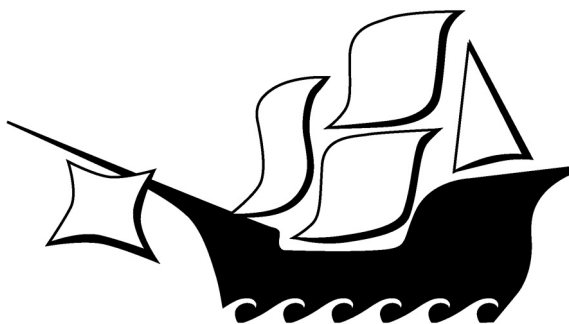


Intermag 2003

**Program of the 2003 IEEE
International Magnetics Conference**

**March 30 – April 3, 2003
Boston, Massachusetts, USA**



INTERMAG 2003

www.intermagconference.com

**Sponsored by the Magnetics Society of the
Institute of Electrical and Electronics Engineers**

CONFERENCE PROGRAM AT A GLANCE

SUNDAY EVENING

4:00 PM – 8:00 PM

Registration Desks Open *4th Floor Atrium Area*

MONDAY MORNING

7:00 AM – 2:00 PM

Registration Desks Open *4th Floor Atrium Area*

9:00 AM

- | | | |
|-----------|----------------------------------------------------|--------------------|
| AA | Thin Films: Domains and Magnetization Processes | <i>Salon B/C/D</i> |
| AB | Head/Media Interface I | <i>Salon H/I/J</i> |
| AC | Symposium: Spintronics: Progress and Developments | <i>Salon E</i> |
| AD | Nanocrystalline/Amorphous Materials I and Modeling | <i>Salon F</i> |
| AE | Perpendicular Media I | <i>Salon G</i> |

MONDAY AFTERNOON

2:00 PM

- | | | |
|-----------|-----------------|------------------|
| BZ | Plenary Session | <i>Salon E/F</i> |
|-----------|-----------------|------------------|

TUESDAY MORNING

8:30 AM – 2:30 PM

Registration Desks Open *4th Floor Atrium Area*

9:00 AM

- | | | |
|-----------|-------------------------------------------------------------------------|--------------------|
| CA | Micromagnetics | <i>Salon B/C/D</i> |
| CB | Giant Magneto-Impedance and High Frequency Applications | <i>Salon H/I/J</i> |
| CC | Symposium: Nanoprocessing Applications for Magnetic Information Storage | <i>Salon E</i> |
| CD | Spin Injection in Metals and Semiconductors | <i>Salon F</i> |
| CE | Inductive Recording Heads | <i>Salon G</i> |

8:00 AM – 12 Noon

Exhibit Hall

- | | |
|-----------|-----------------------------------------------|
| CP | Transformers, Motors and Related Applications |
| CQ | Magnetic Sensors I |
| CR | Levitation, Propulsion and Shielding |
| CS | Permanent Magnet Materials |
| CT | Magnetic Semiconductors |

TUESDAY AFTERNOON

12 Noon – 5:00 PM

Partner Pavilion Open *Exhibit Hall*

2:00 PM

- | | | |
|-----------|-------------------------------------------|--------------------|
| DA | Magnetoelasticity and Shape Memory Alloys | <i>Salon B/C/D</i> |
|-----------|-------------------------------------------|--------------------|

DB	Sm-Co and Other Permanent Magnet Compounds	<i>Salon H/I/J</i>
DC	Symposium: Nanostructures: Characterization Techniques and Insights	<i>Salon E</i>
DD	GMR Heads	<i>Salon F</i>
DE	Perpendicular Media II	<i>Salon G</i>

1:00 PM – 5:00 PM *Exhibit Hall*

DP	Micromagnetic and Hysteresis Modeling
DQ	Magnetic Read Heads
DR	Perpendicular Media III
DS	Particulate Media & ME Tape
DT	Channels, Coding and Servo

TUESDAY EVENING

6:00 PM – 10:00 PM

Conference Social Event	<i>New England Aquarium</i>
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WEDNESDAY MORNING

8:30 AM – 2:30 PM

Registration Desks Open	<i>4th Floor Atrium Area</i>
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9:00 AM

