., Japan*

RO04 Corrosion resistance and corrosion behaviors of sintered rare-earth magnets in different corrosive environments
Anhua Li*, Wei Li, Jiajie Li, Haibo Feng, Zhaohui Guo and Minggang Zhu, *Division of Functional Materials, Central Iron & Steel Research Institute, China*

RO05 Effects of grain size and interface state on the coercivity in Nd-Fe-B/Nd thin films
Kunihiro Koike$_1$*, Takanao Kusano[1], Daisuke Ogawa[1], Mizuno Yoshiyuki[1], Miyazaki Takamichi[2], Yasuo Ando[2] and Hiroaki Kato[1], *[1]Graduate School of Science and Engineering, Yamagta University, Japan; [2]Graduate School of Engineering, Tohoku University, Japan*

RO06 Interface state and coercivity in Nd-Fe-B/Dy films
Jin Umezawa[1], Yoshiki Sakai[1], Kunihiro Koike[1]*, Daisuke Ogawa[1], Yoshiyuki Mizuno[1], Takamichi Miyazaki[2], Yasuo Ando[2] and Hiroaki Kato[1], *[1]Graduate School of Science and Engineering, Yamagta University, Japan; [2]Graduate School of Engineering, Tohoku University, Japan*

RO07 Investigation on the magnetic and crystalline structures of die-upset Nd-Fe-B magnets
Yikun Fang[1]*, Wei Li[1], Xiaolu Yin[2], Zhaohui Guo[1], Minggang Zhu[1] and Sy-hwang Liou[2], *[1]Division of Functional Materials Research, Central Iron and Steel Research Institute, Beijing 100081, China; [2]Department of Physics and Astronomy and Nebraska Center for Materials and Nanoscience, University of Nebraska- Lincoln, Lincoln, NE 68588, USA*

RO08 A novel approach - microwave assisted sintering - for preparation of high performance permanent magnets
Dimitrios G Niarchos[1]*, Margarit Gjoka[1], Eamon Devlin[1], George Hadjipanayis[2], Amparo Borrell Tomas[3], Maria Dolores Salvador Moya[3] and Felipe L Penaranda-foix[4], *[1]Institute of Materials Science, NCSR DEMOKRITOS, Greece; [2]Department of Physics and Astronomy, U of Delaware, Newark, DE, USA; [3]Institute of Materials, Technology Polytechnic University of Valencia, Camino de Vera, s/n 46022, Spain; [4]School of Communication, [4]School of Telecommunication, Polytechnic University of Valencia, Camino de Vera, s/n 46022, Spain*

RO09 Preparation of Nd-Fe-B thin films with columnar structure and their structure and magnetic properties
Shota Suzuki, Yuki Hatayama and Toshiyuki Shima, *Tohoku Gakuin University, Japan*

RO10 Microstructure of (Nd,Dy)-Fe-B permanent magnet by spark plasma sintering
Sun Yong Song, Jin Woo Kim and Young Do Kim*, *Division of Materials Science and Engineering, Hanyang University, Korea*

RO11 Effect of small Dy-alloy powder additions on the coercivity of NdFeB sintered magnets
MINWOO LEE , *Sunmoon University, Korea*

RO12 Coercivity of near single domain size Nd-Fe-B-type alloy particles
Hae-woong Kwon[1] and J H Yu[2], *[1]Pukyong National University, Korea; [2]KIMS, Korea*

RO13 Effect of annealing temperature on microstructure, magnetic properties and corrosion resistance of NdFeB/ α-Fe nanocomposite magnets
Minxiang Pan, Pengyue Zhang*, Hongliang Ge, Hangfu Yang and Qiong Wu, *Magnetism key laboratory of Zhejiang Province, China Jiliang University, 310018 Hangzhou, China*

RO14 Effect of magnetic heat-treatment on magnetic properties and corrosion behavior of $Nd_6Fe_{72-x}Co_xB_{22}$(x=10, 20, 30) nanocomposite ribbons
Qiong Wu, P.z. Zhang*, M.x. Pan, Z.s. Wang and H.l. Ge, *China Jiliang University, China*

RO15 Study on magnetization reversal behavior for the annealed $Nd_2Fe_{14}B$/ α-Fe nancomposite alloys
Pengyue Zhang[1], Minxiang Pan[1], Hongliang Ge[1], Luke Yang[1], Ming Yue[2] and Weiqiang Liu[2], *[1]College of Materials Science & Engineering, China Jiliang University, Hangzhou 310018, China; [2]College of Materials Science & Engineering, Beijing University of Technology, Beijing 100124, China*

RP: Measuring techniques and instrumentation I

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Michael Hall (National Physical Laboratory, UK)

RP01 Construction of a versatile neutron-scattering spectrometer HERMES-E using renovated Ge monochromator crystals
Haruhiro Hiraka[1]*, Kenji Ohoyama[1], Manabu Ohkawara[1], Naoki Murakami[1], Yasuo Yamaguchi[1], Kazuma Okubo[2], Michiro Furusaka[2], Yoshiaki Kiyanagi[2], Shin Ae Kim[3], Chang Hee Lee[3], Kohei Morishita[4], Kazuo Nakajima[4] and Kazuyoshi Yamada[5], *[1]Institute for Materials Research, Tohoku University, Japan; [2]Division of Quantum Science and Engineering, Graduate School of Engineering, Hokkaido University, Japan; [3]HANARO, Korea Atomic Energy Research Institute, Korea; [4]Graduate School of Energy Science, Kyoto University, Japan; [5]Advanced Institute for Materials Research, WPI, Tohoku University, Japan*

RP02 NMR study of the phase transition behavior in $Ce_3Co_4Sn_{13}$
Chin Shan Lue, H. F. Liu and C. N. Kuo, *Physics, National Cheng Kung University, Taiwan*

RP03 Analysis of 1/f noise characteristics of magneto-optical Kerr effect measured from Co/Pt and NiFe/Pt multilayers thin film
Djati Handoko, Sang-hyuk Lee and Dong-hyun Kim*, *Physics Department, Chungbuk National University, Korea*

RP04 Photoemission electron microscopy of three-dimensional magnetization configurations in core-shell nanostructures
Judith Kimling[1], Florian Kronast[2], Stephan Martens[1], Tim Boehnert[1], Michael Martens[1], Julia Herrero Albillos[2], Logane Tati Bismaths[2], Ulrich Merkt[1], Kornelius Nielsch[1] and Guido Meier[1]*, *[1]University of Hamburg, Germany; [2]Helmholtz-Zentrum Berlin fuer Materialien und Energie, Germany*

RP05 Development of high-field ESR system using SQUID magnetometer and its application to measurement under high pressure
Takahiro Sakurai[1]*, Kohdai Fujimoto[2], Susumu Okubo[3], Hitoshi Ohta[3] and Yoshiya Uwatoko[4], *[1]Center for Supports to Research and Education Acti, Kobe University, Japan; [2]Graduate School of Science, Kobe University, Japan; [3]Molecular Photoscience Research Center, Kobe University, Japan; [4]Institute of Solid State Physics, University of Tokyo, Japan*

RP06 Alternating magnetic force microscopy: direction detectable imaging of static and alternating magnetic field with high spatial resolution
Hitoshi Saito[1], Ito Ryoichi[1], Kodai Hatakeyama[1], Zhenghua Li[2], Genta Egawa[1] and Satoru Yoshimura[1], *[1]Graduate School of Engineering and Resource Science, Akita University, Japan; [2]Venture Business Laboratory, Akita University, Japan*

RP07 30 T pulsed-high-magnetic-field and element-selective magnetization studies using soft x-ray magnetic circular dichroism
Yasuo Narumi[1]*, Tetsuya Nakamura[2], Misaki Hayashi[1], Hiroyuki Nojiri[1], Kenji Kodama[3], Toko Hirono[2], Wataru Ito[4], Rie Umetsu[1], Ryosuke Kainuma[5], Koichi Kindo[6] and Toyohiko Kinoshita[2], *[1]Institute for Materials Research, Tohoku University, Japan; [2]Japan Synchrotron Radiation Research Institute/SPring-8, Japan; [3]Department of Mechanical Engineering, Nara National College of Technology, Japan; [4]Department of Materials and Environmental Engineering, Sendai National College of Technology, Japan; [5]Graduate School of Engineering, Tohoku University, Japan; [6]Institute for Solid State Physics, The University of Tokyo, Japan*

RP08 Imaging magnetic responses of nanomagnets by X-ray PhotoEmission Electron Microscopy
Florian Kronast[1]*, Julia Herrero-albillos[2], Oliver Sandig[1], Julia Kurde[1], T Noll[1], Florian Roemer[3], Nina Friedenberger[3] and M Farle[3], *[1]Helmholtz Zentrum Berlin fur Materialien und Energie, Albert-Einstein-Str. 15, [1]2489 Berlin, Germany; [2]Centro Universitario de la Defensa, Carretera Huesca s/n, Zaragoza, Spain; [3]Universitat Duisburg-Essen, Lotharstr.1, 47048 Duisburg, Germany*

RP09 Development of high-sensitivity cantilever-detected ESR measurement using a fiber-optic interferometer.
Yuki Tokuda[1], Eiji Ohmichi[2]* and Hitoshi Ohta[3], *[1]Graduate School of Science, Kobe University, Japan; [2]Graduate School of Science, Kobe University, Japan; [3]Molecular Photoscienece Research Center, Kobe University, Japan*

RP10 Study of the epitaxial growth and perpendicular magnetic domain structure of ordered FePt thin film on MgO substrate using HRTEM and electron holography
W. H. Lee[1], J. H. Yoo[2], J. M. Yang[2] and J. K. Park[1]*, *[1]Department of Materials Science and Engineering, Korea Advanced Institute of Science and Technology, Korea; [2]Measurement and Analysis Team, National Nanofab Center, Korea*

RP11 Asteroid curve of GMR films on the practical substrate under the stress
Kazuhiko Okita[1], Kazushi Ishiyama[2] and Hideo Miura[3], *[1]Industrial Instrumentation Division, Tohoku Steel Co., L7td., Japan; [2]Research Institute of Electrical Communication, Tohoku University, Japan; [3]Department of Nanomechanics, Graduate School of Engineering, Tohoku University, Japan*

RP12 Micromagnetic study on the perturbative effect of magnetic force microscopy probes on 90° asymmetric Neel walls in a soft magnetic material
Hironori Asada[1]*, Hidenori Kubo[1], Hazrina Abu Seman[1], Takashi Manago[2] and Hiromi Kuramochi[3], *[1]Yamaguchi University, Japan; [2]Fukuoka University, Japan; [3]National Institute for Materials Science, Japan*

RP13 Development of a non-conventional ESR spectrometer with a composite antenna system and an electronically controlled tuning and matching circuit
Alexey Ponomaryov[1], Kwang Yong Choi[2], Byoungjin Suh[3] and Zeehoon Jang[4]*, *[1]Physics, Chungang University, Korea; [2]Physics, Chungang, Korea; [3]Physics, The Catholic University of Korea, Korea; [4]Physics, Kookmin University, Korea*

RP14 A new type of spin-polarized scanning tunneling microscopy for observing an in-plane magnetization component with high resolution
Daichi Nara[1], Takuya Nakamura[1], Atsuhiko Nakamoto[1], Ryu Kageyama[1], Elaiyaraju Srinivasan[2], Kazuyuki Koike[1] and Hideo Matsuyama[1]*, *[1]Department of Physics, Faculty of Science, Hokkaido University, Japan; [2]Creative Research Institution (CRIS), Hokkaido University, Japan*

RP15 Violation of Hund's third rule in structurally disordered ferromagnets
Vassilios Kapaklis[1]*, Panagiotis Korelis[1], Bjorgvin Hjorvarsson[1], Athanasios Vlachos[2], Iossif Galanakis[3], Panagiotis Poulopoulos[3], K. Ozdogan[4], Makis Angelakeris[5], Fabrice Wilhelm[6] and Andrei Rogalev[6], *[1]Department of Physics and Astronomy, Uppsala University, Sweden; [2]Department Materials Science, University of Patars, Greece; [3]Department Materials Science, University of Patras, Greece; [4]Department of Physics, Yildiz Technical University, Turkey; [5]Department of Physics, Aristotle University of Thessaloniki, Greece; [6]European Synchrotron Radiation Facility, France*

RP16 Bulk Cr tips with full spatial magnetic sensitivity for spin-polarized scanning tunneling microscopy
Anika Schlenhoff, Andreas Sonntag*, Stefan Krause, Gabriela Herzog and Roland Wiesendanger, *University of Hamburg, Germany*

RP17 Polarization state of scattered light in apertureless reflection-mode magneto-optical scanning near-field optical microscopy
Yongfu Cai[1], Mitsuharu Aoyagi[1], Sanyalak Niratisairak[1], Akira Emoto[2], Tatsutoshi Shioda[3] and Takayuki Ishibashi[1]* *[1]Department of materials science and technology, Nagaoka University of Technology, Japan; [2]National institute of advanced industrial science and technology (AIST), Japan; [3]Department of Electrical Engineering, Nagaoka University of Technology, Japan*

RP18 Application of image processing to determine size distribution of magnetic nanoparticles
Udomchok Phromsuwan[1]*, Yaowarat Sirisathitkul[2], Chitnarong Sirisathitkul[1] and Bunyarit Uyyanonvara[3], *[1]School of Science, Walailak University, Thailand; [2]School of Informatics, Walailak University, Thailand; [3]School of Information, Computer and Communication Technology (ICT), Sirindhorn International Institute of Technology (SIIT), Thammasat University, Thailand*

RP19 Microfabrication of a MEMS cantilever for mechanically detected high-frequency ESR measurement
Eiji Ohmichi[1]*, Yoshimasa Yasufuku[2] and Hitoshi Ohta[3], *[1]Graduate School of Science, Kobe University, Japan; [2]Graduate School of Science, Kobe University, Japan; [3]Molecular Photoscience Research Center, Kobe University, Japan*

RP20 2D reflection-type electron spin filter increasing the detection efficiency in spinresolved spectroscopy by 4 orders of magnitude
D Kutnyakhov[1], M Kolbe[1], P Lushchyk[1], M Jourdan[1], K Medjanik[1], S A Nepijko[1], H J Elmers[1], C Tusche[2], J Kirschner[2], F Giebels[3], H Gollisch[3], R Feder[3] and G Schoenhense[1]*, *[1]Institute of Physics, University of Mainz, Germany; [2]Max Planck Institute of Microstructure Physics, Germany; [3]Theoretische Festkoerperphysik, Universitaet Duisburg-Essen, Germany*

RP21 Element selective magnetization measurements under high magnetic field
Andrei Rogalev* and Fabrice Wilhelm, *European Synchrotron Radiation Facility, France*

RP22 POLI: The new single crystal polarized neutron diffractometer for investigation complex magnetic structures at FRM-II
Vladimir Hutanu*, Martin Meven, Gernot Heger and Georg Roth, *Institut fur Krystallographie, RWTH Aachen University, Germany*

RP23 (Withdrawn) Observation of the magnetic domain using scanning electron microscopy with polarization analysis
Sang Sun Lee, Moon Seob Bae, Wondong Kim and Chanyong Hwang*, *Korea Research Institute of Standards and Science, Korea*

RQ: Measuring techniques and Instrumentation II

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Kwon-sang Ryu (KRISS, Korea)

RQ01 Precision broadband ac measurement system for magnetotransport, magnetopolarization and magnetoelectric properties
Jun Lu*, Baogen Shen and Xiaoping Shao, *State Key Laboratory of Magnetism, Institute of Physics, Chinese Academy of Sciences, China*

RQ02 Detection of magnetic beads using an extraordinary magnetoresistance sensor fabricated with unpatterned semiconductor substrate
Jian Sun* and Jurgen Kosel, *King Abdullah University of Science and Technology, Saudi Arabia*

RQ03 Magnetization of single ferromagnetic-grain obtained from observation of field-induced-translation in a chamber-type μg system.
Chiaki Uyeda[1], Kenta Kuwada[2] and Keiji Hisayoshi[2], *[1]Graduate School of Science, Osaka university, Japan; [2]Graduate school of Science, Osaka university, Japan*

RQ04 Application of magnetoimpedance effect for protein biomarker detection
D.G. Park and Hoon Song, *korea atomic energy research institute, Korea*

RQ05 Ac Calorimetry under Pulsed High Magnetic Field
Yuji Inagaki[1], Tatsuya Kawar[1], Akira Matsuo[2] and Koichi Kindo[2], *[1]Applied Quantum Physics, Kyushu University, Japan; [2]Institute For Solid State Physics,The University of Tokyo, Japan*

RQ06 Specific heat and thermal expansion of $Sr_{1-x}Ca_xRuO_3$
Rasna Thakur[1]*, Archana Srivastava[2], Rajesh K. Thakur[1] and N.k. Gaur[1], *[1]Department of Physics, Barkatullah University, Bhopal, India; [2]Department of Physics, Sri Satya Sai College for Women, Bhopal, India*

RQ07 Voltage-current characteristics of superconductor-normal metal contact junctions measured by a picovoltmeter
Wan-seop Kim*, Mun-seog Kim, Po Gyu Park, Kyu-tae Kim and Danbee Kim, *KRISS, Korea*

RQ08 Development of high resolution cryogenic particle detectors using a magnetic calorimeter
W.S. Yoon[1,2], Y.S. Jang[1], S.J. Lee[1], G.B. Kim[1], H.J. Lee[1,2], K.B. Lee[1], M.K. Lee[1], Y.N. Yuryev[1], Y.H. Kim[1,2], *[1]Korea Research Institute of Standards and Science; [2]University of Science and Technology*

RQ09 High pressure inductive measurements using microcoils in anvil cells
Swee K. Goh[1]*, Thomas Meissner[2], Patricia Alireza[1] and Juergen Haase[2], *[1]University of Cambridge, United Kingdom; [2]University of Leipzig, Germany*

RQ10 Microwave synthesis and characterization of the series of co_4-xfexsb$_{12}$ high temperature thermoelectric materials
Alexandra Ioannidou[1]*, Margarit Gjoka[2], Dimitris G Niarchos[2], A Borrell[3], M D Salvador[4] and F L Penaranda-foix[5] *[1]Institute of Materials Science, NCSR Demokritos, Athens, Greece; [2]Institute of Materials Science, NCSR DEMOKRITOS, Greece; [3]Instituto de Tecnologia de Materiales (ITM), Universidad Politecnica de Valencia, Camino de Vera, Spain; [4]Instituto de Tecnologia de Materiales (ITM), Universidad Politecnica de Valencia, Camino de Vera, s/n, 46022 Valencia, Spain; [5]Instituto de Aplicaciones de las Tecnologias de la Informacion y de las Comunicaciones Avanzadas, Universidad Politecnica de Valencia, Camino de Vera, s/n, 46022 Valencia, Spain*

RQ11 Development of SI-STM optimized for 3D(x,T,B) phase-diagram-wide FTSTS mapping on high Tc superconductors
Seokhwan Choi[1], Jimin Kim[1], Chanhee Kim[1], Jaewook Kim[1], Hwansoo Suh[2] and Jhinhwan Lee[1]*, *[1]Physics, KAIST, Korea; [2]FRL, SAIT, Korea*

RQ12 Homemade microcalorimetry equipment, with magnetic fields up to 9 Teslas, for magnetocaloric measurements
J. V. Leitao*, P. Van Dommelen, F. Naastepad and E. Bruck, *Delft University of Technology, Netherlands*

RQ13 Nucleation and development of clustered state in hole doped manganites and cobaltites
A. V. Lazuta[1], V. A. Ryzhov[1], V. P. Khavronin[1], P. L. Molkanov[1] and Ya. M. Mukovskii[2], *[1]Petersburg Nuclear Physics Institute, Gatchina, St.Petersburg 188300, Russia; [2]Moscow Steel and Alloys Institute, Leninskii prosp. 4, Moscow 117936, Russia*

RQ14 Measurements and analysis of core loss including higher harmonic induction waveforms using superposition principle and steinmetz's law
Duhyung Yeon and Derac Son*, *Physics, Hannam university, Korea*

RQ15 Highly sensitive cantilever magnetometryin static and dynamic modes for micro-scale samples
Heonhwa Choi[1], Yun Won Kim[2] and Jae-hyuk Choi[1]*, *[1]Nano Science, University of Science and Technology ; Divison of Physical metrology, KRISS, Deajeon 305-340, Korea; [2]Display and Semiconductor Physics, Korea University, Chungnam 339-800 ; Divison of Physical metrology, KRISS, Deajeon 305-340, Korea*

RQ16 Pulsed high magnetic fields for synchrotron and neutron applications
Fabienne Duc*, Xavier Fabreges, Paul Frings, Marc Nardone, Julien Billette, Jerome Beard, Abdelaziz Zitouni and Geert Rikken, *Laboratoire National des Champs Magnetiques Intenses - CNRS Grenoble-Toulouse, France*

RQ17 Characteristics of an SQUID system with a superconductive shield for biomagnetic measurements
Kwon Kyu Yu, Kiwoong Kim, Hyuckchan Kwon, Jin Mok Kim and Yong Ho Lee, *Brain and Cognition Measurement Lab, KRISS(Korea Research Institute of Standards and Science), Korea*

RQ18 Radio-frequency atomic magnetometer for sensitive susceptibility detection
Hyun Joon Lee[1], Han Seb Moon[1], Yong-ho Lee[2], Seong-joo Lee[2], Kwon-kyo Yu[2] and Kiwoong Kim[2]*, *[1]Pusan National University, Korea; [2]Korea Research Institute of Standards and Science (KRISS), Korea*