EA	Transformers, Inductors and Other Devices	<i>Salon B/C/D</i>
EB	NdFeB Permanent Magnets	<i>Salon H/I/J</i>
EC	Symposium: Application of Magnetism in the Life Sciences	<i>Salon E</i>
ED	MRAM	<i>Salon F</i>
EE	Longitudinal Media	<i>Salon G</i>

8:00 AM – 12 Noon

Exhibit Hall

EP	Magnetic Characterization
EQ	Magnetic Fluids I
ER	Power and Magnetic Device Control I
ES	High Polarization Materials and Magnetic Tunnel Junctions I
ET	Magnetic Thin Films and Nanostructures
EU	Ferrites I

WEDNESDAY AFTERNOON

12 Noon – 5:00 PM

Partner Pavilion Open	<i>Exhibit Hall</i>
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2:00 PM

FA	Magnetic and Structural Characterization	<i>Salon B/C/D</i>
FB	Permanent Magnet Processing and Applications	<i>Salon H/I/J</i>
FC	Symposium: RF Soft Magnetic Films and Planar Inductive Devices	<i>Salon E</i>
FD	Magnetic Nanoparticles	<i>Salon F</i>
FE	Magnetic Recording Physics I	<i>Salon G</i>

1:00 PM - 5:00 PM		<i>Exhibit Hall</i>
FP	Computational Magnetism	
FQ	Magnetic Multilayers and Thin Films I	
FR	Magnetochemistry and Magnetism in the Life Sciences	
FS	Nanocrystalline/Amorphous Materials II	
FT	GMR, Spin Valves and Electron Spin Transport	

WEDNESDAY EVENING

7:30 PM		<i>Salon E/F</i>
FZ	IEEE Magnetics Society Tutorial Symposium: What's New in Biomagnetism?	

THURSDAY MORNING

8:30 AM – 11:30 PM		
Registration Desks Open		<i>4th Floor Atrium Area</i>

9:00 AM

GA	Magnetic Fluids II	<i>Salon B/C/D</i>
GB	Magnetic Sensors II	<i>Salon H/I/J</i>
GC	Patterned Films	<i>Salon E</i>
GD	Magnetic Tunnel Junctions II	<i>Salon F</i>
GE	Head/Media Interface II	<i>Salon G</i>

8:00 AM – 12 Noon *Exhibit Hall*

GP	Head/Media Interface III
GQ	Permanent Magnet Applications and Devices
GR	Magnetic Recording Physics II
GS	Magnetic Sensors III
GT	Magneto-Optic Materials and Devices
GU	Exchange Biasing

THURSDAY AFTERNOON

12 Noon – 5:00 PM		
Partner Pavilion Open		<i>Exhibit Hall</i>

2:00 PM

HA	Magnetic Multilayers and Thin Films II	<i>Salon B/C/D</i>
HB	Power and Magnetic Device Control II	<i>Salon H/I/J</i>
HC	Ferrites II	<i>Salon E</i>
HD	Microwave and Magnetocaloric Materials	<i>Salon F</i>
HE	Recording Systems	<i>Salon G</i>

5:00 PM

Conclusion of the Intermag 2003 Conference

WELCOME TO INTERMAG 2003

SCOPE OF CONFERENCE

The Intermag 2003 Conference is sponsored by the IEEE Magnetics Society and will be held from Sunday, March 30th, through Thursday, April 3rd, at the Boston Marriott Copley Place, in Boston, Massachusetts, USA. As a member of the international scientific and engineering communities interested in recent developments in magnetics and associated technologies, you are invited to attend the Conference and contribute to its technical sessions.

This is the premier conference on applied magnetics and information storage technologies. An exciting program has been planned for Intermag 2003. Five invited Symposia are scheduled to cover rapidly growing areas of interest: biological and medical applications of magnetics, high frequency magnetics, nano-technologies, and spintronics. In addition, a Tutorial session on biological and medical applications of magnetics, as an introduction to this field of research, has been assembled. Finally, the Exhibits in the Partner's Pavilion, reviewing the latest products and developments in applied magnetics, will be of great interest.