RQ19 Cancellation coil allows precision magnetic measurements with strong magnetization field inside a shielded enviroment
Seong-min Hwang, Kiwoong Kim*, Chan Seok Kang, Seong-joo Lee and Yong-ho Lee, *Brain and Cognition Measurement Lab., Korea Research Institute of Standards and Science, Korea*

RQ20 Development of a SQUID based ultra-low-field MRI system
Seong-joo Lee, Kiwoong Kim*, Chan Seok Kang, Seong-min Hwang and Yong-ho Lee, *Brain and Cognition Measurement Lab., Korea Research Institute of Standards and Science, Korea*

RQ21 26 T+ steady magnetic field for neutron science at HZB Berlin
P. Smeibidl, Karel Prokes*, H. Ehmler, O. Prokhnenko and A. Tennant, *M-I1, Helmholtz Zentrum Berlin, Germany*

RQ22 A simple method for measuring blocking temperatures
Mansor Hashim[1], Ghazaleh Bahmanrokh[2] and Ismayadi Ismail[1], *[1]Institute of Advanced Technology, Universiti Putra Malaysia, Malaysia; [2]Physics Department, Faculty of Science, Universiti Putra Malaysia, Malaysia*

RQ23 Optimization of operation condition of orthogonal fluxgate sensor fabricated with Co based amorphous wire
Yongmin Kim[1], Young-hak Kim[2], Sang-ho Lim[3], Cang-seob Yang[4] and Kwang-ho Shin[1]*, *[1]Dept. of Information and Communication Engineering, Kyungsung University, Korea; [2]Pukyong National University, Korea; [3]Korea University, Korea; [4]Agency forDefense Development, Korea*

RR: Industrial applications

July 12 (Thu), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Deren Li (China Iron & Steel Research Institute, China)

RR01 Preparation of α-Fe4N and α-Fe_3N particles with high magnetization for electromagnetic wave absorption applications
Ming-fong Tai[1]*, Hsin-tzu Liu[2], C. M. Lin[3] and Huan-chiu Ku[1], *[1]Physics, National Tsing Hua University, Taiwan; [2]Chemical Engineer, National Tsing Hua University, Taiwan; [3]Applied Science, National Hsingchu University of Education, Taiwan*

RR02 Methods for determining the quality of magnetic fluids
Viorica Chioran, *University Babes-Bolyai - Cluj Napoca / Romania, Romania*

RR03 A study on magnetic fluid viscosity
Viorica Chioran, *University Babes-Bolyai - Cluj Napoca / Romania, Romania*

RR04 Magneto-motive force and torque analysis of squirrel cage induction motor with rotor or stator faults
Cheol Soo Goo[1], Seok-myeong Jang[2] and Yu Seop Park[2], *[1]Insturmentation and Control Assessment Department, Korea Institute of Nuclear Safety, Korea; [2]Electrical Engineering, Chungnam National University, Korea*

RR05 Evaluation of materials degradation of ferromagnetic steels for various magnetized states using a hysteresis scaling law
Satoru Kobayashi*, Yusuke Ishibashi and Ryo Baba, *Department of Materials Science and Engineering, Iwate University, Japan*

RR06 Theoretical design of magnetic energy harvesting module
Kunihisa Tashiro*, Hiroyuki Wakiwaka and Yu Uchiyama, *Shinshu University, Japan*

RR07 A study on detecting and determining the shape of small axial cracks by using magnetic flux leakage in ndt system of pipe
Hui Min Kim and Gwan Soo Park*, *School of Electronic and Electrical Engineering, Pusan National University, Korea*

RR08 Control of working temperature of isothermal magnetic entropy change by hydrogen absorption into $La_{0.8}Nd_{0.2}(Fe_{0.88}Si_{0.12})_{13}$ for magnetic refrigerant
S Fujieda[1]*, A Fujita[2], K Fukamichi[1] and S Suzuki[1], *[1]Institute of Multidisciplinary Research for Advanced Materials, Tohoku Univ., Japan; [2]Dept. of Materials Science, Graduate School of Engineering, Tohoku Univ., Japan*

RR09 Characteristic analysis of induction motor for electric vehicle according to electric loading and magnetic loading
Ki Young Sung[1] and Ki-chan Kim[2]*, *[1]SPG Co,. Ltd., Korea; [2]Hanbat national university, Korea*

RR10 Torque characteristics of interior permanent magnet synchronous motor for electrical hydraulic power steering system
Su-jin Hwang[1] and Ki-chan Kim[2]*, *[1]Daedong movel company, Korea; [2]Hanbat national university, Korea*

RR11 Edge auxiliary teeth design of stationary discontinuous armature PM-LSM with concentrated winding
Yong-jae Kim[1], Sung-jin Kim[1]* and Sang-yong Jung[2], *[1]Department of Electrical Engineering, Chosun University, Korea; [2]School of Information and Communication Engineering, Sungkyunkwan University, Korea*

RR12 Inductively coupled LC resonators as displacement sensor
Yongmin Kim and Kwang-ho Shin*, *Dept. of Information and Communication Engineering, Kyungsung University, Korea*

RR13 Magnetic NDE for sensitization of Inconel 600 alloy
Hiroaki Kikuchi, Takaki Sumimoto, Yasuhiro Kamada and Satoru Kobayashi, *Faculty of Engineering, Iwate University, Japan*

RR14 Comparison of characteristics between the PM synchronous motor and the induction motor for electric vehicle
Mi-jung Kim, Ik-sang Jang, Ki-doek Lee, Jae-jun Lee, Jeong-ho Han, Tae-chul Jeong and Ju Lee*, *Hanyang University, Korea*

RR15 Comparison of simultaneously measured pulse waveforms from both hands using permanent magnet-hall pulsimeter sensors
Sang-suk Lee[1], Jong-gu Choi[2], Il-ho Son[1], Keun-ho Kim[1], Nam-kyu Lee[1] and Hyun-sung Cho[1], *[1]Oriental Biomedical Engineering, Sangji University, Korea; [2]Eastern-Western Biomedical Engineering, Sangji University, Korea*

RR16 (Withdrawn) A study on new permanent magnet configuration for high thrust density in permanent magnet synchronous linear motor
Taewoo Kim and Junghwan Chang*, *Electrical Engineering, Dong-A University, Busan, 604-714, Korea*

RR17 Design of stationary pole pieces in a coaxial magnetic gear
Daekyu Jang and Junghwan Chang*, *Electrical Engineering, Dona-A University, Saha-gu, Busan, 604-714, Korea*

RR18 Design techniques for reducing torque ripple in permanent magnet flux switching motor
Daohan Wang[1], Xiuhe Wang[2] and Sang-yong Jung[1]*, *[1]Sungkyunkwan University, Korea; [2]Shandong University, China*

RR19 (Withdrawn) The analysis of line-start permanent magnet machine with saliency ratio
Kwang Hee Kim, Jian Li and Yun Hyun Cho*, *Dong-A University, Korea*

RR20 (Withdrawn) Analysis of non-linear characteristics of linear compressor
Park Daegeun and Cho Yunhyun*, *Dong-A University, Korea*

RR21 Torque harmonics and reduction design characteristics of induction motor for electric vehicle propulsion
Kyung-won Jeon[1], Seungho Lee[1], Yong-jae Kim[2] and Sang-yong Jung[1]*, *[1]School of Electronic and Electrical Engineering, Sungkyunkwan Univ., Korea; [2]Dept. of Electrical Engineering, Chosun University, Korea*

RR22 Numerical analysis on iron loss and pm loss of permanent magnet synchronous motor considering the carrier harmonics
Yun-ho Jeong[1], Kyung-won Jeon[1], Yong-jae Kim[2] and Sang-yong Jung[1]*, *[1]School of Electronic and Electrical Engineering, Sungkyunkwan Univ, Korea; [2]Dept. of Electrical Engineering, Chosun University, Korea*

RR23 Defect depth estimation based on the analysis of interference defects on the underground gas pipelines
Min-Ho Kim[1], Bok-Jin Oh[1], and Doo-Hyun Choi[2]*, *[1]Graduate School of Electrical Engineering and Computer Science, Kyungpook National Univ., Korea; [2]School of Electronics Engineering, Kyungpook National Univ., Korea*

RR24 (Withdrawn) **Comparison on electromagnetic losses of super high speed PM motor/generator with slot and slotless stators**
Jin Hak Jang[1], Jian Li[2] and Yun Hyun Cho[1]*, *[1]Dong-A University, Korea; [2]Dong-A University, China*

RR25 **A study on Voltage-PWM control of switched reluctance generator at low speed**
Sun Ning[1], Dawoon Choi[2], Jian Li[1] and Yunhyun Cho[2]*, *[1]DongA-university, China; [2]DongA-university, Korea*

RR26 **The measurement procedure of the equivalent core loss in a PM motor**
Guo Jhih Yan[1]*, Ming-hung Jian[1] and Chia-sheng Huang[2] , *[1]Micro/Meso Mechanical Manufacturing R&D Section, Metal Industries Research & Development Centre, Taiwan; [2]Codent Tech Co. Ltd, Taiwan*

RR27 **MFL signal enhancement based on exponential smoothing**
Su-yeon Jeong[1], Jong-hwa Kim[2] and Doo-hyun Choi[2]*, *[1]Graduate School of Electrical Engineering and Computer Science, Kyungpook National Univ., Korea; [2]School of Electronics Engineering, Kyungpook National Univ., Korea*

RR28 **Electromagnetic separation of the brown coal ash of thermal power stations**
Shavkat Malikov[1], Valeriy Pikul[1], Nuranya Mukhamedshina[1], Vladimir Sandalov[2] and Elvira Ibragimova[2]*, *[1]Nuclear Physics, Institute of Nuclear Physics, Uzbekistan; [2]Radiation Physics of Solids and Material Science, Institute of Nuclear Physics, Uzbekistan*

RR29 **Studies on viscidity in ferrofluids of Fe_3O_4**
Han Gu[1], Zhaozhen Jiang[2], Aimei Zhang[3] and Xiaoshan Wu[2], *[1]Advance Functional Materials Lab and Department of Physics, Changshu Institute of Technology, Changs, China; [2]Lab of Solid State Microstructures, Dept Physics, Nanjing University, China; [3]College of Science, Hohai University, China*

RR30 **Non-contact magnetic evaluation of ferromagnetic plate and its compensation of unknown air gap**
Young-hak Kim[1] and Kwang-ho Shin[2]*, *[1]Pukyong National University, Korea; [2]Dept. of Information and Communication Engineering, Kyungsung University, Korea*

RR31 (Withdrawn) **The several analysis techniques of high speed induction motor for copper die casting**
Do-kwan Hong[1]*, Jae-hak Choi[1], Byung-chul Woo[1], Dae-hyun Koo[1] and Chan-woo Ahn[2], *[1]Korea Electrotechnology Research Institute, Korea; [2]Dong-A University, The department of mechanical engineering, Korea*

RR32 **Effect of magnetic reynolds number variation on MHD convection inside an enclosure**
Mohsen Pirmohammadi*, *MAPNA Group, Iran*

SA: Multiferroics IV

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jonghyun Song (Chungnam National University, Korea)

SA01 **Magnetic annealing effects on properties of the multilayer $BaTiO_3$ /$CoFe_2O_4$ thin films**
Yuqiang Dai[1], Jianming Dai[1]*, Xianwu Tang[1] and Qiangchun Liu[2], *[1]Key Laboratory of Materials Physics, Institute of Solid State Physics, Chinese Academy of Sciences, China, [2]School of Physics and Electronic Information, Huaibei Normal University, China*

SA02 (Withdrawn) **Magnetoelectric $CoFe_2O_4$-PZT thin film composites grown by pulsed laser deposition**
Ioanna Giouroudi[1]*, Mohammed Alnassar[2], Roland Groessinger[3] and Juergen Kosel[2], *[1]Institute of Sensor and Actuator Systems, Vienna University of Technology, Austria; [2]Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology, Saudi Arabia; [3]Institute of Solid State Physics, Vienna University of Technology, Austria*

SA03 **Synthesis and magnetic property of multiferroic $DyMnO_3$ nanoparticles in mesoporous silica**
Takayuki Tajiri[1]*, Kenta Hamamoto[2], Yuhki Ando[2], Hiroyuki Deguchi[2], Masaki Mito[2] and Atsushi Kohno[1], *[1]Faculty of Science, Fukuoka University, Japan; [2]Faculty of Engineering, Kyushu Institute of Technology, Japan*

SA04 **Magnetic properties of $Co_{1-x}Mn_xFe_2O_4$ (x=0-0.5) - PZT thin films fabricated by sol-gel spin coating method**
M. Khodaei, S. A. Seyyed Ebrahimi* and R. Vaghar, *Center of Excellence for Magnetic Materials, School of Metallurgy and Materials, University of Tehran, Iran*

SA05 **M doping element localization by the molecular field theory in the $Ga_xFe_{2-x}O_3$:M thin films**
Christophe Lefevre[1]*, Ran Hee Shin[2], Ji Hye Lee[2], Seol Hee Oh[2], Alexandre Thomasson[1], Francois Roulland[3], Christian Meny[1], William Jo[2] and Nathalie Viart[3], *[1]CNRS, France; [2]Department of Physics, Ewha Womans University, Korea; [3]Universite de Strasbourg, France*

SA06 **Interplay between magnetization and polarization in epitaxial $(Ga,Fe)_2O_3$ thin films with additional ion-substitutions into Fe sites**
R. H. Shin[1], J. H. Lee[1], S. H. Oh[2], W. Jo[2]*, C. Lefevre[3], F. Roulland[3], A. Thomasson[3], C. Meny[3] and N. Viart[3], *[1]Department of Physics and CNRS-EWHA International Research Center, Ewha Womans University, Korea; [2]Department of Physics, Ewha Womans University, Korea; [3]Institute of Physics and Chemistry of Materials of Strasbourg, France*

SA07 **Fabrication and characterization of heusler-alloy/perovskite heterostructures**
Kohei Kobayashi, Keita Sakuma*, Naoto Fukatani, Tetsuya Miyawaki, Kenji Ueda and Hidefumi Asano, *Nagoya University, Japan*

SA08 **Optical properties of $(SrMnO_3)_n/(LaMnO_3)_{2n}$ superlattices: An insulator-to-metal transition observed in the absence of disorder**
Andrea Perucchi[1], Leonetta Baldassarre[1], Alessandro Nucara[2], Paolo Calvani[2], Carolina Adamo[3], Darrell G Schlom[3], Pasquale Orgiani[4], Luigi Maritato[4] and Stefano Lupi[5] ,*[1]Sincrotrone Trieste, Italy, [2]CNR-SPIN and University of Rome 'Sapienza', Italy, [3]Cornell University, USA; [4]CNR-SPIN and University of Salerno, Italy; [5]CNR-IOM and University of Rome 'Sapienza', Italy*

SA09 **Preperation of hexagonal $YFeO_3$ powder and thin film**
Hanju Lee, Kyoungchul Kim, Sujin Lee, Sul A Choi and Kiejin Lee*, *physics, Department of physics, Sogang university, Korea*

SA10 **Magnetic hysteretic effects in $LaAlO_3$ /$SrTiO_3$ Heterostructures**
Veerendra Kumar Guduru[1], Alix Mccollam[1], Sander Wenderich[2], Michelle Kruize[2], Uli Zeitler[1]*, Alexander Brinkman[2], Jan Kees Maan[1], Mark Huijben[2], Hans Hilgenkamp[2], Gertjan Koster[2], Guus Rijnders[2] and Dave Blank[2], *[1]HFML/IMM,Radboud University Nijmegen, Netherlands; MESA+ Institute for Nanotechnology, University of Twente, Netherlands*

SA11 **Synthesis and magnetoelectric properties of multiferroic composites on the cobalt ferrite - pzt system**
C. Miclea[1]*, L. Amarande[1], L. Trupina[1], M. Cioangher[1], C. T. Miclea[2] and C. F. Miclea[1], *[1]National Institute for Materials Physics, Bucharest, Romania; [2]Hyperion University, Bucharest, Romania*

SA12 (Withdrawn) **Detailed structural study of $BiFeO_3$/$SrRuO_3$ heteroestructures grown on $SrTiO_3$ (001) substrates**
Claribel Dominguez[1], John Edward Ordonez[1], Maria Elena Gomez[1], Wilson Lopera[1] and Pedro Prieto[2], *[1]Thin Film Group, Department of Physics, Universidad del Valle, A.A. 25360, Cali, Colombia; [2]Center of Excellence for Novel Material CENM, Calle 13 # 100-00 320-1026, Cali, Colombia*

SA13 (Moved to other session) **Lattice engineering on transition metal oxide thin film**
Chang Uk Jung*, *Department of Physics, Hankuk University of Foreign Studies, Korea*

SA14 **Magnetisation in different multiferroic YMO (Yttrium Manganese Oxide) thin films**
Manish Kumar*, R.J. Choudhary and D.M. Phase, *UGC-DAE CSR, UGC-DAE CSR Indore,Madhya Pradesh, India*

SA15 **Dependence of magnetoelectric response on magnetostrictive content in composite multiferroics**
Mohsin Rafique[1]*, Syed Qamar Ul Hassan[1], Muhammad Saifullah Awan[2] and Sadia Manzoor[1], *[1]Physics, COMSATS Institute of Information Technology, Islamabad, Pakistan; [2]Center for Nano and Micro Devices (CNMD), COMSATS Institute of Information Technology, Islamabad, Pakistan*

SA16 **Raman analyses of oxygen defects in hexagonal $HoMnO_3$ thin films**
Xiang-bai Chen[1], Nguyen Thi Minh Hien[2], D. Lee[3], T. W. Noh[3] and In-sang Yang[2], *[1]Konkuk University, Korea; [2]Ewha Womans University, Korea; [3]Seoul National University, Korea*

SA17 **Preparation and properties of inverse perovskite Mn_3GaN thin films**
Hiroki Tashiro, Ryosuke Suzuki*, Tetsuya Miyawaki, Kenji Ueda and Hidefumi Asano, *Department of engineering, Nagoya University, Japan*

SA18 **Ferroelectric and magnetic properties of $BiMnO_3$ thin films**
Min-hwa Jung and Yoon-hee Jeong*, *Department of Physics, Pohang University of Science and Technology, Korea*

SA19 **Ferroelectric polarization induced magnetic anisotropy in $Co_{40}Fe_{40}B_{20}/YMnO_3$ multiferroic heterostructure**
Jiawei Wang[1], Yanggang Zhao[1]*, Peisen Li[1], Sen Zhang[1], Syed Rizwan[2], Xiufeng Han[2], Xuefeng Sun[3], Yuanjun Yang[4], Qianping Chen[1] and Xin Zhang[1], *[1]Department of Physics and State Key Laboratory of Low-Dimensional Quantum Physics, Tsinghua University, China, [2]Beijing National Laboratory for Condensed Matter Physics, Chinese Academy of Sciences, China, [3]Hefei National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China, China, [4]National Synchrotron Radiation Laboratory, University of Science and Technology of China, China*

SA20 **Ferroelectric-domain-switching controlled magnetism in CoFeB/PMN-PT multiferroic heterostructure**
Peisen Li[1], Yonggang Zhao[1]*, Sen Zhang[1], Lifeng Yang[1], Syed Rizwan[2], Qianping Chen[1], Jiawei Wang[1] and Xiufeng Han[2], *[1]Department of Physics and State Key Laboratory of Low-Dimensional Quantum Physics, Tsinghua University, China; [2]Beijing National Laboratory for Condensed Matter Physics, Chinese Academy of Sciences, China*

SA21 **Multiferroic properties of $BaTiO_3$ - $Zn_{1-x}Co_xO$ multilayer thin films**
Anuraj S[1], Shivaraman Ramaswamy[1]*, Helen Annal Therese[1], C Gopalakrishnan[1] and A Karthigeyan[2], *[1]Nanotechnology Research Center, SRM University, India; [2]Department of Physics and Nanotechnology, SRM University, India*

SA22 **Study of structural phase transition and multiferroic properties of Samarium substituted $BiFeO_3$ thin films**
Mahdiyar Bagheri, Shivaraman Ramaswamy*, Helen Annal Therese and C Gopalakrishnan, *Nanotechnology Research Center, SRM University, India*

SA23 **Study of ferroelectricity in Eu substituted $BiMnO_3$ films**
Shivaraman Ramaswamy*, Helen Annal Therese and C Gopalakrishnan, *Nanotechnology Research Center, SRM University, India*

SA24 **Experimental evidence for Exchange bias in polycristalline $BiFeO_3$ /$Ni_{81}Fe_{19}$**
Tony Hauguel, Souren P Pogossian, David Toyo Dekadjevi*, Jean-philippe Jay, Mikhail Indenbom, David Spenato and Jamal Ben Youssef, *Laboratoire de Magnetisme de Bretagne, CNRS-Universite Europeene de Bretagne, France*

SB: Superconductivity IV

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Hyun Jung Lee (KIAS, Korea)

SB01 **Parit variation in the rectangular array of periodic holes on superconducting thin film**
Kamran Muhammad[1]* and Qiu Xiang Gang[2], *[1]Physics, COMSATS Institute of IT, Islamabad, Pakistan, [2]Institute of Physics, Chinese Academy of Sciences, Beijing, China*

SB02 **Charge disproportion, spin and orbital states in the tri-layered nickelate $La_4Ni_3O_8$ from first principles**
Hua Wu*, *Department of Physics, Fudan University, Shanghai, China*

SB03 **Carrier doping to the novel layered nickelate**
Yoshiki Sakurai, Yoshihide Kimishima and Masatomo Uehara*, *Yokohama national university, Japan*

SB04 **Occurrence of superconductivity and structural variations in the $Sr_{1-x}T_{2-2x}Ge_2$ layer system (T = Ni, Pd, and Pt; $x \geq 0$)**
H. C. Ku[1], I. A. Chen[1], C. H. Hung[1], C. Y. Lin[1], S. J. Wang[1], Y. B. You[1], M. F. Tai[1] and Y. Y. Hsu[2], *[1]Department of Physics, National Tsing Hua University, Taiwan; [2]Department of Physics, National Taiwan Normal University, Taiwan*

SB05 (Withdrawn) **Fermi surface study on the rattling-induced superconductor KOs_2O_6**
Taichi Terashima[1]*, Nobuyuki Kurita[1], Andhika Kiswandhi[2], Eun-sang Choi[2], James S. Brooks[2], Kota Sato[3], Jun-ichi Yamaura[3], Zenji Hiroi[3], Hisatomo Harima[4] and Shinya Uji[1], *[1]National Institute for Materials Science, Japan; [2]National High Magnetic Field Laboratory, USA, [3]ISSP, Univ. of Tokyo, Japan, [4]Graduate School of Scienece, Kobe Univ., Japan*

SB06 **Transient analysis of the current density and temperature distribution of the MgB_2 superconductor in the He atmosphere**
H. M. Iftekhar Jaim[1] and Klaus Barner[2], *[1]Department of Mechanical, Material and Aerospace Engineering, University of Central Florida, USA; [2]Department of Physics (4 Physik), University of Gottingen, F. Hund Platz 1, 37077 Gottingen, Germany*

SB07 **Meissner-like effect on normal- superfluid interface of imbalanced Fermi gas**
Neda Ebrahimian* and Mohammad Mehrafarin, *Physics Department, Amirkabir University of Technology,Tehran 15914, Iran*

SB08 **Magnetic properties and structure evolution along R_2RhIn_8 series**
Petr Cermak[1]*, Marie Kratochvilova[1], Jan Prokleska[1], Marie-helene Lemee-cailleau[2], Bachir Ouladdiaf[2] and Pavel Javorsky[1], *[1]Department of Condensed Matter Physics, Charles University in Prague, Czech Republic, [2]Institut Laue-Langevin, France*

SB09 **Second magnetization peak and magnetic field distribution in superconductor**
Denis Gokhfeld, *L.V. Kirensky Institute of Physics, Russia*

SB10 **Superconductivity in $LuGe_2$ single crystals**
N. H. Sung[1], A. I. Coldea[2], S. K. Choi[2], H. Kim[3,4], R. Prozorov[3,4], and B. K. Cho[1,5]*, *[1]School of Materials Science and Engineering, Gwangju Institute of Science and Technology (GIST), Gwangju 500-712, Korea, [2]Clarendon Laboratory, Department of Physics, University of Oxford, Oxford OX1 3PU, United Kingdom, [3]The Ames Laboratory, Ames, Iowa 50011, USA, [4]Department of Physics and Astronomy, Iowa State University, Ames, Iowa 50011, USA, [5]Department of Photonics and Applied Physics, Gwangju Institute of Science and Technology (GIST), Gwangju 500-712, Korea*

SB11 **Mutual interplay of magnon BEC and superconductivity**
Zygmunt Bak*, *Institute of Physics, Institute of Physics, Jan Dlugosz University, Czestochowa, Poland, Poland*

SB12 **Studies of the absolute value of lambda in unconventional superconductors**
Jeehoon Kim*, Filip Ronning, N. Haberkorn, L. Civale, J. D. Thompson and Roman Movshovich, *Los Alamos National Laboratory, USA*

SB13 **Self-consistent calculations of the effects of disorder in d- and s-wave superconductors**
Long He and Yun Song*, *Department of Physics, Beijing Normal University, China*

SB14 **Superconductivity and structural transition of RPt_2Si_2 (R = Y, La, Lu)**
Yutaro Nagano[1]*, Nobutaka Araoka[1], Akihiro Mitsuda[1], Hirofumi Wada[1], Masaki Ichihara[2], Masahiko Isobe[2] and Yutaka Ueda[2], *[1]Department of Physics, Kyushu University, Japan, [2]Institute for Solid State Physics, University of Tokyo, Japan*

SB15 Magnetic property in ferromagnetic superconductor UGe_2 above ferromagnetic critical pressure
Naoyuki Tateiwa[1]*, Yoshinori Haga[1], Tatsuma D Matsuda[1], Eetsuji Yamamoto[1], Yoshichika Onuki[2] and Zachary Fisk[3], *[1] Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [2]Graduate School of Science, Osaka University, Japan; [3]University of California, USA*

SB16 Electron and hole transmission through superconductor - normal metal interfaces
Kurt Gloos* and Elina Tuuli, *Department of Physics and Astronomy, University of Turku, Finland*

SB17 Magnetic field-induced odd-frequency superconductivity in s-wave superconductors
Masashige Matsumoto[1]*, Mikito Koga[2] and Hiroaki Kusunose[3], *[1]Department of Physics, Fuclty of Science, Shizuoka University, Japan; [2]Department of Physics, Fuculty of Education, Shizuoka University, Japan; [3]Department of Physics, Ehime University, Japan*

SB18 Enhanced pinning properties and the zero-resistance state in melt-textured high-Tc superconductors probed by pulsed magnetic fields
Fabio Teixeira Dias[1]*, Valdemar Das Neves Vieira[1], Douglas Langie Da Silva[1], Sabrina Esperanca Nunes[1], Frederik Wolff-Fabris[2], Erik Kampert[2], Jacob Schaf[3] and Joan Josep Roa Rovira[4], *[1]Department of Physics, Universidade Federal de Pelotas, 96010-900, Pelotas, Brazil; [2]Dresden High Magnetic Field Laboratory, HZ Dresden-Rossendorf, 01314, Dresden, Germany; [3]Universidade Federal do Rio Grande do Sul, 91501-970, Porto Alegre, Brazil; [4]Universite de Poitiers, 86962, Poitiers, France*

SB19 Phenomena of vortex pinning by composite pinning array on Nb films
Sheng Hao Wang[1]*, Lance Horng[1], T. C. Wu[2], Chien-miao Chen[1], R Cao[1] and J. C. Wu[1], *[1]Dept. of Physics, National ChangHua University of Education, Taiwan; [2]Dept. of Electronic Engineering, National Formosa University, Taiwan*

SB20 Superconducting fluctuations near the Mott critical point
Moon-sun Nam[1], Cecile Meziere[2], Patrick Batail[2] and Arzhang Ardavan[1], *[1]The Clarendon Laboratory, Department of Physics, University of Oxford, United Kingdom; [2]Laboratoire MOLTECH-Anjou, UMR 6200 CNRS-Universite d'Angers, 2 Boulevard Lavoisier, F-49045 Angers, France*

SB21 (Withdrawn) Anomalous hall effect in superconductors with spin-orbit interaction
Pedro D Sacramento[1], M. A. N. Araujo[2], V R Vieira[1], V K Dugaev[3] and J Barnas[4], *[1]Departamento de Fisica and CFIF, Instituto Superior Tecnico, TULisbon, Portugal; [2]Departamento de Fisica and CFIF, Universidade de Evora, Portugal; [3]Department of Physics, Rzeszow University of Technology, Poland; [4]Department of Physics, Adam Mickiewicz University, Poland*

SB22 Analysis of the local current density in HTS coated conductors using low-temperature scanning laser and hall probe microscopy
Sang Kook Park, Bo Ram Cho, Hee Yeon Park and Hyeong-cheol Ri*, *Department of Physics, Kyungpook National University, Korea*

SB23 Cooper pairing between conduction and localized electrons in heavy-fermion systems
Keisuke Masuda[1]* and Daisuke Yamamoto[2], *[1]Department of Physics, Waseda University, Japan; [2]Condensed Matter Theory Laboratory, RIKEN, Japan*

SB24 Low-temperature thermoelectric properties of the electron-doped Perovskites $Sr_{1-x}CaxTi_{1-y}NbyO_3$
Tetsuji Okuda[1]*, Junichi Fukuyado[1], Kurahito Narikiyo[1], Mitsuru Akaki[2] and Hideki Kuwahara[2], *[1]Kagoshima University, Japan; [2]Sophia University, Japan*

SB25 Evolution of pairing potential in ladder materials under renormalization group transformations
Yen-chen Lee[1]*, Wen-min Huang[2] and Hsiu-hau Lin[1], *[1]Department of Physics, National Tsing Hua University, Taiwanp; [2]Physics Division, National Center for Theoretical Sciences, Taiwan*

SB26 Evidence for multiband order parameters in the stong-coupling $LaRu_4As_{12}$ Skutterudite Superconductor
Tomasz Cichorek[1], Lukasz Bochenek[1], Ryszard Wawryk[1], Roman Puzniak[2] and Zygmunt Henkie[1], *[1]Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wroclaw, Poland; [2]Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*

SB27 NMR Study of magnetic order and the FFLO state in $CeCoIn_5$
Ken-ichi Kumagai[1]*, Hiroyuki Shishido[2], Takasada Shibauchi[2] and Yuji Matsuda[2], *[1]Department of Physics, Hokkaido University, Sapporo, 060-0810, Japan; [2]Department of Physics, Kyoto University, Kyoto 606-8502, Japan*

SB28 MgB2 coated conductors grown at various temperatures by hybrid physical-chemical vapor deposition
Mahipal Ranot[1], K. H. Cho[1], Soon-gil Jung[1], Won Nam Kang[1]*, S. Oh[2] and K. C. Chung[3], *[1]Physics, Sungkyunkwan University, Suwon, Korea; [2]National Fusion Research Institute, Korea; [3]Korea Institute of Machinery and Materials, Korea*

SB29 Low temperature properties of the weakly-coupled non-centrosymmetric superconductor $LaNiC_2$
Jian Chen[1], Jing Lei Zhang[1], Lin Jiao[1], Lin Yang[1], Tian Shang[1], Michael Nicklas[2], Frank Steglich[2] and Hui Qiu Yuan[1]*, *[1]Physical Department, Zhejiang University, China; [2]Max Planck Institute for the Chemical Physics of Solids, Dresden, Germany*

SB30 Magnetic penetration depth and H-T phase diagram in $SrPd_2Ge_2$
H. Kim[1], N. H. Sung[2], M. A. Tanatar[1], B. K. Cho[2] and R. Prozorov[1]*, *[1]The Ames Laboratory, USA, [2]School of Materials Science and Engineering, Gwangju Institute of Science and Technology, Korea*

SB31 Eliashberg function of the overdoped Bi_{2212} superconductors deduced from the high resolution laser ARPES intensity
Jin Mo Bok[1]*, Han-yong Choi[1], Junfeng He[2], X. J. Zhou[3] and C. M. Varma[4], *[1]Department of Physics, SungKyunKwan University, Suwon 440-746, Korea, [2]Institute of Physics, Chinese Academy of Sciences, Beijing 100190., China; [3]Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China; [4]Department of Physics and Astronomy, University of California, Riverside, CA 92521, USA*

SB32 The momentum and frequency dependences of the self-energy induced by the spin fluctuations for the cuprate superconductors
Seung Hwan Hong and Han-yong Choi*, *Department of Physics, SungKyunKwan University, Korea*

SC: Superconductivity VI

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Myung-Hwa Jung (Sogang University, Korea)

SC01 Novel non-centrosymmetric superconductors in 113 and 111 crystal structures
Friedrich Kneidinger[1]*, Ernst Bauer[1], Herwig Michor[1], Gerfried Hilscher[1], Isolde Zeiringer[2], Peter Rogl[2], Nataliya Melnychenko[3], Leonid Salamakha[4] and Adrian Hillier[5], *[1]Institute of solid state physics, Vienna University of Technology, Austria, [2]Institute of physical chemistry, University of Vienna, Austria; [3]Inorganic Chemistry Department, Ivan Franko National University of Lviv, Ukrainel; [4]Ivan Franko Lviv National University, Ukraine; [5] ISIS facility, STFC Rutherford Appleton Laboratory, Harwell Science and Innovation Campus, United Kingdom*

SC02 Non-fermi liquid behavior of d-wave superconductor
Pankaj Singh*, Ajay Pratap Singh Gahlot, Manju Rani and Partho Goswami, *Physics Department, Deshbandhu College, University Of Delhi, India*

SC03 Low temperature enhancement of the critical current in $CeCoIn_5$. Possible signature of magnetic order
C. F. Miclea[1]*, M. Nicklas[2], A. C. Mota[3], M. M. Altarawneh[4], C. Miclea[1], N. Harrison[4], J. Thompson[4], F. Steglich[2] and R. Movshovich[4], *[1]National Institute for Materials Physics, 077125 Bucharest-Magurele, Romania; [2]Max-Planck-Institute for Chemical Physics of Solids, 01187 Dresden, Germany; [3]Solid State Laboratory, ETH Zurich, Switzerland; [4]Los Alamos National Laboratory, Los Alamos, New Mexico 87545, USA*

SC04 Superconducting phase diagram in fcc phase of Cs_3C_{60}: A pressure dependence of resistivity
Takashi Kambe*, Yuta Suzuki, Seizi Shibasaki, Keitaro Tomita and Yoshihiro Kubozono, *Physics, Okayama university, Japan*

SC05 The superconducting phases of URu_2Si_2 from sound velocity measurements
B S Shivaram[1], V W Ulrich[1] and D G Hinks[2], *[1]Physics, University of Virginia, USA; [2]Materials Science Division, Argonne National Labs, USA*

SC06 Electronic structure of a superconducting boride, ZrB_{12}
Sangeeta Thakur[1], Deep Narayan Biswas Biswas[2], Nishaina Sahadev[3], Geetha Balakrishnan[4] and Kalobaran Maiti[5]*, *[1]Department of Condensed Matter Physics and Materials' Science, Tata Institute of Fundamental Research Colaba, Mumbai - 400 005, India; [2]Tata Institute of Fundamental Research Colaba, Mumbai - 400 005, India; [3]Tata Institute of Fundamental Research, Colaba, Mumbai - 400 005, India; [4]Department of Physics, University of Warwick, Coventry, CV4 7AL, UK, United Kingdom; [5]Tata Institute of Fundamental Research Colaba Mumbai 400005, India*

SC07 On the nature of an energy barrier between (ϖ,0) and (0,ϖ) magnetic orders in Fe pnictides
Alexander Yaresko[1]*, Lilia Boeri[2], Vladimir Antropov[3] and Ole Krogh Andersen[2], *[1] Andersen, Max Planck Institute for Solid State Research, Germany; [2]Max Planck Institute for Solid State Research, Germany; [3]Ames Laboratory, Ames, Iowa, USA*

SC08 Electronic structures and magnetic properties of LnFeAsO
Chang Hyun Yi, Ju Young Kim, Jae Kyung Chang, and Joo Yull Rhee, *Department of Physics, Sungkyunkwan University, Suwon 440-746, Korea*

SC09 Phase transition of a heavy fermion superconductor in a high magnetic field : entanglement analysis
Reza Afzali[1]* and Neda Ebrahimian[2], *[1]Physics Department, K. N. Toosi University of Technology, Tehran 15418, Iran; [2]Physics Department, Amirkabir University of Technology, Tehran 15914, Iran*

SC10 Spin and charge excitations in antiferromagnetic metallic phase in multi-orbital systems: A case study of chromium
Koudai Sugimoto[1], Eiji Kaneshita[2], Kenji Tsutsui[3] and Takami Tohyama[1]*, *[1]Yukawa Institute for Theoretical Physics, Kyoto University, Japan; [2]Sendai National College of Technology, Japan; [3]Condensed Matter Science Division, JAEA, Japan*

SC11 The dirty crossover - signature of a robust superfluid in the unitary regime
IIT Guwahati, *IIT Guwahati, India*

SC12 Spin-orbit coupling and the superconductivity in simple-cubic polonium
Chang-jong Kang, Kyoo Kim and B. I. Min, *Physics, POSTECH, Korea*

SC13 Stability of FFLO states in optical lattices with layered structure
Akihisa Koga* and Yasuharu Okawauchi, *Department of Physics, Tokyo Institute of Technology, Japan*

SC14 Flux quantization and its magnetic relaxation in a micrometer-sized superconducting ring of niobium
Jae-hyuk Choi[1]*, Heon-hwa Choi[1], Yun-won Kim[2], Soon-gul Lee[2] and Mahn-soo Choi[3], *[1]Division of Physical Metrology, Korea Reserach Institute of Standards and Science, Korea; [2]Dep. of Display and Semiconductor Physics, Korea University, Korea; [3]Dep. of Physics, Korea University, Korea*

SC15 Measurement of rat biomagnetic signals by using a HTS-SQUID system
In-seon Kim* and San Ahn, *Division of Convergence Technology, Korea Research Institute of Standards and Science, Korea*

SC16 Evolution of the effective mass approaching the quantum critical point in the heavy fermion superconductor $CePt_2In_7$
Jakob Kanter[1]*, Philip J. W. Moll[1], Filip Ronning[2], Sven Friedemann[3], Patricia L Alireza[3], Michael Sutherland[3], P. Tobash[2], J. Thompson[2], Eric D. Bauer[2] and Bertram Batlogg[1], *[1]Laboratory for Solid State Physics, ETH Zurich, Switzerland; [2]Los Alamos National Laboratory, Los Alamos, New Mexico, US; [3]Cavendish Laboratory, University of Cambridge, United Kingdom*

SC17 (Moved to other session) Thermal stability of an epoxy-impregnated HTS racetrack coil without turn-to-turn insulation for rotating machines
Oh Jun Kwon, Kwang Lok Kim, Yoon Hyuck Choi, Hyun-jin Shin and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

SC18 (Moved to other session) Design, fabrication, and testing of a cooling system using solid nitrogen for a 3 T/60-mm RT bore superconducting HGMS
Jung-bin Song, Kwang Lok Kim, Dong Gyu Yang, Yoon Hyuck Choi, Jongseok Lee and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

SC19 (Moved to other session) Purification of chemical mechanical polishing wastewater using a 2G HTS high gradient magnetic separation system
Dong Gyu Yang, Jung-bin Song, Young-gyun Kim, Jongseok Lee, Yeonjoo Park and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

SC20 (Moved to other session) Effect of liquid cryogen on a 2G HTS magnet using a mixed cryogen cooling system
Kwang Lok Kim, Jung-bin Song, Yoon Hyuck Choi, Dong Gyu Yang and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

SC21 (Moved to other session) Removal of silica and copper ions from CMP wastewater via magnetic seeding aggregation using superconducting HGMS
Jongseok Lee, Jung-bin Song, Dong Gyu Yang, Yeonjoo Park and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

SC22 (Moved to other session) Removal of silica and copper ions from CMP wastewater via magnetic seeding aggregation using superconducting HGMS
Jongseok Lee, Jung-bin Song, Dong Gyu Yang, Yeonjoo Park and Haigun Lee*, *Department of Materials Science and Engineering, Korea University, Korea*

SC23 Powder neutron diffraction study of $HoCoGa_5$
Riki Kobayashi[1]*, Koji Kaneko[1], Shuichi Wakimoto[1], Naoyuki Sanada[2], Ryuta Watanuki[2], Kazuya Suzuki[2] and Songxue Chi[3], *[1]Quantum beam science directolate, Japan atomic energy agency, Japan; [2]Department of Advanced Materials Chemistry, Yokohama National University, Japan; [3]Quantum beam science directolate, Oak Ridge National Laboratory, USA*

SC24 Evidence of two-band gap superconductivity in $LaRu_2P_2$
Tetsuya Fujiwara[1]*, Harunobu Sagawa[1], Kazuyuki Matsubayashi[2], Yoshiya Uwatoko2 and Toru Shigeoka[1], *[1]Graduate School of Science and Engineering, Yamaguchi University, Japan; [2]Institute for Solid State Physics, University of Tokyo, Japan*

SC25 Proximity effect for asymmetrical three layered F/S structures in external magnetic field
Maxim V. Avdeev, Sergey L. Tsarevskii and Yurii N. Proshin*, *Theoretical Physics Department, Kazan Federal University, Russia*

SC26 Influence of proximity effect with Umklapp processes on the Josephson current in the SFS nanostructure
Vadim Tumanov and Yurii N. Proshin*, *Theoretical Physics Department, Kazan Federal University, Russia*

SC27 Superconducting characters under pressure in heavy fermion compounds $CeIr(In_{1-x}Cd_x)_5$ studied by In-NQR
Mitsuharu Yashima, *Engineering Science, Osaka University, Japan*

SD: Topologicai insulators II

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jun Sung Kim (POSTECH, Korea)

SD01 Giant and twofold oscillations of magnetoresistance in topological insulators Sb_2Te_3 and Bi_2Te_3 single crystals
Zengji Yue, Xiaolin Wang* and Shixue Dou; *Spintronic and Electronic Materials Group, Institute for Superconducting & Electronic Materials, University of Wollongong NSW 2522, Australia*

SD02 (Upgraded to oral) Engineering and manipulating topological qubits in 1D quantum wires
Panagiotis Kotetes[1], Alexander Shnirman[2] and Gerd Schon[1], *[1]Institut fur Theoretische Festkorperphysik, Karlsruhe Institute of Technology, Germany; [2]Institut fur Theorie der Kondensierten Materie, Karlsruhe Institute of Technology, Germany*

SD03 Angle dependence of the Landau level spectrum in twisted bilayer graphene
Min-young Choi, Young-hwan Hyun and Yoonbai Kim*, *Department of Physics, Sungkyunkwan University, Korea*