Intermag 2003 will provide an outstanding opportunity for participants to meet their colleagues from around the world, and to share and discuss developments in a wide range of topics.

VISA REQUIREMENTS FOR ENTRY INTO THE USA

Citizens of other countries must carry a valid passport and visa to enter the USA. Foreign participants should contact the United States Embassy, Consulate, or Office of Tourism in their home country AS SOON AS POSSIBLE to determine their particular visa requirements. If you need a personal letter of invitation to attend Intermag 2003, please contact Courtesy Associates at intermag@courtesyassoc.com. You must provide your full name and complete mailing address. An original, signed letter will be sent to you via standard mail service since only an original copy (not faxed or email version) will be accepted with the visa application.

PLEASE NOTE that the Intermag Conference cannot and will not contact or intervene with any U.S. Embassy or Consulate office on a participant's behalf. We strongly urge you to begin the process to obtain a visa immediately.

PLENARY SESSION

During the Conference Plenary Session on Monday, March 31st, at 2:00 PM, the IEEE Magnetics Society will recognize its 2003 award recipients: the *IEEE Information Storage Field Award* will be presented to Professor **Neal Bertram**, and the *IEEE Magnetics Society Lifetime Achievement Award* will be presented to Professor **Carl Patton**. The newly elected IEEE

Fellows will be recognized, and the InterMag Student Travel Award winners will be announced.

The InterMag 2003 Plenary Talk will focus on the current, significant changes in R&D trends and the government policies formulated to address and impact these. Full details will be available soon on the Conference web site.

TUTORIAL SYMPOSIUM ON BIOMAGNETISM

The IEEE Magnetics Society Education Committee presents:

“What’s New in Biomagnetism?”

Date: Wednesday, April 2, 2003

Time: 7:30 PM – 10:00 PM

Room: Salon E/F

A distinguished group of speakers will highlight the latest developments in biomagnetism. The symposium will be tutorial in nature and will cover topics, such as, biomedical applications of nanoparticles, magnetoelectronics for molecular biology, magnetism-based biomedical sensors and magnetic resonance microscopy. If you ever wondered how magnetics is advancing the state of the art in medical technology then please come and join us for this exciting session.

TRANSPORTATION & GENERAL INFORMATION

Extensive construction is under way at Boston’s Logan Airport, its roadway connections to Boston and along the waterfront. It is generally recommended not to rent a car. Cab fare from Logan to the Marriott Copley is about \$25. Bus service is available from *City Transportation Boston Hotel Shuttle* every 15 minutes from 6 AM to midnight for about \$9.50 each way. For those interested in a tour of Boston’s historic Metropolitan Transit System (“The T”), a free airport shuttle bus (No. 22, 33 or 55) can get you to the Logan T stop “Airport”. From there you take the blue line inbound to “Government Center”; change to the green line (west) and get off at “Copley”. The fare is \$1. For a map, please visit: www.mbta.com.

For further information on Boston, please refer to the Greater Boston Convention and Visitors Bureau’s web site that can be found under the “Location” tab of the Conference web site (www.intermagconference.com).

BOSTON WEATHER

In late March, early April the weather in Boston is unpredictable. It could be $40^{\circ}\pm 20^{\circ}\text{F}$ ($5^{\circ}\pm 13^{\circ}\text{C}$), clear or cloudy, rain or snow.

HOTEL

The Boston Marriott Copley Place, 110 Huntington Avenue, Boston, Massachusetts, is the site for InterMag 2003, to be held from Sunday, March 30th, through Thursday, April 3rd. The hotel is located in the heart of Boston’s historic Back Bay

neighborhood. The Marriott Copley Place offers easy access (some of it via enclosed walkways) to a large variety of upscale shops, restaurants and movie theatres. The Copley Place "T" subway stop is nearby, providing convenient access to the airport, the Amtrak station and the Boston suburbs.

All technical sessions and the exhibits will be held on the Third and Fourth floors of the hotel. Both floors are accessible to physically challenged participants.

The Boston Marriott Copley Place must receive your hotel room reservation no later than March 3rd for you to obtain the special Intermag 2003 room rates. Complete instructions for how to book a room via the web site, by fax or by mail can be found at: www.intermagconference.com.