SD04 Surface band structure study of Bismuth-based ternary topological insulators
Madhab Neupane[1], S. Y. Xu[1], C. Liu[1], L. A. Wray[2], N. Alidoust[1], A. Fedorov[3], Y. S. Hor[4], T. R. Chang[5], H. T. Jeng[6], H. Lin[7], B. Bansil[7], R. J. Cava[4] and M. Z. Hasan[1], *[1]Physics, Princeton University, USA; [2]Physics, Princeton University & ALS, Berkeley, USA; [3]Physics, ALS, Berkeley, USA; [4]Chemistry, Princeton University, USA; [5]Physics, National Tsing Hua University, China; [6]Physics, National Tsing Hua University & Institute of Physics, Academia Sinica, China; [7]Physics, Northeastern University, USA*

SD05 Topological aspects and transport properties of edge states in the multi-band superconductor Sr_2RuO_4
Yoshiki Imai[1]*, Katsunori Wakabayashi[2] and Manfred Sigrist[3], *[1]Department of Physics, Saitama University, Japan; [2]International Center for Materials Nanoarchitectonics, National Institute for Materials Science, Japan; [3]Theoretische Physik, Eidgenossische Technische Hochschule Zurich, Switzerland*

SD06 Influence of geometry on the edge states of Bi Nanoribbons
Hyun-jung Kim[1], Gustav Bihlmayer[2], Stefan Bluegel[2] and Jun-hyung Cho[1]*, *[1]Department of Physics and Research Institute for Natural Sciences, Hanyang University, Korea; [2]Peter Gruenberg Institut and Institute for Advanced Simulation, Forschungszentrum Juelich and JARA, Germany*

SD07 Magnetotransport measurements in pulsed magnetic fields: a case for Fermiology studies in superconductors and topological insulators
Frederik Wolff-fabris[1]*, Jun Sung Kim[2], Erik Kampert[1], Joonbum Park[2], Man Jim Eom[2], Sergei Zherlitsyn[1], Thomas Herrmannsdoerfer[1] and Jochen Wosnitza[1], *[1]Dresden High Magnetic Field Laboratory (HLD), HZDR, Germany; [2]Department of Physic, Pohang University of Science and Technology, Korea*

SD08 (Moved to other session) First-principles study of spin texture in the multilayer graphene on Ni(111)
Fumiyuki Ishii[1]*, Hiroki Kotaka[2], Keisuke Sawada[3] and Mineo Saito[1], *[1]Faculty of Mathematics and Physics, Kanazawa University, Japan; [2]Graduate School of Natural Science and Technology, Kanazawa University, Japan; [3]Graduate School of Natural Science and Technology, Kanazawa University, Japan*

SD09 A full quantum study on gapless modes and Axion electrodynamics in topological insulator heterostructure systems
Ken Shiozaki[1]*, Takahiro Fukui[2] and Satoshi Fujimoto[1], *[1]Depertment of Physics, Kyoto University, Japan; [2]Depertment of Physics, Ibaraki University, Japan*

SD10 Magnetic properties of rare earth doped Bi_2Te_3
Nahyun Jo, Youngha Choi, Kyujoon Lee and Myung-hwa Jung*, *Physics, Sogang University, Korea*

SD11 Iron doping effect in topological insulator: Bi_2Te_3
Nahyun Jo[1], Youngha Choi[1], Kyujoon Lee[1], Jungwon Jang[2], Jinhee Kim[2], Akio Kimura[3] and Myung-hwa Jung[1]*, *[1]Physics, Sogang University, Korea; [2]Korea Research of Standards and Science, Korea; [3]Physics, Hiroshima University, Japan*

SD12 Magneto transport properties of topological insulator nanoribbons of Bi_2Te_3
Hong-seok Kim[1], Hosun Shin[2], Eun-kyoung Jeon[3], Kung-won Rhie[1], Ju-jin Kim[4], Jeong-o Lee[3], Jaeyong Song[2] and Yong-joo Doh[1]*, *[1]Dept. of Display and Semiconductor Physics, Korea University Sejong Campus, Korea; [2]Korea Research Institute of Standards and Science, Korea; [3]Korea Research Institute of Chemical Technology, Korea; [4]Dept. of Physics, Chonbuk National University, Korea*

SD13 Structural investigations of the topological insulators $Bi_2Se_{3-x}Te_x$
Geetha Balakrishnan[1]*, Ravi Singh[1], Devashibhai Adroja[2], Kevin Knight[2] and Matthias Gutmann[2], *[1]Department of Physics, University of Warwick, United Kingdom; [2]ISIS Facility, Rutherford Appleton Laboratory, United Kingdom*

SD14 Josephson effects in Bi_2Se_3 topological insulator nanoribbons
Hyunho Noh[1], Lee-seul Park[2], Eun-kyoung Jeon[3], Hong-seok Kim[4], Jeong-o Lee[3], Jin Seok Lee[2], Jinhee Kim[1] and Yong-joo Doh[4]*, *[1]Korea Research Institute of Standards and Science, Korea; [2]Dept. of Chemistry, Sookmyung Women's University, Korea; [3]Korea Research Institute of Chemical Technology, Korea; [4]Dept. of Display and Semiconductor Physics, Korea University Sejong Campus, Korea*

SD15 Electronic structure and transport properties of pt based heusler compounds with C1b structure for topological quantum phenomena
Siham Ouardi[1], Gerhard H. Fecher[1], Shekhar Chandra[2], Gloskovskii Andrei[3] and Felser Claudia[1], *[1]Johannes Gutenberg University and Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; [2]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; [3]Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg - University, Mainz, Germany*

SD16 Gapless interface states in topological insulator/semiconductor heterostructures
Hugo Aramberri and Carmen Munoz*, *ICMM- Consejo Superior de Investigaciones Cientificas, Spain*

SD17 Thermoelectric transport in topological insulators
Oleg Tretiakov*, *Physics and Astronomy, Texas A&M University, USA*

SD18 Topological phase in a one-dimensional interacting fermion system
Huaiming Guo, *Department of physics, Beihang University, China*

SD19 (Upgraded to oral) Robustness of 1D topological superconductors with Majorana edge states against lattice modulation
Masaki Tezuka* and Norio Kawakami, *Department of Physics, Kyoto University, Kitashirakawa, Sakyo-ku, Kyoto 606-8502, Japan*

SE: Heavy fermions IV

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Han-Jin Noh (Chonnam National University, Korea)

SE01 Temperature-pressure phase diagram of quadrupolar order in $PrTr_2Al_{20}$ (Tr=Ti,V)
Toshiki Tanaka[1], Kazuyuki Matsubayashi[2]*, Akihiko Hisada[2], Akito Sakai[2], Satoru Nakatsuji[2], Yoshiya Uwatoko[2] and Yasunori Kubo[3], *[1]Graduate School,Nihon Univ, Japan; [2]Institute for Solid State Physics, The University of Tokyo, Japan; [3]College of Humanities and Sciences,Nihon Univ, Japan*

SE02 Soft point contact spectroscopy in the antiferromagnet Ce_2RhIn_8
Eunsung Park[1], Xin Lu[2], Chung Jae Won[3], Nam Jung Hur[3], Eric D. Bauer[2], Joe D. Thompson[2] and Tuson Park[1]*, *[1]Department of Physics, Sungkyunkwan University, Korea; [2]Condensed Matter & Magnet Science Group, Los Alamos National Laboratory, USA; [3]Department of Physics, Inha University, Korea*

SE03 Evidence of a spin gap above the magnetic ordering temperature and crystal field excitations in $CeOs_2Al_{10}$
D T Adroja[1]*, P P Deen[2], A D Hillier[1], Y Muro[3], J Kajino[4], T Takabatake[4], A M Strydom[5], P Peratheepan[5], F Demmel[1], J R Stewart[1] and J Taylor[1], *[1]ISIS Facility, Rutherford Appleton Laboratory, Chilton, OX11 0QX, United Kingdom; [2]European Spallation Source, St Algatan 4, Box 176 Lund 221 00, Sweden; [3]Liberal Arts and Sciences, Toyama Prefectural University, Kurokawa 5180, Imizu 939-0398, Japan; [4]Department of Quantum matter, ADSM, and IAMR, Hiroshima University, Higashi-Hiroshima, 739-8530, Japan; [5]Physics Department, University of Johannesburg, PO Box 524, Auckland Park 2006, South Africa*

SE04 Role of quantum fluctuations in forming heavy-fermions for $Ca_{2-x}SrxRuO_4$
Naoya Arakawa and Masao Ogata, *Department of Physics, The University of Tokyo, Japan*

SE05 Study of long range magnetic ordering and spin gap formation in Ce(Ru1-xFex)2Al10 through muSR and neutron scattering measurements
D T Adroja[1]*, A D Hillier[1], Y Muro[2], J Kajino[3], T Takabatake[3], P Peratheepan[4], A M Strydom[4], P P Deen[5], J R Stewart[1], J Taylor[1], F Demmel[1] and M Adams[1], *[1]ISIS Facility, Rutherford Appleton Laboratory, UK; [2]Liberal Arts and Sciences, Toyama Prefectural University, Kurokawa 5180, Japan; [3]Department of Quantum matter, ADSM, and IAMR, Hiroshima University, Higashi-Hiroshima, 739-8530, Japan; [4]Physics Department, University of Johannesburg, South Africa; [5] European Spallation Source, Sweden*

SE06 Specific heat of structure-disordered heavy-fermion $CexY_{80-x}Mn_{20}$ alloys
Yusuke Amakai[1]*, Shinya Tanaka[1], Yasuhiro Shiojiri[1], Naoki Momono[1], Hideaki Takano[1], Shigeyuki Murayama[1], Yoshihisa Obi[2] and Koki Takanashi[2], *[1]Graduate School of Engineering, Muroran Institute of Technology, Japan; [2]Institute for Material Research, Tohoku University, Japan*

SE07 Synchrotron X-ray diffraction study on crystal structure of URu_2Si_2
Chihiro Tabata[1]*, Reiji Kumai[2], Kensuke Kobayashi[2], Hironori Nakao[2], Yoichi Murakami[2], Makoto Yokoyama[3], Hiroyuki Hidaka[1], Tatsuya Yanagisawa[1] and Hiroshi Amitsuka[1], *[1]Graduate School of Science, Hokkaido University, Japan; [2]CMRC and PF, Institute of Materials Structure Science, High Energy Accelerator Research Organization, Japan; [3]Faculty of Science, Ibaraki University, Japan*

SE08 Spin-density wave order in the 2D heavy fermion system $CePt_2In_7$
Martin Mansson[1]*, Jun Sugiyama[2], Yasmine Sassa[1], Bastian M. Wojek[3], Thomasz Durakiewicz[4], Krunoslav Prsa[1], Olof Gotberg[3], Calin Rusu[5], Daniel Andreica[5], Stephane Pons[6], Marco Grioni[6], Oscar Tjernberg[3] and Eric D. Bauer[4], *[1]Lab. for Solid State Physics, ETH Zurich, Switzerland; [2]Toyota Central Research and Development Labs. Inc., Japan; [3]Materials Physics, Royal Institute of Technology, KTH Stockholm, Sweden; [4]Los Alamos National Laboratory, USA; [5]Faculty of Physics, Babes-Bolyai University, Romania; [6]Institute of Condensed Matter Physics, EPF Lausanne, Switzerland*

SE09 Metal-nonmetal transition in Cr partial substituted $Ni_{0.96}S$
Masanori Matoba*, Yoichi Kamihara and Shuichiro Anzai, *Center for Applied Physics and Physico-Informatics, Keio University, Japan*

SE10 A study of ni-substitution and pressure effects on the heavy-fermion Superconductor $CeCu_2Si_2$
Yoichi Ikeda*, Yuzo Ito, Shingo Araki and Tatsuo C Kobayashi, *Graduate School of Natural Science and Technology, Okayama University, Japan*

SE11 Electrical resistivity measurement under pressure in the heavy fermion antiferromagnetic compound Ce_2PtGa_{12}
Ryo Sasaki[1], Kazuyuki Matsubayashi[1], Takuya Shiraishi[2], Tetsuro Yamashita[2], Shigeo Ohara[2] and Yoshiya Uwatoko[1], *[1]Institute for Solid State Physics, the University of Tokyo, Kashiwa, Chiba 277-8581, Japan; [2]Department of Engineering Physics, Electronics and Mechanics, Graduate School of Engineering, Nagoya Institute of Technology, Nagoya 466-8555, Japan*

SE12 Anisotropy of URhGe
Jack M Barraclough[1]*, Edward A Yelland[1] and Andrew D Huxley[2], *[1]School of Physics and Astronomy, University of St Andrews and Scottish Universities Physics Alliance (SUPA), United Kingdom; [2]School of Physics, University of Edinburgh and SUPA, United Kingdom*

SE13 Study of spin wave and spin gap in single crystals of $CeRu_2Al_{10}$ using inelastic neutron scattering measurements
D T Adroja[1]*, E A Goremychkin[1], A D Hillier[1], Y Muro[2], J Kajino[3] and T Takabatake[3], *[1]ISIS Facility, Rutherford Appleton Laboratory, Chilton, OX11 0QX, United Kingdom; [2]Liberal Arts and Sciences, Toyama Prefectural University, Kurokawa 5180, Imizu 939-0398, Japan; [3]Department of Quantum matter, ADSM, and IAMR, Hiroshima University, Higashi-Hiroshima, 739-8530, Japan*

SE14 Universal behavior in the nonlinear magnetic response of strongly correlated metals
B S Shivaram[1], D G Hinks[2], B Nartowt[3] and Pradeep Kumar[3], *[1]Department of Physics, University of Virginia, USA; [2]Materials Science Division, Argonne National Labs, USA; [3]Department of Physics, University of Florida, USA*

SE15 X-ray absorption studies of the $Ce_2Rh_{1-x}Ir_xIn_8$ intermetallic compounds
Cris Adriano[1], Nilmar Silva Camilo[2], Leandro F Bufaical[3], Leticie Medonca Ferreira[4], Eduardo N Hering[5], Pascoal G. Pagliuso[1] and Raimundo Lora-serrano[2]*, *[1]Instituto de Fisica 'Gleb Wataghin' UNICAMP, CP 6165, 13083-970 Campinas, SP, Brazil; Instituto de Fisica, Universidade Federal de Uberlandia, 38400-902 Uberlandia-MG, Brazil; [3]Instituto de Fisica, Universidade federal de Goias, Goiania-GO, 74001-970, Brazil; [4]Instituto de Fisica e Matematica, Universidade Federal de Pelotas (UFPel), CP 354, 96010-900 Pelotas, Brazil; [5]Centro Brasileiro de Pesquisas Fisicas, Rua Dr. Xavier Sigaud 150, 22290-180 Rio de Janeiro, RJ, Brazil*

SE16 Polarized neutron diffraction study on the magnetic ordering in UMn_2Al_{20}
Przemyslaw Swatek[1]*, Piotr Wisniewski[1], Arsen Gukasov[2] and Dariusz Kaczorowski[1]; *[1]Institute for Low Temperatures and Structure Research, Polish Academy of Sciences, Wroclaw, Poland; [2]Laboratoire Leon Brillouin, CEA-CNRS, CE-Saclay, 91191 Gif sur Yvette, France*

SE17 Antiferromagnetic ordering in single-crystalline Ce_2IrSi_3
Maria Szlawska* and Dariusz Kaczorowski, *Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wrocław, Poland*

SE18 Berezinskii-kosterlitz-thouless transition in heavy fermion superlattices
Jian-huang She* and Alexander V Balatsky, *T-4, Los Alamos National Lab, USA*

SE19 (Withdrawn) Basic properties of the intermetallics APd_5Al_2 (An=Ce, Th, U, Np, Pu, Am)
Jean-christophe Griveau*, Krzysztof Gofryk, Eric Colineau, Thomasz Klimczuk and Jean Rebizant, *ITU-JRC-EC, Germany*

SE20 Study of vibron quasibound state in $CeAg_{1-x}CuxAl_3$, 0<x<1
Cesar De La Fuente[1]*, Agustin Del Moral[1], Devashibhai T. Adroja[2] and Jon Taylor[2], *[1]Fisica de la Materia Condensada, University of Zaragoza & ICMA(CISC), 50071, Zaragoza, Spain; [2]ISIS Facility, Rutherford Appleton Laboratory, Chilton, Didcot, Oxon OX11 0QX., United Kingdom*

SE21 Magnetic properties of cubic $GdTi_2Al_{20}$ single crystal
Ramesh Kumar K, Ruta N Kulkarni, Sudesh Kumar Dhar and Thamizhavel A*, *Department of Condensed Matter Physics and Materials Science, Tata Institute of Fundamental Research, Mumbai 400005, India*

SE22 Investigation of the heavy fermion $Ce_3Ir_4Sn_{13}$ by electrical resistivity under pressure
Jackeline Collave Garcia[1], Scheilla Maria Ramos[2]*, Eduardo Bittar[3], Pascoal Pagliuso[3], Eduardo Hering[2], Magda Fontes[2], Hortencio Alves Borges[1] and Elisa Baggio-saitovitch[2], *[1]Pontificia Universidade Catolica do Rio de Janeiro - PUC-Rio, Brazil; [2]Centro Brasileiro de Pesquisas Fisicas, Brazil; [3]Universidade Estadual de Campinas, Brazil*

SE23 Electronic structure studies of UPt_3 using soft x-ray angle-resolved photoemission spectroscopy and band calculation
Hiroshi Yamagami[1], Ikuto Kawasaki[2], Shin-ichi Fujimori[2], Akira Yasui[2], Tetsuo Okane[2], Yukiharu Takeda[2], Yuji Saitoh[2], Yoshinori Haga[3], Etsuji Yamamoto[3] and Yoshichika Onuki[4], *[1]Department of Physics, Kyoto Sangyo University, Japan; [2]Condensed Matter Science Division, Japan Atomic Energy Agency, Japan; [3]Advanced Science Research Center, Japan Atomic Energy Agency, Japan; [4]Graduate School of Science, Osaka University, Japan*

SF: Non-fermi liquids and quantum phase transitions II

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jeongsoo Kang (The Catholic University of Korea, Korea)

SF01 (Withdrawn) Field-dependent instability of the candidate quantum spin liquid in $EtMe_3Sb[Pd(dmit)_2]_2$ as revealed by NMR
Georgios Koutroulakis[1]*, Tong Zhou[2], Stuart E. Brown[2], Joe D. Thompson[1] and Reizo Kato[3]; *[1]Los Alamos National Laboratory, USA; [2]UCLA, USA; [3]RIKEN, Japan*

SF02 Magnetic states in quasi-2-D iridium oxides with large spin-orbit coupling
Masaaki Isobe[1]*, Hirotaka Okabe1 and Jun Akimitsu[2], *[1]Strongly Correlated Materials Group, National Institute for Materials Science (NIMS), Japan; [2]Department of Physics and Mathematics, Aoyama Gakuin University, Japan*

SF03 Quantum critical end point in ucoal proved by NMR measurements
Hisashi Kotegawa[1], Hiroki Nohara[1], Hideki Tou[1], Tatsuma D. Matsuda[2], Etsuji Yamamoto[2], Yoshinori Haga[2], Zachary Fisk[3], Yoshichika Onuki[4], Valentin Taufour[5], Dai Aoki[5], Georg Knebel[5] and Jacques Flouquet[5], *[1]Kobe University, Japan; [2]JAEA, Japan; [3]University of California, USA; [4]Osaka University, Japan; [5]CEA-Grenoble, France*

SF04 The metal-insulator transition in ferromagnetic chromium hollandite
Yutaka Ueda[1]*, Masahiko Isobe[1], Tooru Yamauchi[1], Akiko Nakao[2], Hironori Nakao[2], Yukinori Ohta[3] and Takehisa Konishi[3], *[1]Institute for Solid State Physics, University of Tokyo, Japan; [2]Condensed Matter Research Center and Photon Factory, IMSS, KEK, Japan; [3]Chiba University, Japan*

SF05 Composition and transverse field-tuned quantum criticality in $NbFe_2$
Sven Friedemann[1], Max Hirschberger[1], Yang Zou[1], William J Duncan[2], Andreas Neubauer[3], Thomas Bauer[4], Louis Pedrero[5], Manuel Brando[5], Christian Pfleiderer[3] and F Malte Grosche[1], *[1]Cavendish Laboratory, University of Cambridge, United Kingdom; [2]Department of Physics, Royal Holloway, University of London, United Kingdom; [3]Physik Department E21, TU Munchen, Germany; [4]Max Planck Insitute for Chemical Physics, Dresden, Germany; [5]Max Planck Institute for Chemical Physics of Solids, Germany*

SF06 (Withdrawn) Tuning ferromagnetism in $Ce_{1-x}LaxAuGe$: A specific heat and magnetic susceptibility study
Buyisiwe M. Sondezi-mhlungu and Andre M. Strydom, *Physics, University of Johannesburg, South Africa*

SF07 Anomalous hybridization effects in the cubic quadrupole systems $PrTr_2Al_{20}$ (Tr= Ti, V)
Akito Sakai*, Eoin O'farrell and Satoru Nakatsuji, *ISSP, University of Tokyo, Japan*

SF08 Non-fermi-liquid properties of the non-centrosymmetric heavy-fermion compound CePtSi: a magnetic field study
Andre Strydom, *Physics, University of Johannesburg, South Africa*

SF09 Vibron quasi-bound state in the non-centrosymmetric tetragonal heavy-fermion compound $CeCuAl_3$
D T Adroja[1]*, A Del Moral[2], C De La Fuente[2], A Fraile[1], E A Goremyhkin[1], J Taylor[1], A Hillier[1] and F Fernandez-alonso[1]; *[1]ISIS Facility, Rutherford Appleton Laboratory, Chilton, OX11 0QX, United Kingdom; [2]Laboratorio de Magnetismo, Depto Fisica Materia Condensada, Universidad de Zaragoza & ICMA, Spain*

SF10 Pressure-induced quantum criticality in the heavy-fermion compound $CeCoGe_{2.2}Si_{0.8}$
J. Larrea J.[1]*, K.-a. Lorenzer[2], M. Muller[1], S. Paschen[1], J. Teysser[3] and H. Ronnow[4], *[1]Institute of Solid State Physics, Vienna University of Technology, Wiedner Haupst. 8 - 10, 1040 Vien, Austria; [2]Institute of Solid State Physics, Vienna University of Technology, Austria; [3]de Physique de la Matiere Condensee, Universite de Geneve, Quai Ernest-Ansermet 24, 1211 Geneve, Switzerland; [4]Laboratory for Quantum Magnetism, Ecole Polytechnique Federale de Lausanne, 1015 Lausanne, Switzerland*

SF11 (Upgraded to oral) Anomalous thermoelectric effects in the heavy fermion superconductor Ce_2PdIn_8
Marcin Matusiak, Daniel Gnida and Dariusz Kaczorowski*, *Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland*

SF12 Unusual normal-state magnetotransport in the heavy-fermion superconductor Ce_2PdIn_8
Daniel Gnida*, Marcin Matusiak and Dariusz Kaczorowski, *Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland*

SF13 Specific heat and thermal conductivity studies of $UCu_{4+x}Al_{8-x}$ compounds
Farzana Nasreen[1], Milton Torikachvili[2], Karunakar Kothapalli[3], Yoshimitsu Kohama4, Vivien Zapf[5] and Heinrich Nakotte[6]*, *[1]Department of Physics & Astronomy, University of Nevada, Las Vegas, NV 89154, USA; [2]Department of Physics, San Diego State University, San Diego CA 92182, USA; [3]Department of Material Science and Engineering, University of Maryland, College Park, MD, 20744, USA; [4]The Institute for Solid State Physics, The University of Tokyo, Japan; [5]MPA-National High Magnetic Field Laboratory, Los Alamos National Laboratory, Los Alamos, New Mexico 87545, USA; [6]Department of Physics, New Mexico State University, Las Cruces, NM 88003, USA*

SF14 Dynamical cluster approximation results of the two-orbital Hubbard model
Hunpyo Lee[1], Yu-zhong Zhang[2], Harald Jeschke[1] and Roser Valenti[1]*, *[1]Institute for Theoretical Physics, University of Frankfurt, Germany; [2]Physics, Tongji University, China*

SF15 Renormalized parameters and convergence of energy scales on the approach to local quantum critical points
D. J. G. Crow[1]*, Yunori Nishikawa[2] and Alex Hewson[1], *[1]Department of Mathematics, Imperial College London, United Kingdom; [2]Graduate School of Science, Osaka City University, Japan*

SG: New developments

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Jai Seok Ahn (Pusan National University, Korea)

SG01 NMR study of magnetic properties of $Eu_{1-x}SrxMnO_3$
Kenji Shimizu[1], Masanori Yamaguchi[1], Shujuan Yuan[2] and Shixun Cao[2], *[1]Physics, Faculty of Science, University of Toyama, Japan; [2]Physics, Shanghai University, China*

SG02 NMR study of successive magnetic transitions in A-site ordered perovskite $LaMn_3Cr_4O_{12}$
Y. Kawasaki[1], S. Takase[1], Y. Kishimoto[1], T. Ohno[1], I. Yamada[2], K Shiro[2], R. Takahashi[2], K. Ohgushi[3], N. Nishiyama[4], T. Inoue[4] and T. Irifune[4], *[1]Institute of Technology and Science, The University of Tokushima, Japan; [2]Graduate School of Science and Engineering, Ehime University, Japan; [3]Institute for Solid State Physics, University of Tokyo, Japan; [4]Geodynamics Research Center, Ehime University, Japan*

SG03 Magnetic properties of single crystalline U_2Fe_3Ge
Margarida Henriques[1]*, Denis Gorbunov[2], Ladislav Havela[3], Alexander Andreev[2] and Antonio Goncalves[1], *[1]UCQR, Technological and Nuclear Institute, Portugal; [2]Institute of Physics, Academy of Sciences of the Czech Republic, Czech Republic; [3]Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University, Czech Republic*

SG04 **Magnetic properties of a 5d transition metal oxide $AOsO_4$ (A = K, Rb, Cs)**
Junichi Yamaura, Kenya Ohgushi and Zenji Hiroi, *Institute for Solid State Physics, University of Tokyo, Japan*

SG05 **Enhancement of curie temperature due to the coupling between fe itinerant electrons and Dy localized electrons in $DyFe_2Zn_{20}$**
Yosikazu Isikawa[1], Toshio Mizushima[1], Souta Miyamoto[1], Keigou Kumagai[1], Mako Nakahara[1], Hiroaki Okuyama[1], Takashi Tayama[1], Tomohiko Kuwai[1] and Pascal Lejay[2], *[1]Graduate School of Science and Engineering, University of Toyama, Japan; [2]Institute Neel, MCMF, CNRS, France*

SG06 (Moved to other session) **Anomalous increase of TC in UGa_2 under pressure**
Ladislav Havela[1], A. Kolomiets[2], J. Prchal[1] and A. V. Andreev[3], *[1]Department of Condensed Matter Physics, Charles University, Czech Republic; [2]Department of Physics, Lviv Polytechnic National University, Ukraine; [3]Institute of Physics, Academy of Sciences of the Czech Pepublic, Czech Republic*

SG07 **Phase transition between paramagnetic and spin polarized states in MnSi**
Sergey Demishev*, Vladimir Glushkov, Inna Lobanova, Vsevolod Ivanov, Nickolay Sluchanko and Alexey Semeno; *Low Temperatures and Cryogenic Engineering, General Physics Institute of RAS, Russia*

SG08 **ESR in mnsi: Heisenberg localized magnetic moments and spin polarons**
Sergey Demishev*, Alexey Semeno, Vladimir Glushkov, Nickolay Sluchanko and Nickolay Samarin, *Low Temperatures and Cryogenic Engineering, General Physics Institute of RAS, Russia*

SG09 **Magnetic susceptibility measurements at high pressures down to T=0.5 K with SQUID magnetometer**
Yoshiaki Sato[1]*, Shun Makiyama[1], Yasutaka Sakamoto[1], Tadahiko Hasuo[1], Yuji Inagaki[1], Tetsuya Fujiwara[2] and Tatsuya Kawae[1], *[1]Department of Applied Quantum Physics, Kyushu University, Japan; [2]Graduate School of Science and Engineering, Yamaguchi University, Japan*

SG10 **Extinction of photo-luminescence of Mn-doped ZnS nanocolloids in weak magnetic field**
Hong-van Bui[1], Van-ben Pham[1], Nam-nhat Hoang[2]* and Van-chau Dinh[2], *[1]Faculty of Physics, Vietnam National University, University of Natural Sciences, Viet Nam; [2]Faculty of Technical Physics and Nanotechnology, Vietnam National University, University of Engineering and Technology, Viet Nam*

SG11 **Electronic structure of A-site ordered perovskite $CaCu_3Ti_4O_{12}$ studied by angle-resolved photoemission spectroscopy**
H. J. Im[1]*, M. Tsunekawa[2], T. Sakurada[1], K. Kawata[1], T. Watanabe1, K. Takegahara[1], H. Miyazaki[3] and S. Kimura[4], *[1]Department of Advanced Physics, Hirosaki University, Japan; [2]Faculty of Education, Shiga University, Japan; [3]Department of Environmental and Materials Engineering, Nagoya Institute of Technology, Japan; [4]UVSOR Facility, Institute for Molecular Science, Japan*

SG12 **Evidence of rattling transition in caged compounds $LaRu_2Zn_{20}$ and $LaIr_2Zn_{20}$: La-NMR studies**
Hideki Tou[1]*, Kenji Asaki[1], Hisahi Kotegawa[1], Takahiro Onimaru[2], Keisuke T. Matsumoto[2], Yukihiro F Inoue[2] and Toshiro Takabatake[2], *[1]Department of Physics, Graduate School of Science, Kobe University, Japan; [2]ADSM, Hiroshima University, Japan*

SG13 **Unconventional magnetic ordering in spin-orbit mott insulator with honeycomb lattice**
Soham Manni[1]*, Yogesh Singh[2] and Phlipp Gegenwart[1], *[1]I. Physikalisches Institut, Georg-August-Universitaet Goettingen, Germany; [2]IISER Mohali, India*

SG14 **YCr_6Ge_6: A kagome metal?**
Yui Ishii[1]*, Yoshihiko Okamoto[1], Junichi Yamaura[1], Hisatomo Harima[2] and Zenji Hiroi[1], *[1]ISSP, Univ. Tokyo, Japan; [2]Dept. of Physics, Kobe Univ., Japan*

SG15 **Raman scattering spectra of $PrRu_2Zn_{20}$**
Norio Ogita[1]*, Takumi Hasegawa[1], Masayuki Udagawa[1], Keisuke Matsumoto[2], Takahiro Onimaru[2] and Toshiro Takabatake[2], *[1]Graduate School of Arts and Sciences, Hiroshima Univ., Japan; [2]Graduate School of Advanced Sciences of Matter, Hiroshima Univ., Japan*

SG16 **Superconducting state in KSn_2 with a $MgZn_2$-type (C14) Laves phase structure**
Shota Miyazaki, Kenji Kawashima, Tsukasa Ipponjima, Michinori Fukuma and Jun Akimitsu, *Physics and Mathematics, Aoyama Gakuin University, Japan*

SG17 **Layered nanosized structures on basis of diluted magnetic semiconductors and heusler alloys**
Evgeny Sergeevich Demidov*, Ekaterina Pavlova, Aleksandr Bobrov, Vitaliy Podolskii, Valeriy Lesnikov, Sergey Gusev and Anton Tronov, *Solid State Electronics Chair, Nizhny Novgorod State University, Russia*

SG18 **Metal-insulator and spin-state transition in polycrystalline $(Pr_{1-y}REy)_{1-x}CaxCoO_3$ (RE=rare earth elements) in magnetic fields**
Tomoyuki Naito[1]*, Hiroko Sasaki[1], Motoharu Kato[1], Satoru Ogawa[1], Hiroyuki Fujishiro[1], Terukazu Nishizaki[2] and Norio Kobayashi[2], *[1]Iwate University, Japan, [2]Institute for Materials Research, Tohoku University, Japan*

SG19 **Magnetic field-induced lattice effects in a quasi-2D organic conductor close to the Mott metal-insulator transition**
Mariano De Souza[1]*, Andreas Bruel[2], Christian Strack[2], Dieter Schweitzer[3] and Michael Lang[2], *[1]Physics, Universidade Estadual Paulista - Unesp (Sao Paulo State University), Brazil; [2]Physics, Goethe-Universitat Frankfurt, Germany; [3]Physics, Stuttgart Universitat, Germany*

SG20 **Metallic transition of the colossal magnetoresistance material $FexMn_{1-x}S$ (x=0.18) under high pressure**
Yoshimi Mita[1]*, Tomoko Kagayama[2], G. M. Abramova[3], G. A. Petrakovskii[3] and V. V. Sokolov[4], *[1]Materials Physics, Engineering Science, Osaka University, Japan; [2]Center of Quantum Science and Technology under Extreme Conditions, Osaka University, Japan; [3]L.V.Kirensky Institute of Physics, Russia; [4]A.V.Nikolaev Institute of Inorganic Chemistry, Russia*

SG21 **Optimal design of IPMSM having double barrier for minimizing cogging torque and torque ripple**
Hyoung Uk Nam[1], Hyun Rok Cha[1], Kwang Heon Kim[2], Dae Young Lym[1] and Tae Won Jeong[1], *[1]Automotive R&D, Korea Institute of Industrial Technology, Korea; [2]Department of Electrical Engineering, University of the Chonnam, Korea*

SG22 **Implementation of first-principle calculation in combination with a dynamical cluster approximation**
Hunpyo Lee[1], Kateryna Foyevtsova[1], Johannes Ferber[1], Markus Aichhorn[2], Harald Jeschke[1] and Roser Valenti[1]*, *[1]Institute for Theoretical Physics, University of Frankfurt, Germany; [2]Institute for Theoretical and computational Physics, TU Graz, Austria*

SH: Domain and domain walls

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Mathias Klaui (Johannes Gutenberg Univeritat Mainz, Germany)

SH01 **Oscillatory transformative domain wall inner structure of depinning domain wall around notched ferromagnetic wire**
Dede Djuhana[1]*, Bambang Soegijono[1], Hong-guang Piao[2], Suhk Kun Oh[3], Seong-cho Yu[3] and Dong-hyun Kim[3], *[1]Physics, Department of Physics, university of Indonesia, Indonesia; [2]Materials Science and Engineering, Department of Materials Science and Engineering, Tsinghua University, Beijing, China; [3]Physics, Chungbuk National University, Cheongju 361-763, Korea*

SH02 **Unidirectional thermal effects in current-induced domain wall motion**
Jacob Torrejon[1], Gregory Malinowski[1], Javier Curiale[1], Andre Thiaville[1]*, Daniel Lacour[2], Francois Montaigne[2] and Michel Hehn[2], *[1]Laboratoire de Physique des Solides, Universite Paris-Sud, CNRS , 91405 Orsay, France; [2]Institut Jean Lamour, Universite Nancy I, 54506 Vandoeuvre-les-Nancy, France*

SH03 **Effect of the oersted field on current-induced domain wall motion and domain wall chirality in multilayer nanostripes**
Stefania Pizzini[1]*, Zahid Ishaque[1], Jan Vogel[1], Vojtech Uhlir[1], Nicolas Rougemaille[1], Olivier Fruchart[1], Jean-christophe Toussaint[1], Julio Camarero[2], Julio C. Cezar[3] and Fausto Sirotti[4], *[1]Institut Neel, Centre National de la Recherche Scientifique, Grenoble, France; [2]Universidad Autonoma de Madrid, Spain; [3]European Synchrotron Radiation Facility (ESRF), Grenoble, France; [4]Synchrotron SOLEIL, Gif sur Yvette, France*

SH04 **Domain-wall motion in permalloy nanowires with magnetic soft spots**
Andreas Vogel[1]*, Sebastian Wintz[2], Theo Gerhardt[1], Lars Bocklage[1], Thomas Strache[2], Mi-young Im[3], Peter Fischer[3], Juergen Fassbender[2], Jeffrey Mccord[4] and Guido Meier[1], *[1]Institut fuer Angewandte Physik und Zentrum fuer Mikrostrukturforschung, Universitaet Hamburg, Germany; [2]Institut fuer Ionenstrahlphysik und Materialforschung, Helmholtz-Zentrum Dresden-Rossendorf, Germany; [3]Center for X-ray Optics, Lawrence Berkeley National Laboratory, USA; [4]Institut fuer Materialwissenschaften, Christian-Albrechts-Universitaet zu Kiel, Germany*

SH05 **Direct observation of nearly mass-less domain walls in nanostripes with perpendicular magnetic anisotropy**
Stefania Pizzini[1]*, Jan Vogel[1], Marlio Bonfim[2], Olivier Boulle[3], Emilie Jue[3], Nicolas Rougemaille[1], Mihai Miron[3], Ales Hrabec[1], Gilles Gaudin[3], Julio C. Cezar[4] and Fausto Sirotti[5], *[1]Institut Neel, Centre National de la Recherche Scientifique, Grenoble, France; [2]Departamento de Engenharia Eletrica, Universidade do Parana, Curitiba, Brazil; [3]Spintec, CEA/CNRS/UJF/GINP, INAC, Grenoble, France; [4]European Synchrotron Radiation Facility (ESRF), Grenoble, France; [5]Synchrotron SOLEIL, Gif-sur-Yvette, France*

SH06 **Modified phase diagram of domain walls in FeNi/Cu/Co nanostripes**
Nicolas Rougemaille[1]*, Vojtech Uhlir[1], Olivier Fruchart[1], Zahid Ishaque[1], Jan Vogel1, Stefania Pizzini[1], Zoukaa Kassir-bodon[1], Aurelien Massboeuf[2], Andrea Locatelli[3], Onur Mentes[3], Michal Urbanek[4] and Jean-christophe Toussaint[1], *[1]Institut Neel, Centre National de la Recherche Scientifique, Grenoble, France; [2]Laboratoire d'Etude des Materiaux par Microscopie Avancee, INAC/CEA, Grenoble, France; [3]Sincrotrone ELETTRA, Trieste, Italy; [4]Institute of Physical Engineering, Brno University of Technology, Brno, Czech Republic*

SH07 **Effect of current on a threshold width for a dimensional transition of domain wall dynamics in Co/Ni**
Kab-jin Kim[1]*, D. Chiba[1], K. Kobayashi[1], S. Fukami[2], M. Yamanouchi[2], H. Ohno[2] and T. Ono[1], *[1]Institute for Chemical Research, Kyoto University, Uji, Kyoto, Japan; [2]Center for Spintronics Integrated Systems, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan*

SH08 **Simulations of field driven domain wall motion in permalloy nanowires with difference dimension**
Chia-chi Chang[1], Chao-hsien Huang[2], Tian-chiuan Wu[3], Jong-ching Wu[2] and Lance Horng[2], *[1]Department of Physics, National Changhua University of Education, Taiwan; [2]Department of Physics, Taiwan SPIN Research Center, National Changhua University of Education, Taiwan; [3]Department of Electronic Engineering, National Formosa University, Taiwan*

SH09 **Voltage control of magnetisation and magnetic domain configurations in magnetostrictive epitaxial $Fe_{1-x}Ga_x$ thin films**
Duncan E Parkes[1], Stuart A Cavill[2], Aidan T Hindmarch[3], Peter Wadley[1], Fintan Mcgee[1], Kevin W Edmonds[1], Richard P Campion[1], Andrew W Rushforth[1]* and Bryan L Gallagher[1], *[1]School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, United Kingdom; [2]Beamline I06, Diamond Light Source Chilton, Didcot, Oxfordshire OX11 0DE, United Kingdom; [1,3]Centre for Materials Physics, Durham University, South Road, Durham, DH1 3LE, United Kingdom*

SH10 **Restricted oscillation period effect in the domain wall propagation after walker breakdown**
Xiao-ping Ma[1], Zhe Fan[1], Je-ho Shim[2], Sang-hyuk Lee[2], Djati Handoko[2], Hong-guang Piao[3]* and Dong-hyun Kim[2], *[1]Science of College, Huaihai Institute of Technology, China; [2]Department of Physics, Chungbuk National University, Korea; [3]Materials Science and Engineering, Tsinghua University, China*

SH11 **Domain wall motion by thermal gradients in Fe/W(110)**
Jonathan Philippe Chico Carpio[1]*, Anders Bergman[1], Lars Bergqvist[2] and Olle Eriksson[1], *[1]Physics and Astronomy (Materials Theory Division), Uppsala University, Sweden; [2]Dept. of Materials Science and Engineering, Royal Institute of Techonolgy (KTH), Sweden*

SH12 **Transverse domain wall motion in notched ferromagnetic nanowire by spin transfer torque**
Arnab Ganguly, Anjan Barman and Saswati Barman*, *Condensed Matter Physics and Material Sciences, S. N. Bose National Centre for Basic Sciences, Saltlake, Kolkata, India*

SH13 **Domain wall configuration and magneto-transport properties in dual spin-valve with**
Byong Sun Chun[1]*, Chanyong Hwang[1], Han-chun Wu[2], Mohamed Abid[3], Su Jung Noh[4] and Young Keun Kim[4], *[1]Korea Research Institute of Standards and Science, Korea; [2]CRANN, School of Physics, Trinity College Dublin, Ireland; [3]Ecole Polytechnique Federale de Lausanne, Switzerland; [4]Department of Materials Science and Engineering, Korea University, Korea*

SH14 **Dynamics of domain-wall oscillations in magnetic nanorings driven by circularly rotating fields**
Youn-seok Choi, Young-sang Yu, Dong-soo Han, Hyunsung Jung, Ki-suk Lee and Sang-koog Kim*, *National Creative Research Initiative Center for Spin Dynamics & Spin-Wave Devices & Nanospinics Lab, Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Seoul, Korea*

SH15 (Withdrawn) **Modeling field-induced transformations of domain walls in magnetic stripes**
Andrzej Janutka, *Institute of Physics, Wroclaw University of Technology, Poland*

SH16 **Interaction between propagating spin-waves and domain walls on a ferromagnetic nanowire**
June Seo Kim[1], Martin Staerk[2], Jungbum Yoon[3], Chun Yeol You[3], Luis Lopez-diaz[4], Eduardo Martinez[4] and Mathias Klaeui[1]*, *[1]Institut fuer Physik, Johanes Gutenberg-Universitaet Mainz, Germany; [2]Fachbereich Physik, Universitaet Konstanz, Germany; [3]Department of Physics, Inha University, Korea; [4]Department of Physics, Universidad de Salamanca, Spain*

SI: Spin waves

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Kyung-Jin Lee (Korea University, Korea)

SI01 **Spin oscillations in a free molecular magnet**
Gwang-hee Kim, *Physics, Sejong University, Korea*

SI02 **Effects of nonlinear spin dynamics on spin pumping**
Sankha Subhra Mukherjee, Praveen Deorani, Siddharth Rao, Jae Hyun Kwon and Hyunsoo Yang*, *ECE, National University of Singapore, Singapore*

SI03 **Sharp spectral linewidth in spin torque oscillator with perpendicular magnetized Co/Pd free layer**
Yuki Kawada*, Hiroshi Naganuma, Mikihiko Oogane and Yasuo Ando, *Applied Physics, Tohoku university, Japan*

SI04 **Clocking schemes for soliton propagation in a ferromagnetically-coupled quantum-dot chain**
Kyeong-dong Lee[1]*, Hyon-seok Song[1], Chun-yeol You[2] and Sung-chul Shin[3], *[1]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, Korea; [2]Department of Physics, Inha University, Korea; [3]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, and Department of Emerging Materials Science, DGIST, Korea*

SI05 Spin wave propagation in single crystal Au(001)/Fe(001)/MgO(001) waveguides
Yoichi Shiota, Shinji Miwa, Norikaze Mizuochi, Teruya Shinjo and Yoshishige Suzuki*, *Graduate School of Engineering Science, Osaka University, Japan*

SI06 Microscopic theory on the spin relaxation in an inhomogeneous spin dynamics
Nobuyuki Umetsu, Daisuke Miura and Akimasa Sakuma, *Tohoku University, Japan*

SI07 Ultrafast transfer of spin in a non-collinearly magnetized multilayer
Koen Kuiper*, Sjors Schellekens and Bert Koopmans, *Eindhoven University of Technology, Netherlands*

SI08 Investigation of spin wave interference circuit with metallic thin film
Nana Sato[1], Koji Sekiguchi[2]* and Yukio Nozaki[3], *[1]Department of Physics, Keio University, Japan; [2]Department of Physics, Keio University, PRESTO, JST, Japan; [3]Department of Physics, Keio University, CRESTO, JST, Japan*

SI09 Current-induced magnetization dynamics of synthetic anti-ferromagnetic free layers
Seo-won Lee[1], Daria Gusakova[2], Liliana Buda-prejbeanu[2], Ursula Ebels[2], Bernard Dieny[2] and Kyung-jin Lee[1]*, *[1]Department of Material Science and Engineering, Korea University, Korea; [2]SPINTEC, UMR CEA/CNRS/UJF & G-INP, INAC, France*

SI10 (Withdrawn) Magnon excitation studies in strongly correlated electron systems
Cecilia I. Ventura[1]*, Marcello Acquarone[2] and Ivon R. Buitrago[3], *[1]Teoria de Solidos, Centro Atomico Bariloche, and Univ. Nac. Rio Negro, Argentina; [2]IMEM-CNR, Dip. di Fisica, Universita di Parma, Italy; [3]Teoria de Solidos, Centro Atomico Bariloche, and Inst. Balseiro, Argentina*

SI11 Magnetoplasmonic hybrid nanoparticles
Francesco Pineider[1]*, Giulio Campo[2], Cesar De Julian Fernandez[1] and Claudio Sangregorio[1], *[1]Department of Chemistry, University of Florence, CNR-ISTM, Italy; [2]Department of Chemistry, University of Florence, Italy*

SI12 Inhomogeneous standing spin wave excited by the patterned periodic electrode
Kohei Kiseki[1], Satoshi Yakata[1] and Takashi Kimura[2]*, *[1]Kyushu University, Japan; [2]Kyushu Univsersity, Japan*

SI13 Observation of spin-waves by time-resolved magneto-optic kerr effect microscope
Sang-jun Yun[1], Jae-chul Lee[2], Kyung-ho Shin[2] and Sug-bong Choe[1]*, *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]Spin Device Research Center, Korea Institute of Science and Technology, Korea*

SI14 Nuclear magnetic resonance study of proton dynamics in ZnO
Jun Kue Park, Kyu Won Lee and Cheol Eui Lee*, *Department of Physics, Department of Physics and Institute for Nano Science, Korea University, Seoul 136-713, Korea*

SI15 Micromagnetic study of magnonic band gaps in waveguides with a periodic variation of the saturation magnetization
Florin Ciubotaru*, Andrii V. Chumak, Bjoern Obry, Alexander A. Serga and Burkard Hillebrands. *Faculty of Physics, University of Technology, Kaiserslautern, Germany*

SI16 Spin-transfer induced spin waves of a magnetic point contact with a confined domain wall
Hiroko Arai, Hiroshi Tsukahara and Hiroshi Imamura*, *Advanced industrial science and technology (AIST), Japan*

SI17 Spin-torque-nano-oscillator using the perpendicular magnetized CoFeB/MgO/CoFeB magnetic tunnel junctions
Hiroshi Naganuma[1]*, Nobuhito Inami[1], Yuki Kawada[1], Mikihiko Oogane[1], Yasuo Ando[1], Kotaro Mizunuma[2], Hideo Sato[3], Michihiko Yamanouchi[3], Shoji Ikeda[4] and Hideo Ohno[4], *[1]Department of Applied Physics, Tohoku University, Japan; [2]RIEC, Tohoku University, Japan; [3]CSIS, Tohoku University, Japan; [4]CSIS, RIEC, Tohoku University, Japan*

SI18 Planar approximation for spin-transfer devices with tilted polarizer
Ya. B. Bazaliy*, *Department of Physics and Astronomy, University of South Carolina, Columbia SC, USA and Institute of Magnetism of NASU, Ukraine*

SJ: Modeling

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: Dieter Suess (Technische Universitat Wien, Austria)

SJ01 Fast SpinRAM simulation by GPU
Kiyoaki Oomaru* and Yoshinobu Nakatani, *The University of Electro-Communications, Japan*

SJ02 Micromagnetic simulations for the spin dynamics and Gilbert damping constants in nano-dot with perpendicular magnetic anisotropy
Jungbum Yoon[1], Chun-yeol You[1]* and Myung-hwa Jung[2], *[1]Department of Physics, Inha Universirty, Korea; [2]Department of Physics, Sogang Universirty, Korea*

SJ03 Micromagnetic study on micro-structured ferromagnetic thin film for high frequency device applications
Keigo Ito, Teppei Takashima, Terumitsu Tanaka* and Kimihide Matsuyamam, *ISEE, Kyushu University, Japan*

SJ04 Atomistic modelling of magnetization dynamics with spin torque
Phanwadee Chureemart, Richard F. L. Evans, Irene D'amico and Roy W. Chantrell, *Physics, University of York, United Kingdom*

SJ05 Highly parallelized micromagnetic simulator using fast multipole method
Sung-hyun Lee[1], Chun-yeol You+ and Sung-chul Shin[3]*. *[1]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, Daejeon 305-701, Korea; [2]Department of Physics, Inha University, Incheon 402-751, Korea; [3]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, Daejeon 305-701, Korea, Department of Emerging Material Science, DGIST, Daegu 711-873, Korea*

SJ06 Effect of calculation conditions on the numerical simulation of magnetic materials with random magnetic anisotropy
S. J. Lee[1], Suguru Sato[1], Hideto Yanagihara[1], Eiji Kita[1]* and Chiharu Mitsumata[2], *[1]Institute of Applied Physics, University of Tsukuba, Japan; [2]Graduate School of Engineering, Tohoku University, Japan*

SJ07 Vortex and antivortex formation in magnetic rolled-up nanotubes
Jehyun Lee[1], Denys Makarov[2], Robert Streubel[2], Carlos Cesar Bof Bufon[2], Celine Vervacke[2], Dieter Suess[3], Josef Fidler[3], Oliver G Schmidt[2] and Sang-koog Kim[1]*, *[1]National Creative Research Center for Spin Dynamics & Spin-Wave Devices and Nanospinics Lab., Research Institute of Adv. Materials, Dep. of Materials Sci. & Eng., Seoul Nat'l Univ., Korea; [2]Institute for Integrative Nanosciences, IFW Dresden, Germany; [3]Institute of Solid State Physics, Vienna University of Technology, Austria*

SJ08 Magneto resistance study using micro magnetic simulations in permalloy nano ladder
Venkateswarlu Dasari*, Vineeth Mohanan Parakkat and Anil P. S. Kumar, *Physics, Indian Institute of Science, India*

SJ09 Soft layer driven switching of microwave-assisted magnetic recording on segmented perpendicular media
Jing Qiang Goh[1]*, Zhi-min Yuan[2], Lei Shen[2], Tiejun Zhou[2] and Yuan Ping Feng[1], *[1]Department of Physics, National University of Singapore, Singapore; [2]Data Storage Institute, Agency for Science, Technology and Research, Singapore*

SK: Spin electronics II

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairpersons: A. Thomas (Bielefeld University, Germany)
Byong-Guk Park (KAIST, Korea)

SK01 Top composite free layer non-collinear spin valve for hysteresis-free GMR sensors
Vladimir V. Ustinov*, Michael A. Milyaev, Larisa I. Naumova, Tatiana P. Krinitsina and Vladimir V. Proglyado; *Institute of Metal Physics, Ural Branch of Russian Academy of Sciences, Russia*

SK02 Strong <111> texture and low hysteresis in MnIr-based top spin valve
Mikhail Milyaev, Larisa Naumova, Vyacheslav Proglyado, Tatiana Krinitsina, Nataliya Bannikova and Vladimir Ustinov, *Institute of Metal Physics UB RAS, Russia*

SK03 Low temperature crystallization process in Co_2FeSi Heusler alloy thin films
Luke Fleet[1], M. J. Walsh[1], J. Sagar[1], T. Nakayama[2] and A. Hirohata[1]*, *[1]The University of York, United Kingdom; [2]Nagaoka University of Technology, Japan*

SK04 Spin-polarized itinerant electrons in Co_2MnAl and Co_2MnSi studied by magnetic Compton scattering
Soichiro Mizusaki[1], Tomohiro Ohnish[1], Masayoshi Itou[2], Yoshiharu Sakurai[2], Tadashi C Ozawa[3], Hiroaki Samata[4], Yoshihiko Noro[5] and Yujiro Nagata[1], *[1]Aoyama Gakuin University, Japan; [2]Japan Synchrotron Radiation Research institute (JASRI/SPring-8), Japan; [3]International Center for Materials Nanoarchitectonics, National Institute for Materials Science, Japan; [4]Kobe University, Japan; [5]Kawazoe Frontier Technologies, Co. Ltd., Japan*

SK05 Evidence of inelastic tunneling in magnetic tunnel junctions via capacitance-voltage characteristics
Ajeesh M Sahadevan[1]*, Gopinadhan Kalon[2], Charanjit S Bhatia[1] and Hyunsoo Yang[2], *[1]Department of Electrical & Computer engineering, National University of Singapore, Singapore; [2]Department of Electrical & Computer engineering, NUSNNI-Nanocore, National University of Singapore, Singapore*

SK06 Spin-polarization measurements for Co_2MnSi using Co_2MnSi/MgO/NbN epitaxial tunnel junctions
Ken-ichi Matsuda, Takaho Shinoki, Tomoyuki Taira, Tetsuya Uemura and Masafumi Yamamoto, *Div. of Electronics for Informatics, Hokkaido University, Japan*

SK07 Variation of point-contact andreev reflection spectra of ferromagnetically ordered metals
Elina Tuuli* and Kurt Gloos, *Department of Physics and Astronomy, University of Turku, Finland*

SK08 Fabrication of Highly Sensitive Magnetic Tunnel Junctions for Bio-magnetic Field Sensor Application
Kosuke Fujiwara[1]*, Mikihiko Oogane[1], Takuo Nishikawa[2], Saeko Yokota[1], Hiroshi Naganuma[1] and Yasuo Ando[1], *[1]Department of Applyed Physics, Tohoku University, Japan; [2]LC Business Department, Konicaminolta Opto,Inc., Japan*

SK09 Oscillatory exchange coupling and strong magnetoresistance effect in Fe/AgX/Fe (001) heterostructures with X=Cl and Br
Petru Vlaic[1]* and Emil Burzo[2], *[1]Biophysics Department, University of Medicine and Pharmacy 'Iuliu Hatieganu' 400023 Cluj-Napoca, Romania; [2]Faculty of Physics, Babes-Bolyai University RO-400084 Cluj-Napoca, Romania*

SK10 Transport properties in double MgO barrier magnetic tunnel junctions with Fe nano-particles
Pham Van Thach, Do Bang, Shinji Miwa, Takayuki Nozaki, Eiichi Tamura, Norikazu Mizuochi, Teruya Shinjo and Yoshishige Suzuki*, *Graduate School of Engineering Science, Osaka University, Toyonaka, Osaka 560-8531, Japan*

SK11 Characterisation of Epitaxial and Polycrystalline Co_2FeSi thin films
James Sagar[1], Hiroaki Sukegawa[2], Leonardo Lari[3], Vlado K Lazarov[3], Seiji Mitani[4] and Atsufumi Hirohata[5]*, *[1]Department of Physics, University of York, United Kingdom; [2]Magnetic Materials Centre, National Institute for Materials Science (NIMS), 1-2-1 Sengen, Tsukuba 305-0047, Japan; [3]Department of Physics, University of York, York, YO10 5DD, United Kingdom; [4]Magnetic Materials Centre, National Institute for Materials Science (NIMS), 1-2-1 Sengen, Tsukuba, Japan; [5]Department of Electronics, University of York, York, YO10 5DD, United Kingdom*

SK12 Inverse spin polarization at benzene/iron interface
Souraya Goumri-said*, Mohammed Benali Kanoun, Udo Schwingenschlogl and Aurelien Manchon, *Physical Sciences and Engineering Division, King Abdullah University of Science and Technology (KAUST), Saudi Arabia*

SK13 Local atomic structure analysis of ferromagnetic semiconductor GeMnTe by atomic resolution holography
Naohisa Happo[1]*, Yuki Takehara[1], Makoto Fujiwara[1], Koichi Tanaka[1], Fumihiko Matsui[2], Hiroshi Daimon[2], Tomohiro Matsushita[3], Kyoko Okada[3], Shinya Senba[4], Shinya Hosokawa[5], Kouichi Hayashi[6] and Hironori Asada[7], *[1]Graduate School of Information Sciences, Hiroshima City University, Japan; [2]NAIST, Japan; [3]SPring-8/JASRI, Japan, [4]Ube National College of Technology, Japan; [5]Hiroshima Institute of Technology, Japan; [6]IMR, Tohoku University, Japan; [7]Yamaguchi University, Japan*

SK14 Dependence of the tunneling magnetoresistance on the inserted nonmagnetic layer
Changsik Choi and Byung Chan Lee*, *Department of Phyics, Inha University, Korea*

SK15 The bulk Fe-Mo double perovskite analyzed from a small clusters perspective
Eliel Carvajal Quiroz[1]*, Raul Oviedo Roa[2], Miguel Cruz Irisson[1] and Oracio Navarro[3], *[1]Instituto Politecnico Nacional, ESIME-Culhuacan, Mexico, [2]Programa de Investigacion en Ingenieria Molecular, Instituto Mexicano del Petroleo, Mexico, [3]Instituto de Investigaciones en Materiales, Universidad Nacional Autonoma de Mexico, Mexico*

SK16 Tunneling magnetoresistance effect in magnetic tunneling junctions with a high resistance ferromagnetic oxide $Fe_{2.5}M_{0.5}O_4$(M = Mn, Zn) electrode
Eiji Shikoh[1]*, Teruo Kanki[2], Hidekazu Tanaka[2], Teruya Shinjo[1] and Masashi Shiraishi[1], *[1]Eng. & Sci., Osaka University, Japan; [2]ISIR, Osaka University, Japan*

SK17 Monitoring of gamma radiation interaction in PHR sensor
D. G. Park and Hoon Song, *korea atomic energy research institute, Korea*

SK18 Reactively sputtered MgAl2O4 barrier layers for Heusler tunnel junctions
Keima Inagaki*, Naoto Fukatani, Kenichiro Mari, Hirohito Fujita, Tetsuya Miyawaki, Kenji Ueda and Hidehumi Asano, *Crystalline Materials Science, Nagoya University, Japan*

SK19 Half-metallic properties of (001) surfaces of the Cr substituted rock-salt GeTe-based compounds
Kalpana Kamalkishor Landge, Beata Bialek and Jae Il Lee*, *Physics, Inha university, Korea*

SK20 Electronic structure and spin polarization of $Co_{2-x}Fe_{1+x}Si$ Heusler alloy
Hiroyoshi Itoh[1]* and Syuta Honda[2], *[1]Department of Pure and Applied Physics, Kansai University, Japan; [2]Faculty of Pure and Applied Science, University of Tsukuba, Japan*

SK21 Large enhancement of Kerr rotation of GMR periodic patterns using Pt / Co free layer
Kakeru Wada[1], Tsukasa Kobayashi[1], Yuuki Oshino[1], Hiroshi Ono[2], Tatsutoshi Shioda[2], Kenji Machida[3], Ken-ichi Aoshima[3], Kiyoshi Kuga[3], Hiroshi Kikuchi[3], Naoki Shimidzu[3], Akira Emoto[4] and Takayuki Ishibashi[1]*, *[1]Department of Materials Science Technology, Nagaoka University of Technology, Japan; [2]Department of Electrical Engineering, Nagaoka University of Technology, Japan; [3]Science and Technical Research Laboratories, Japan Broadcasting Corp, Japan; [4]National Institute of Advanced Industrial Science and Technology, Japan*

SK22 Ab-initio and tight-binding calculations of magnetic anisotropy phenomena in CoPt
Jan Zemen[1], Jan Masek[2] and Tomas Jungwirth[3], *School of Physics and Astronomy, University of Nottingham, Nottingham NG7 2RD, United Kingdom; [2]Institute of Physics ASCR v.v.i., Na Slovance 2, 182 21 Praha 8, Czech Republic, [3]Institute of Physics ASCR v.v.i., Czech Republic & University of Nottingham, United Kingdom*

SK23 **Spin polarization of half-metallic Heusler alloy Co_2MnSi by Andreev reflection measurements**
Iduru Shigeta[1]*, Yuya Nishisako[1], Kohei Harumori[1], Akinari Okubo[2], Rie Y. Umetsu[3], Masakazu Ito[1], Keiichi Koyama[1], Ryosuke Kainuma[2] and Masahiko Hiroi[1], *[1]Department of Physics and Astronomy, Kaghosima University, Japan; [2]Department of Materials Science, Tohoku University, Japan; [3]Institute for Materials Research, Tohoku University, Japan*

SK24 **Electronic properties of $Co_2Fe_xMn_{1-x}Si$ Heusler alloys studied by hard X-ray photoelectron spectroscopy**
A. Gloskovskii[1], S. Ouardi[1], G. H. Fecher[2], S. Thiess[3], W. Drube[3], B. Detlefs[4], T. Kubota[5], Y. Ando[5] and C. Felser[2], *[1]Johannes Gutenberg University, Mainz, Germany; [2]Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; [3]Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany; [4]ESRF, Grenoble, France; [5]Department of Applied Physics, Graduate School of Engineering, Tohoku University, Japan*

SK25 **Ab-initio calculation of the magnetic properties of bn nanoribbon**
Jeffrey Rufinus, *Science Division, Widener University, USA*

SK26 **Synthesis and functional properties of polycrystalline Fe_3Si-based magnetic tunnel junctions**
Alexander Goikhman[1]*, Galina Kupriyanova[1], Roberto Mantovan[2], Andrei Zenkevich[3] and Ksenia Maksimova[1], *[1]REC 'Functional Nanomaterials', Imanuel Kant Baltic Federal University, Russia; [2]Laboratorio MDM IMM-CNR, Italy; [3]NRNU 'Moscow Engineering Physics Institute', Russia*

SK27 **Half-metallic properties of the (001) surfaces of the half-heusler compounds GeKCa and SnKCa**
Lee-hyun Cho[1], Beata Bialek[1], Jae Il Lee[1]* and Miyoung Kim[2], *[1]Physics, Inha University, Korea; [2]Division of Energy System Research, Ajou University, Korea*

SK28 **Half-metallicity in hydrogenated carbon nanotubes**
Kyu Won Lee, Gi-wan Jeon and Cheol Eui Lee*, *Physics, Korea University, Korea*

SK29 **Enhanced perpendicular magnetic anisotropy in Fe/$(MgAl_2)$OX bilayer structures with interface optimization processes**
J. W Koo[1], S Mitani[2], H Sukegawa[2], Z.C Wen[2], T Niizeki[2], S Kasai[2] and K Inomata[2], *[1]University of Tsukuba, Tsukuba National Institute for Material Science, Japan; [2]National Institute for Materials Science, Tsukuba, Japan*

SK30 **Graphene nano-ribbon and the ripple effect**
Hsin-han Lee, Kuo-chin Chen and Ching-ray Chang*, *Physics, National Taiwan University, Taiwan*

SK31 **Enhancement of spin signal in all-metallic lateral spin valves with half-metallic heusler alloy**
Shinya Kasai, Yukiko Takahashi, Shigeyuki Hirayama, Seiji Mitani and Kazuhiro Hono, *National Institute for Materials Science, Japan*

SK32 **Effect of electron beam rapid thermal annealing on the TMR of CoFeB/MgO/CoFeB magnetic tunnel junctions**
Ganesh K Rajan[1], Shivaraman Ramaswamy[2]*, C Gopalakrishnan[2] and John Thiruvadigal[3], *[1]Nanotechnology Research Center, SRM University, India; [2]SRM University, India; [3]Department of Physics and Nanotechnology, SRM University, India*

SK33 **Preparation of Ti-N films for a capping layer of a CoFeB/MgO-magnetic tunnel junction**
Atsushi Sugihara*, Soichiro Osaki and Ryoichi Nakatani, *Osaka University, Japan*

SK34 **Half-Metallic Molecular Wire on Silicon Surface**
Yunhao Lu[1], Yuan Ping Feng[2]* and Shuo-wang Yang[3], *[1]National University of Singapore, Zhejiang University of China, Singapore; [2]National University of Singapore, Singapore, [3]Institute of High Performance Computing, Singapore*

SL: Magnetic nanostructures and arrays

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: S. Yakata (Kyushu University, Japan)

SL01 **Structural and magnetic studies of sol-gel prepared hexagonal $BaFe_{12}O_{19}$**
Yat Choy Wong[1]*, Geok Bee Teh[2], Sun Yung Kim[1] and James Wang[1], *[1]Faculty of Engineering and Industrial Sciences, Swinburne University of Technology, Australia; [2]Division of Chemistry and Biology, School of Arts and Science, Tunku Abdul Rahman College, Malaysia*

SL02 **Magnetization reversal process in antiferromagnetically coupled (Co/Pd)/Ru/(Co/Pd) multilayer dot pattern**
Shunji Ishio[1]*, Yuta Kobayashi[1], Takashi Hasegawa[1], Akira Arakawa[1], Hiromi Sasaki[1], Zhongjie Yan[2] and Xi Liu[2], *[1]Department of Materials Science and Engineering, Akita University, Japan; [2]Venture Business Laboratory, Akita University, Japan*

SL03 **Magnetic properties of mechanically alloyed Fe-Cu particles**
Osamu Kohmoto, Masakazu Uchida and Yasushi Matsushima, *Okayama University, Japan*

SL04 **Temperature dependence of the coercive force of ferromagnetic TM-Al-O (TM=Fe, Co) granular films**
Shintaro Nakamura[1]*, Akira Yoshihara[2], Shigehiro Ohnuma[3] and Tsutomu Nojima[1], *[1]Institute for Materials Research, Tohoku University, Japan; [2]shinomaki Senshu University, Japan; [3]Research Institute for Electromagnetic Materials, Japan*

SL05 **Microscopic dipole-exchange theory for magnonic crystal arrays of interacting ferromagnetic nanorings**
Jan Borchmann, Hoa Nguyen and Michael Cottam, *Department of Physics and Astronomy, University of Western Ontario, Canada*

SL06 **Synthesis and magnetic properties of zinc ferrite nanocrystals and their applications**
Yang Yang, Xiaoli Liu, Chin Shen Ong and Jun Ding*, *Materials Science and Engineering, National University of Singapore, Singapore*

SL07 **Nanocrystallite size-induced changes in the magnetic and transport properties of $La_{1-x}Ca_xMnO_3$ (x = 1/8, 3/8, 5/8) manganite**
Yugandhar Bitla and S. N. Kaul*, *School of Physics, University of Hyderabad, Central University P.O., Hyderabad - 500 046, India*

SL08 **Magnetic and magneto-optical properties of bilayered Co/Ni anti-dot arrays**
N. G. Deshpande[1], H. Y. Zheng[1], J. S. Hwang[1], S. J. Lee[1], Y. P. Lee[1]*, J. Y. Rhee[2] and K. W. Kim[3], *[1]Physics, Hanyang University, Korea; [2]Physics, Sungkyunkwan University, Korea; [3]Information Display, Sun Moon University, Korea*

SL09 **Diffracted magneto-optical Kerr effect of Co anti-dot structure in different arrangements**
H. Y. Zheng[1], N. G. Deshpande[1], X. R. Jin[1], J. Y. Rhee[2], K. W. Kim[3] and Y. P. Lee[1]*, *[1]Physics, Hanyang University, Korea; [2]Physics, Sungkyunkwan University, Korea; [3]Information Display, Sun Moon University, Korea*

SL10 **Monodisperse magnetic nanoparticles: effects of surfactant concentration on the reaction between $Fe(acac)_3$ and $Pt(acac)_2$**
Komkrich Chokprasombat[1]*, Phimphaka Harding[1], Chitnarong Sirisathitkul[1], Pongsakorn Jantaratana[2], Sujittra Chandarak[3] and Rattikorn Yimnirun[4], *[1]School of Science, Walailak University, Thailand; [2]Department of Physics, Kasetsart University, Thailand; [3]School of Ceramic Engineering, Institute of Engineering, Suranaree University of Technology, Thailand; [4]School of Physics, Institute of Science, Suranaree University of Technology, Thailand*

SL11 **Hollow $MnCO_3$ and $MnSiO_3$ nanospheres**
Zvonko Jaglicic[1], Jin Bae Lee[2], Hae Jin Kim[2] and Janez Dolinsek[3], *[1]Dept. of Physics, Institute of Mathematics, Physics and Mechanics & University of Ljubljana, FGG, Slovenia; [2]Division of Materials Science, Korea Basic Science Institute, Daejeon 305-333, Korea; [3]Condensed Matter Physics, J Stefan Institute, University of Ljubljana, Jamova 39, SI-1000 Ljubljana, Slovenia*

SL12 **Shape-controlled synthesis and magnetic properties of FePt nanocubes**
Mingge Zhou[1]*, Wei Li[2], Minggang Zhu[2], Dong Zhou[2] and Yanglong Hou[3], *[1]Division of Functional Materials, Central Iron and Steel Research Institute, China; [2]Central Iron and Steel Research Institute, China; [3]Department of Advanced Materials and Nanotechnology, College of Engineering, Peking University, China*

SL13 **Magnetic properties of NiO/Ni(OH)2 core-shell nanostructures**
Mangesh B. Mahajan and P. A. Joy*, *Physical and Materials Chemistry, National Chemical Laboratory, Pune, India*

SL14 **Structual and magnetic properties of MFe_2O_4 (M=Ni, Mg) nano hollow spheres**
K. Konishi[1]*, T. Sakurai[1], Y. Nagano[2], N. Manabe[2] and Y. Morimoto[2], *[1]Department og Physics, Graduate School of Science and Engineering, Ehime University, Japan; [2]Department og Physics, Faculty of Science, Ehime University, Japan*

SL15 **Magnetization reversal in patterned arrays of (001)Fe particles**
Maj Hanson[1]*, Rimantas Brucas[2] and Erik Wahlstrom[3], *[1]Department of Applied physics, Chalmers university of technology, Sweden; [2]Department of Engineering Science, Solid State Physics, Uppsala University, Sweden; [3]Institutt for fysikk, NTNU, Norway*

SL16 **Controllable structure and magnetic properties of cobalt nanowires by tuning deposition voltage**
Xiu Xiu Fan[1], Hai Ning Hu[2] and Zhong Shi[3]*, *[1]Surface Physics State Laboratory and Department of Physics, Fudan University, China; [2]School of Mathematics and Physics, Shanghai University of Electric Power, China; [3]Department of Physics, Tongji University, China*

SL17 **Magnetotransmission effect in $Nd_{0.5}Sr_{0.5}MnO_3$ nano-composites**
Elena Mostovshchikova, Natalya Loshkareva, Andrey Telegin*, Nikolay Solin, Sergey Naumov and Sergey Telegin, *Institute of Metal Physics UD of RAS, Russia*

SL18 **Influence of asymmetric permalloy ring on magnetization configuration and switching behavior**
Chao-hsien Huang[1]*, Lance Horng[1], Nian-jia Cheng[2], Tian-chiuan Wu[3] and Jong-ching Wu[1], *[1]Department of Physics, National Changhua University of Education, Taiwan; [2]Institute of photonics, National Changhua University of Education, Taiwan; [3]Department of Electronic Engineering, National Formosa University, Taiwan*

SL19 **Fabrication of high aspect ratio nanoscale magnetic tunnel junction etch mask by oxygen plasma assisted resist trimming**
Bongho Kim[1], Daehong Kim[1], Sungwoo Chun[1], Hyungyu Lee[1], Seonjun Choi[1] and Seung-beck Lee[2]*, *[1]Department of Electronic Engineering, Hanyang University, Seoul, Korea; [2]Department of Nanoscale Semiconductor Engineering, Hanyang University, Seoul, Korea*

SL20 **Magnetic properties of iron(III) oxide nanostructures by hydrothermal synthesis**
Raquel A Ribeiro*, Allan M Xavier and Flavio L Souza, *Centro de Ciencias Naturais e Humanas, Universidade Federal do ABC - UFABC, Brazil*

SL21 **Magnetic dot-antidot lattice for control of magnetic anisotropy**
Sadashivaiah Sakshath*, Kalappattil Vijaysankar, Karki S Bhagyashree, Subray V Bhat and P. S. Anil Kumar, *Department of Physics, Indian Institute of Science, Bangalore, India*

SL22 **Effect of diameter of the wires on magnetic properties of electrodeposited CoNiP hard magnetic nanowires**
Tuan Tu Le[1]*, Pham Hong Quang[1], Luu Van Thiem[2], T.S. Ramulu[3] and Cheolgi Kim[3], *[1]Faculty of physics, University of Science, Vietnam National University, 334 Nguyen Trai, Thanh Xuan, Hanoi, Vietnam; [2]Faculty of Engineering Physics and Nanotechnology, College of Technology, Vietnam National University,144 Xuan Thuy, Caugiay, Hanoi, Vietnam; [3]Deparment of Materials Science and Engineering, Chungnam National University, Daejeon 305-764, Korea*

SL23 **Switching behavior of lithographically defined grid of permalloy nanowires studied with magnetoresistance**
Venkateswarlu Dasari, Vineeth Mohanan Parakkat and Anil P. S. Kumar, *Physics, Indian Institute of Science, India*

SL24 **Magnetization reversal modes in narrow FePt nanowires with high perpendicular anisotropy**
Van Dai Nguyen[1], Laurent Vila[1], Matthieu Tissier[2], Alain Marty[1], Murat Cubukcu[1], Piotr Laczkowski[1], Williams Savero-torres[1], Juan-carlos Rojas Sanchez[1] and Jean-philippe Attane[1], *[1]Universite Joseph Fourier, BP 53, 38041, Grenoble and INAC/ CEA Grenoble, France; [2]LPTMC, CNRS-UMR 7600, Universite Pierre et Marie Curie, boite 121, 4 Pl. Jussieu, 75252 Paris Cedex, France*

SL25 **Structural and magnetic behaviour of nanocrystalline $CaFe_2O_4$**
S. N. Dolia*, Arvind Samariya, Arun S. Prasad, P. K. Sharma, M. S. Dhawan and S. P. Pareek, *Department of Physics, University of Rajasthan, Jaipur, India*

SL26 **Magnetoresistance of helimagnetic ordering in single crystal FeGe nanowires**
Tae-eon Park[1], Byoung-chul Min[1], Dong-jea Seo[2], Younho Park[1], Heon-jin Choi[2] and Joonyeon Chang[1]*, *[1]Spin Device Research Center, KIST, Korea; [2]Deparment of Materials Science and Engineering, Yonsei University, Korea*

SL27 **Arrays of interacting ferromagnetic nanofilaments: small-angle neutron diffraction study**
Natalia Grigoryeva[1]*, Sergey Grigoriev[2], Arseniy Syromyatnikov[2], Andrey Chumakov[2], Helmut Eckerlebe[3], Kirill Napolskiy[4], Ilya Roslyakov[4] and Andrey Eliseev[4], *[1]Faculty of Physics, Saint Petersburg State University, Russia; [2] Konstantinov Petersburg Nuclear Physics Institute, Russia; [3]Helmholtz Zentrum Geesthacht, Germany; [4]Moscow State University, Russia*

SL28 **Magnetic properties of nanometer scale FeCr antidot array system**
Shivaraman Ramaswamy and Geo George Philip, *Nanotechnology Research Center, SRM University, India*

SL29 **Fabrication of Al-Ni core-shell structured particles via electroless ni plating**
Youn-kyoung Baek*, Jung-goo Lee, Sangsun Yang and Chul-jin Choi, *Powder & Ceramic Research Division, Korea Institute of Materials Science, Korea*

SM: Magnetic thin films and others

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairperson: K. Mibu (Nagoya Institute of Technology, Japan)

SM01 **Breakdown of barkhausen critical scaling behavior with increasing domain wall pinning in fe thin films**
Hun-sung Lee[1], Kwang-su Ryu[2], Chun-yeol You[3], Kun-rok Jeon[1], Stuart S. P. Parkin[2] and Sung-chul Shin[1]*, *[1]Korea Advanced Institute of Science and Technology (KAIST), Daejeon 305-701, Korea; [2]IBM Research Division, Almaden Research Center, San Jose, CA 95120, USA; [3]Department of Physics, Inha University, Incheon 402-751, Korea*

SM02 **Enhanced critical fields in MnSi thin films**
Dirk Menzel*, Josefin Engelke, Tommy Reimann and Stefan Suellow, *Institute for Condensed Matter Physics, Technische Universitaet Braunschweig, Germany*

SM03 **Magnetism and Cr_2O_3-Fe_2O_3 structure of CoFe/Cr-NOL surface**
Naoki Shimomura[1]*, Kazuya Sawada[2], Tomohiro Nozaki[1], Masaaki Doi[3] and Masashi Sahashi[1], *[1]Department of Electronic Engineering, Graduate School of Engineering, Tohoku University, Japan; [2]Toshiba Corporation, Japan; [3]Tohoku Gakuin University, Japan*

SM04 **Magnetic phase diagram for non-epitaxial Cr/Gd/Cr-multilayers**
Andres Rosales Rivera[1]*, Juan Fernando Jaramillo[1], Nicolas Antonio Salazar[1], Olatz Idigoras[2] and Andreas Berger[2], *[1]Laboratorio de Magnetismo y Materiales Avanzados, Universidad Nacional de Colombia, Sede Manizales, Colombia; [2]CIC nanoGUNE Consolider, Tolosa Hiribidea 76, E-20018 Donostia-San Sebastian, Spain*

SM05 Revealing the volume magnetic anisotropy of Fe films epitaxied on GaAs(001) surface
G. Chen[1], J. Zhu[1], J. Li[2] and Yizheng Wu[3], *[1]Physics Department, Fudan University, China; [2]Physics Department, Fudan University, China; [3]Phyiscs Department, Fudan university, China*

SM06 Structures and magnetic properties of ultrathin Ni/Cu(100) in hydrochloric acid
Jyh-shen Tsay*, Chun-liang Lin, An-wei Wu, Ying-chieh Wang and Yu-chieh Tseng, *National Taiwan Normal University, Taiwan*

SM07 Improvement in structural and magnetic properties of laser ablated Ni-Zn Ferrite thin films
Raghavender A T[1]*, Nguyen Hoa Hong[1], Ekaterina Chikoidze[2], Yves Dumont[2] and Kurisu Makio[3], *[1]Department of Physics and Astronomy, Seoul National University, Korea; [2]Laboratoire GeMAC, Universite de Versailles, France; [3]Department of Physics, Ehime University, Japan*

SM08 A basic study of magnetic anisotropy strength control using FeSiB magnetostrictive thin film
Jaewon Shin*, Sung Hoon Kim, Genki Kitazawa, Shuichiro Hashi and Kazushi Ishiyama, *Research Institute of Electrical Communication, Tohoku University, Japan*

SM09 Magnetic properties of co thin films on polyethylene naphthalate organic substrates
Hideo Kaiju*, Taro Abe, Kenji Kondo and Akira Ishibashi, *Research Institute for Electronic Science, Hokkaido Univerisity, Japan*

SM10 Effects of dimensionality on magnetization of Ho and Sm-doped $BiFeO_3$ thin films
Tae-young Kim[1]*, Anupati Telugu Raghavender[2], Sugawara Takashi[3], Makio Kurisu[3] and Nguyen Hoa Hong[4], *[1]Physics, Seoul National University, Korea; [2]Physics, Seoul National University, India; [3]Physics, Ehime university, Japan; [4]Physics, Seoul National University, France*

SM11 Substrate-dependent electronic anisotropy of epitaxial multiferroic $DyMnO_3$ and $Dy_{0.8}Ca_{0.2}MnO_3$thin films
Kueih-tzu Lu, S. C. Haw, T. L. Chou, J. M. Lee, S. A. Chen and J. M. Chen, *National Synchrotron Radiation Research Center, Taiwan*

SM12 Enhanced magnetization by substitution of Zn^{2+} in Fe_3O_4 films
Chang-yup Park[1], Jong-hyun Song[2], Chun-yeol You[3] and Sung-chul Shin[4]*, *[1]Department of Physics and Center for Nanospinics of Spintronic Materials, Korea Advanced Institute of Science and Technology, Daejeon 305-701, Korea; [2]Department of Physics, Chungnam National University, Daejeon 305-764, Korea; [3]Department of Physics, Inha University, Incheon 402-751, Korea; [2]Department of Physics and Center for Nanospinics of Spintronic Materials, KAIST, Daejeon, Department of Emerging Materials Science, DGIST, Daegu, Korea*

SM13 Growth temperature dependence of crystal orientation and magnetic properties of $CoMn_2O_4$ thin films
Taeyoung Koo[1], Jaeyoung Kim[1], Sunhee Kang[2], Illwon Kim[2], Yoonhee Jeong[3], Myunghwa Jung[4] and Jonghyun Song[5]*, *[1] Pohang Accelerator Laboratory, Korea; [2]Physics, Ulsan University, Korea; [3]Physics, Pohang University of Science and Technology, Korea; [4]Physics, Sogang University, Korea; [5]Physics, Chungnam National University, Korea*

SM14 Structure and magnetic properties of Fe_3O_4 thin films on different substrates by Pulsed Laser Deposition
Xuelian Huang, Yang Yang and Jun Ding*, *Materials Science and Engineering, National University of Singapore, Singapore*

SM15 Influence of crystallographic orientation on the magnetic properties of NiFe, Ni, and Co epitaxial fcc films grown on single-crystal substrates
Taiki Ohtani*, Tetsuroh Kawai, Mitsuru Ohtake and Masaaki Futamoto, *Chuo Univercity, Japan*

SM16 Magnetic coupling in manganite-based thin film heterostructures studied by Electron Holography
Luis Alfredo Rodriguez[1], Lorena Marin[2], Cesar Magen[3]*, Irene Lucas[4], Pedro Antonio Algarabel[4], Luis Morellon[2], Jose Maria De Teresa[4] and Manuel Ricardo Ibarra[1], *[1]LMA-INA, Universidad de Zaragoza, 50018, Zaragoza, Spain; [2]INA, Universidad de Zaragoza, 50018, Zaragoza, Spain; [3]LMA-INA and ARAID, Universidad de Zaragoza, 50018, Zaragoza, Spain, [4]ICMA, Universidad de Zaragoza-CSIC, 50009, Zaragoza, Spain*

SM17 Properties of hybrid superconductor/ferromagnet (SC/FM) multilayers
U. D. Chacon Hernandez[1], Y. T. Xing[2], William E. Alayo[1], Magda B. Fontes[1], Jorge L. Gonzalez[3], Liying Liu[4], G. Solorzano[4] and E. Baggio-saitovitch[1], *[1]Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil, Brazil; [2]Universidade Federal Fluminense Niteroi, Brazil, Brazil; [3]Universidade Federal do Espirito Santo, Vitoria, Brazil, BrazilL [4]PUC-Rio de Janeiro, Brazil*

SM18 Effect of substrate on the anisotropic magnetotransport in $Sm_{0.45}Nd_{0.10}Sr_{0.45}MnO_3$ thin films
Pawan Kumar[1], M. K. Srivastava[1], G. D. Verma[2], R. K. Dwivedi[3] and H. K Singh[1], *[1]Quantum Phenomena and Applications, National Physical Laboratory (CSIR), India; [2]Department of Physics, IIT Roorkee, India; [3]Department of Physics & Materials Science and Engineering, Jaypee Institute of Information Technology (Deemed University), India*

SM19 Magnetism of multilayer (CoNiPsoft/CoPhard)n films
Gennady Patrin[1], Marina Pal'chik[2], Dmitry Balaev[2], Semion Kiparisov[2] and Konstantin Patrin[2], *[1]Siberian Federal University, Russia; [2]Institute of Physics of Siberian Branch of Russian Academy of Sciences, Russia*

SM20 Significant change in the antiferromagnetic-to-ferromagnetic phase transition temperature of epitaxial FeRh thin films by Ga substitution
Ippei Suzuki[1]*, Mitsuru Itoh[1], Tetsuya Sato[2] and Tomoyasu Taniyama[1], *[1]Materials and Structures Laboratory, Tokyo Institute of Technology, Japan; [2]Department of Applied Physics and Physico-Informatics, Keio University, Japan*

SN: Hard magnetic materials II

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)

Chairperson: Ji-Hun Yu (KIMS, Korea)

SN01 Structural and magnetic properties of Sm_2Co_{17} nanoflakes prepared by surfactant-assisted ball milling
Ming Yue, Rui Pan, Xiaofei Yin, Dongtao Zhang, Weiqiang Liu and Jiuxing Zhang, *College of Materials Science and Engineering, Beijing University of Technology, China*

SN02 Rotor structure optimization of interior permanent magnet by using response surface method
Jung-ho Han, Ik-sang Jang, Mi-jung Kim, Ki-doek Lee and Ju Lee*, *Electrical Engineering, Hanyang University, Korea*

SN03 Magnetization reversal behavior of FePt/MgO/FePt thin film
Hiroki Iwama, Shinji Matsumoto, Katsuya Sugawara, Kotaro Sato, Masaaki Doi and Toshiyuki Shima, *Tohoku Gakuin University, Japan*

SN04 Efficiency and torque density improvement of interor permanant magnet synchronous motor
Mi Jung Kim, Ki Doek Lee, Jae-jun Lee, Jeong-ho Han, Tae-chul Jeong, Woong-chan Chae and Ju Lee*, *Hanyang University, Korea*

SN05 An effective skew method for torque ripple reduction in surface-mounted permanent magnet motor
Taewoo Kim and Junghwan Chang*, *Electrical Engineering, Dong-A University, Busan, 604-714, Korea*

SN06 Effect of carbon additive on the $TbCu_7$-type melt spun Sm(Co, M)7 (M=Ti, Zr, Hf, V, Nb and Ge) ribbons
C.C. Hsieh[1], H.W. Chang[2], C.W. Shih[1], W.C. Chang[1]* and C.C. Shaw[3], *[1]National Chung Cheng University, Taiwan; [2]Tunghai University, Taiwan; [3]Superrite Electronics Co. Ltd, Taiwan*

SN07 Study of designed induction motor on cryogenic LNG pump system
Jinsung Kim and Gwansoo Park*, *Pusan National University, Korea*

SN08 Structural and magnetic properties of nanocrystalline $BaFe_{12}O_{19}$ synthesized by microwave-hydrothermal method
K Sadhana and K Praveena, *Materials Research Centre, Indian Institute of Science, Banglore-560012, India*

SN09 Research magnetic properties of Fe-O alloys with different texture degrees and ratios of phases using simulating
Alexey Lileev*, Ivan Pelevin and Anna Starikova, *National University of Science and Technology 'MISIS', Russia*

SN10 Study on FePt/Fe exchange coupling nanocomposite thin films
Wenli Pei, *ATM, Northeastern University, China*

SN11 Effects of Sm content on thermal stability of sintered $Sm2Co_{17}$ magnets
Minggang Zhu, Haibo Feng, Wei Li, Yikun Fang, Wenchen Zhang and Wei Pan, *China Iron & Steel Research Institute Group, China*

SN12 Simulation of die-upsetting process of hot-deformed magnets
Bin Lai*, Huijie Wang, Minggang Zhu and Wei Li, *Division of Functional Materials, Central Iron & Steel Research Institute, China*

SN13 Synthesis of high magnetic moment nanowires for encoding and decoding of barcode segments for multiplexing bio- applications
Torati Sri Ramulu[1], Reddy Venu[1], Brajalal Sinha[1], Xinghao Hu[1], Sook Soo Yoon[2] and Cheol Gi Kim[1]*, *[1]Material science and engineering, Chungnam national university, Korea; [2]Material science and engineering, Andong national university, Korea*

SN14 A new mechanism of electromagnetic linear-actuator using a magnetic silicone rubber
Takanori Fukushi, Sung Hoon Kim*, Shuichiro Hashi and Kazushi Ishiyama, *Research Institute of Electrical Communication, Tohoku University, Japan*

SN15 Novel microcrystalline Co-Zr-B RE-free hard magnetic alloys
Sofoklis Makridis and Evagelos Gkanas, *Department of Mechanical Engineering, University of Western Macedonia, Greece*

SO: Novel magnetic materials and devices I

July 13 (Fri), 13:30~15:30, Exhibition Hall 1 (1F)
Chairpersons: Asaya Fujita (Tohoku University, Japan)
Sunglae Cho (University of Ulsan, Korea)

SO01 First-principles study on the half-metallicity of full-Heusler alloy Co_2VGa (111) surface
Hongpei Hong, Kailun Yao* and Guoying Gao, *physics, Huazhong university of science and technology, China*

SO02 Magnetic and resonance properties of $Bi_{24}(CoBi)O_{40}$
Sergey Stepanovich Aplesnin[1], Maksim Nicolaevich Sitnikov[1], Lubov Victorovna Udod[2] and Dmitrii Anotol'evich Velicanov[2], *[1]M.F. Reshetnev Siberian State Aerospace University, Russia; [2]L.V. Kirensky Institute of Physics, Russia*

SO03 Field induced phase transitions and magnetocaloric properties in $Er_{1-x}Lu_xFe_2O_4$ compound
Peng Zhang[1], Ying-de Zhang[1], Young-yeal Song[1], Jae-yeong Kim[2], Bo-wha Lee[2] and Seong-cho Yu[1]*, *[1]Physics, Chungbuk National University, Korea; [2]Physics, Hankuk University of Foreign Studies, Korea*

SO04 Magnetic properties of heusler-type Ni-Mn-Ga glass-coated microwires
Valeria Rodionova[1], Maxim Ilyn[2], Valentina Zhukova[2]*, Alexander Granovsky[3], Alexander Aronin[4], Galina Abrosimova[4] and Arcady Zhukov[5], *[1]Dpto. de Fisica de Materiales and Faculty of Physics, UPV/EHU San Sebastian, Lomonosov Moscow State University and Immanuel Kant Baltic Federal University, Russia; [2]Dpto. de Fisica de Materiales, UPV/EHU, Spain; [3]Dpto. de Fisica de Materiales and Faculty of Physics, UPV/EHU, San Sebastian, Spain and Lomonosov Moscow State University, Moscow, Russia; [4]Insitute of solid State Physics, RAS, Chernogolovka, 142432, Moscow Region, Russia; [5]Dpto. de Fis. Mater., UPV/EHU San Sebastian and IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*

SO05 Compensated magnetism in double perovskites A_2CrFeO_6 (A=La,Sr)
Kyo-hoon Ahn[1] and Kwan-woo Lee[2]*, *[1]Department of Applied Physics, Graduate School, Korea University, Sejong, Korea; [2]Department of Display and Semiconductor Physics, Korea University, Sejong, Korea*

SO06 Possible half-metal antiferromangetism in double perovskites A_2VMnO_6 (A=La,Sr)
Myung-chul Jung[1], Young-joon Song[1] and Kwan-woo Lee[2]*, *[1]Department of Applied Physics, Graduate School, Korea University, Sejong, Korea; [2]Department of Display and Semiconductor Physics, Korea University, Sejong, Korea*

SO07 Focused magneto-optic kerr effect spectroscopy in $Ni_{75}Fe_{25}$ and Fe ferromagnetic thin films on organic substrates
Kenji Kondo*, Hideo Kaiju and Akira Ishibashi, *Laboratory of Quantum Electronics, Research Institute for Electronic Science, Japan*

SO08 The structural and magnetic properties of the magneto-caloric compounds $Mn_{0.66}Fe_{1.29}P_{1-x}Si_x$ (x = 0.34, 0.37 and 0.42)
Zhiqiang Ou[1]*, L. Zhang[1], N.h. Dung[1], L. Van Eijck[2], M. Avdeev[3], A.m. Mulders[4] and E. Bruck[1], *[1]FAME Section, R3, Faculty of Applied Sciences, Delft University of Technology, Netherlands; [2]NPM2 Section, R3, Faculty of Applied Sciences, Delft University of Technology, Netherlands; [3]Australian Nuclear Science and Technology Organisation,Locked Bag 2001, Kirrawee DC NSW 2232, Australia; [4]School of Physical, Environmental and Mathematical Sciences, UNSW in Canberra, ACT 2610, Australia*

SO09 Faraday rotation characteristics in wide-gap magnetic semiconductor ZnMnTe and ZnMnSe films
Masaaki Imamura*, *Electrical Engineering, Fukuoka Institute of Technology, Japan*

SO10 Magnetism and multiplets in Fe-phthalocyanine molecules
Yukie Kitaoka[1]*, Kohji Nakamura[1], Toru Akiyama[1], Tomonori Ito[1], Michael Weinert[2] and Arthur J. Freeman[3], *[1]Mie University, Japan; [2]University of Wisconsin-Milwaukee, USA; [3]Northwestern University, USA*

SO11 Elastic anisotropy in ferromagnetic shape memory alloy of non-stoichiometric $Ni_2MnGa_{1-x}In_x$
Fumiya Kitanishi*, Kohji Nakamura, Toru Akiyama and Tomonori Ito, *Mie University, Japan*

SO12 Structure and properties of double perovskite system $La_2Co_{1-x}Fe_xMnO_6$ (x=0, 0.1, 0.2, 0.3)
The-tan Pham, Huyen-yen Pham and Nam-nhat Hoang*, *Faculty of Technical Physics and Nanotechnology, Vietnam National University, University of Engineering and Technology, Viet Nam*

SO13 Density-functional study on spin-crossover in several Fe-based molecules
Tuan Anh Nguyen* and Thanh Van Nguyen, *Faculty of Physics, Hanoi University of Science, Viet Nam*

SO14 Magnetic properties of $Cu_{70.9}Al_{18.1}Mn_{11}$ ferromagnetic shape memory alloy
S Chatterjee[1], S Giri[2] and S Majumdar[2]*, *[1]UGC-DAE Consortium for Scientific Research, Kolkata Centre, India; [2]Department of Solid State Physics, Indian Association for the Cultivation of Science, India*

SO15 Magnetic properties of dioxygen molecules confined in single-walled carbon nanotubes
Yusuke Nakai[1]*, Shin Tadera[1], Haruka Kyakuno[1], Keitaro Harada[1], Kazuyuki Matsuda[2], Kazuhiro Yanagi[1] and Yutaka Maniwa[1], *[1]Department of Physics, Graduate School of Science, Tokyo Metropolitan University, Japan; [2]Faculty of Engineering, Kanagawa University, Japan*

SO16 Magneto-elastic coupling and magnetocaloric effect in Fe_2P-based Mn-Fe-P-Si compounds
N. H. Dung[1]*, L. Zhang[2], Z. Q. Ou[1] and E. Bruck[1], *[1]Delft University of Technology, Netherlands, [2]BASF Netherlands B.V & Delft University of Technology, Netherlands*

SO17 Magnetorefractive effect in manganites
Andrey Telegin*, Yurii Sukhorukov and Vladimir Bessonov, *Institute of Metal Physics UD of RAS, Russia*

SO18 **Electroresistance and joule heating effects in manganite thin films**
Luis Pena, Regina Galceran, Zorica Konstantinovic, Alberto Pomar, Bernat Bozzo, Lluis Balcells, Felip Sandiumenge and Benjamin Martinez*, *Magnetic Materials and Functional Oxides, ICMAB - CSIC, Spain*

SO19 **Magnetocaloric effect and other properties of cold rolled Gd ribbons**
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SO20 **Fabrication and properties of double perovskite $SrLaVRuO_6$**
Ryosuke Zenzai*, Tetsuya Miyawaki, Kenji Ueda and Hidefumi Asano, *Crystalline Materials Science, Nagoya University, Japan*

SO21 **Giant magnetoresistive effect in non-magnetic silicon**
Tae Ho Lee[1], Hong-seok Kim[1], Woo Lee[2] and Yong-joo Doh[1]*, *[1]Dept. of Display and Semiconductor Physics, Korea University Sejong Campus, Korea; [2]Korea Research Institute of Standards and Science, Korea*

SO22 **Effect of Fe substitution on Ni-Mn-In shape memory alloys: Magnetic and magneto-structural properties**
Radha S[1], Ashwin Mohan[2] and A. K. Nigam[2]*, *[1]Department of Physics, University of Mumbai, India; [2]Department of Condensed Matter Physics and Materials Science, Tata Institute of Fundamental Research, India*

SO23 **Magnetic properties and magnetocaloric effect in shape memory alloys Ni-Mn-Ga**
Rafael Fayzullin, Vasiliy Buchelnikov, Sergey Taskaev and Mikhail Drobosyuk, *Chelyabinsk State University, Russia*

SO24 **Magnetic susceptibility avalanches in thermally-induced first-order phase transition of $La(Fe_{0.88}Si_{0.12})_{13}$ magnetocaloric compound**
Asaya Fujita* and Hitomi Yako, *Department of Materials Science, Tohoku University, Japan*

SO25 **Phase coexistence and magnetocaloric effect on martensitic transition in Ni-Co-Mn-Sn metamagnetic shape memory alloy**
Bo Gao[1]*, Wen Guan[1], Yu Wang[1], Sen Yang[1], Xiaoping Song[1], Fengxia Hu[2], Jirong Sun[2] and Baogen Shen[2], *[1]MOE Key Laboratory for Nonequilibrium Synthesis and Modulation of Condensed Matter, Xi'an Jiaotong University, China; [2]State Key Laboratory of Magnetism, Institute of Physics, Chinese Academy of Sciences, China*

SO26 **Balance between the growth rate of ferromagnetic phase and demagnetizing fields in itinerant electron metamagnetic transition of $La(Fe_{0.88}Si_{0.12})_{13}$**
Hitomi Yako* and Asaya Fujita, *Tohoku University, Japan*

SO27 **Temperature dependent structural and magnetic properties of Ni-Mn-In Heusler alloy glass-coated microwires**
Valeria Rodionova[1]*, Mikhail Ipatov[2], Maxim Ilyn[3], Valentina Zhukova[4], Alexander Granovsky[5] and Arcady Zhukov[6], *[1]I. Kant Baltic Federal University, UPV/EHU, Lomonosov Moscow State University, Russia; [2]UPV/EHU, Spain; [3]Centro de Fisica de Materiales, CSIC/UPV, Spain; [4]Dpto. Fisica de Materiales, Fac. Quimicas, UPV/EHU, Spain; [5]Lomonosov Moscow State University, IKERBASQUE, Basque Foundation for Science, Russia; [6]Dpto. Fisica de Materiales, Fac. Quimicas, UPV/EHU, IKERBASQUE, Basque Foundation for Science, Spain*

SO28 **Magnetooptical Kerr effect enhancement in Co/TiO_2 layered films**
Victor Polyakov[1], Konstantin Patrin[1], Klaudia Polyakova[1]*, Vitaly Seredkin[1] and Gennady Patrin[2], *[1]L.V. Kirensky Institute of Physics, SB RAS, Russia; [2]Siberian Federal University, Russia*

SO29 **Electronic structure calculations and the magnetic properties of Ru_2FeZ (Z = Al and Ga)**
Ramesh Kumar K and Thamizhavel A*, *Department of Condensed Matter Physics and Materials Science, Tata Institute of Fundamental Research Mumbai 400005, India*

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Joao S Amaral*, Soma Das and Vitor S Amaral, *CICECO and Dept. of Physics, Universidade de Aveiro, Portugal*

SO31 **On the Curie temperature dependency of the Magnetocaloric effect**
Joao H Belo[1], Joao S Amaral[2]*, Andre M Pereira[1], Soma Das[2], Vitor S Amaral[2] and Joao P Araujo[1], *[1]IFIMUP and IN, Dept. de Fisica e Astronomia, FCUP, 4169-007 Porto, Portugal; [2]CICECO and Dept. of Physics, Universidade de Aveiro, Portugal*

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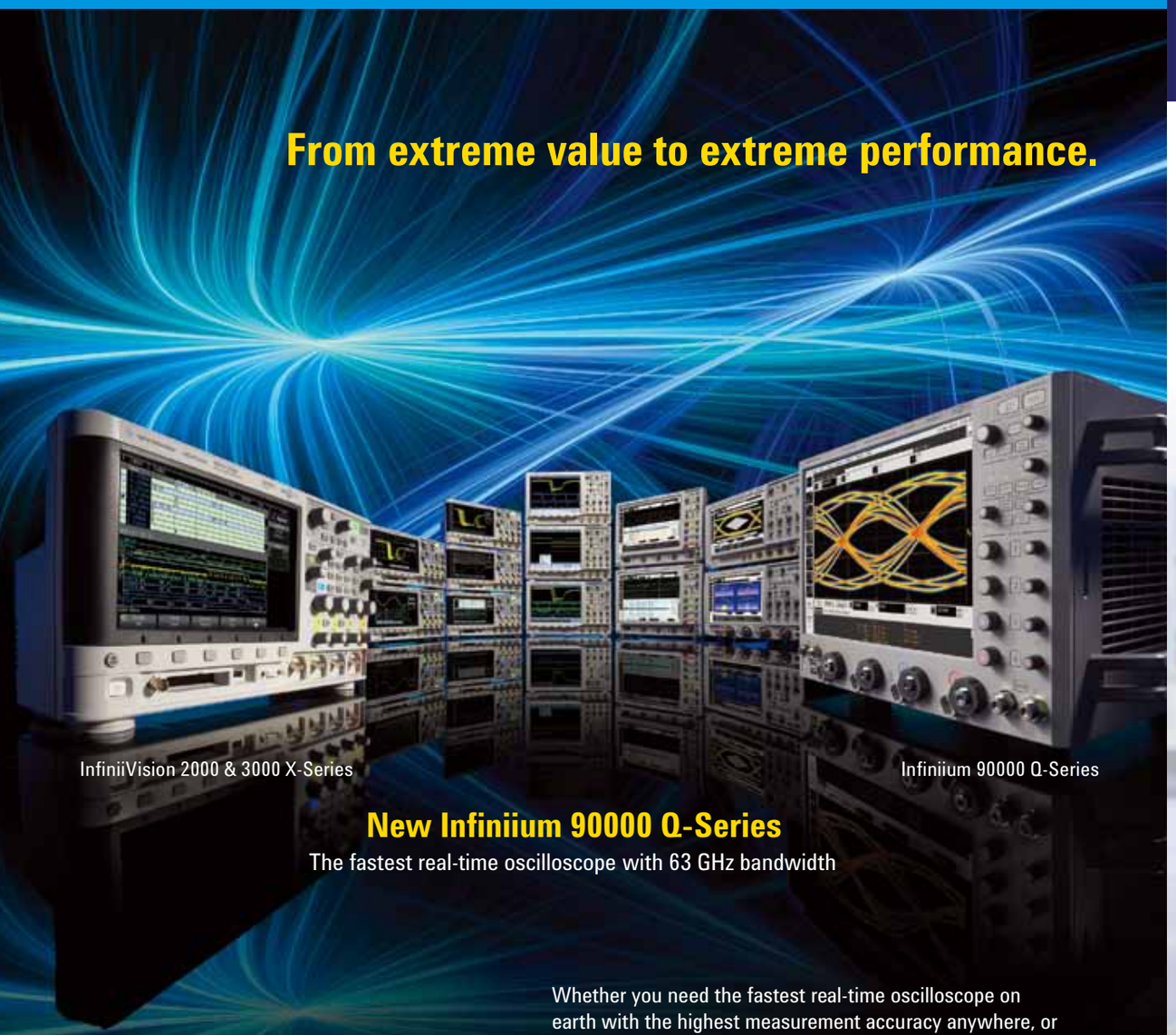

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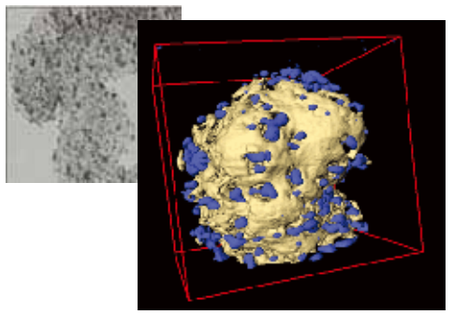

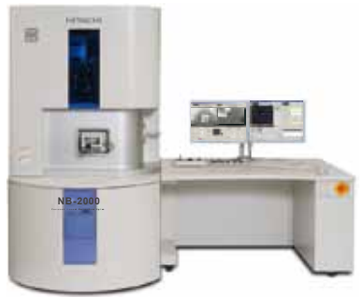

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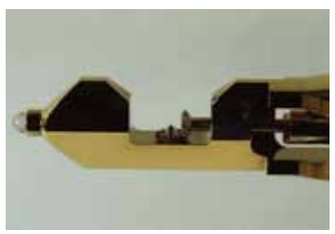

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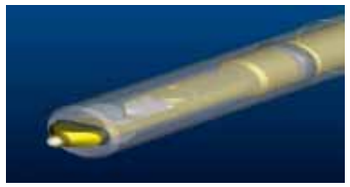

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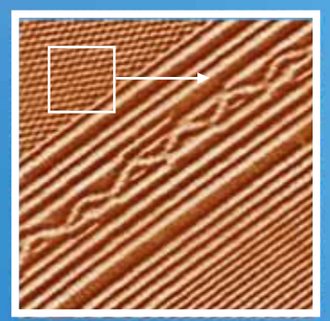
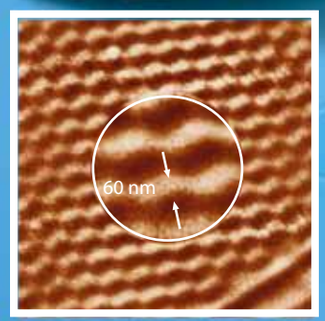
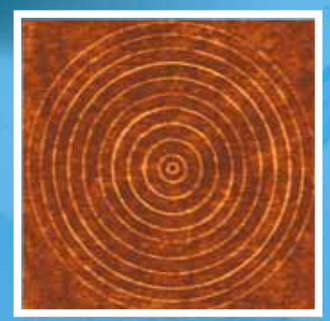


HDD topography (a) and MFM image (b). Scan size 5x5 µm



HDD MFM image. Scan size 1.5x1.5 µm



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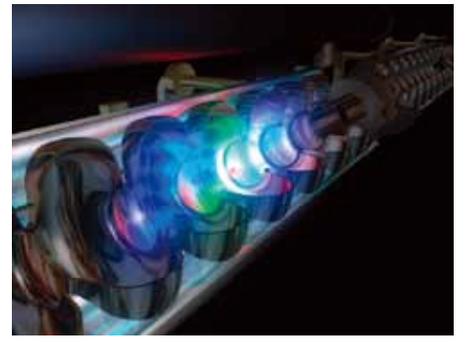

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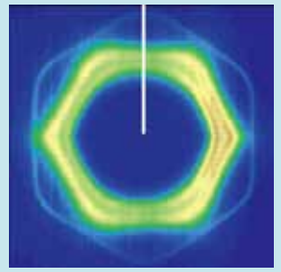

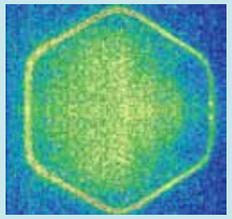

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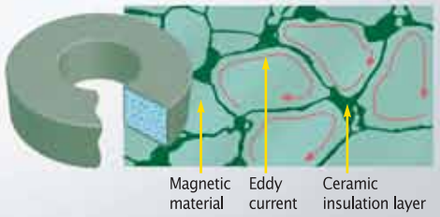

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