For more information on the Boston Marriott Copley Place please visit their web site at: www.Marriott.com/bosco/copley.

Whenever you contact the hotel, please identify yourself as a participant in the 2003 Intermag Conference to ensure that you receive the Intermag 2003 special conference rate of \$176 plus tax for a single room or \$196 plus tax for a double room. The hotel can serve all special needs, including non-smoking and smoking room requests, so please make your preferences known when you reserve your room. You will receive confirmation of your hotel reservation directly from the Marriott. Each Intermag 2003 participant is responsible for making his/her own hotel reservation and for paying all bills upon checkout.

CONFERENCE REGISTRATION

You can register **in advance at a reduced rate** by completely filling out the Advance Registration Form. Payment in U.S. dollars must be made by personal or corporate check (**drawn on a U.S. bank only**), or by MasterCard, Visa or American Express credit card. Make checks payable to "Intermag 2003." **All Conference attendees, including speakers, must pay registration fees.**

The Conference Advance Registration Form and complete instructions for submitting it can be found on the Intermag 2003 web site at: www.intermagconference.com. You are encouraged to register via the secure web site to save time and to ensure that you are registered well in advance of the deadline of March 3, 2003.

Onsite registration during the Conference will be at higher rates. After March 3rd, only the higher registration fees will be accepted, and only onsite at the Conference. **Forms not accompanied by payment or with incomplete or incorrect credit card information will be considered "late" and the higher rates will be collected onsite at the Conference.**

All registrants paying the full registration fees will receive a copy of the Digest Book in the form of a CD-ROM, which will be distributed at the Conference Registration Desks. They will also

receive the Conference Proceedings, scheduled to be published in the *IEEE Transactions on Magnetics* (Fall 2003).

Registration Fees:	Prior to March 3rd	After March 3rd
IEEE Member	\$525	\$570
Non-Member	\$655	\$700
Student/Unemployed/Retiree		
IEEE Member	\$200	\$245
Non-Member	\$250	\$295
Conference Social Event (at the New England Aquarium)	\$55	\$55
Additional Digest Book (CD-ROM)	\$20	\$20

Students and unemployed retirees who register at the lower fees will not receive a copy of the Proceedings, except through their membership in the IEEE Magnetics Society. Non-member students registering for the Conference will be given IEEE and Magnetics Society memberships **free** of charge for the remainder of the year 2003 (April onwards).

Additional CD-ROM copies of the Digest Book may be purchased for \$20 each either in advance or onsite at the Registration Desks. All attendees will be required to wear Intermag 2003 name badges to enter the Technical Sessions and Exhibits. **The use of cameras, videotaping and/or recording devices in the technical sessions is strictly prohibited.**

REMEMBER: All Advance Registration forms must be accompanied by full payment and must be received by March 3, 2003.

The Conference Registration Desks, located in the Atrium Area on the Fourth Floor of the hotel, will be open during the following hours:

Sunday, March 30 th	4:00 PM – 8:00 PM
Monday, March 31 st	7:00 AM - 2:00 PM
Tuesday, April 1 st	8:30 AM – 2:30 PM
Wednesday, April 2 nd	8:30 AM – 2:30 PM
Thursday, April 3 rd	8:30 AM – 11:30 AM

Registration Cancellation Policy: Cancellations of advance registrations must be submitted in writing and received at Event Solutions Unlimited no later than Monday, March 3, 2003. Refunds of the original payment, less a \$75 service fee, will be mailed following the Conference. **Substitutions may be made at any time, including onsite, for a registrant who cannot attend but has paid the registration fee in advance.**

STUDENT TRAVEL SUPPORT

The Education Committee and the Awards Committee of the IEEE Magnetics Society are pleased to sponsor a small number of students working in magnetics to attend the INTERMAG 2003 Conference. These awards (approximately \$500 each)

are intended to partially offset travel costs to attend the Conference. Nominations will be accepted from faculty advisors of the interested students. The nominator does not have to be the student's primary advisor, but must be intimately familiar with his or her work. The nominator must also be a member of the IEEE Magnetics Society. Preference will be given to students who are nearing completion of their graduate studies and presenting papers at the conference. No support will be granted to postdoctoral fellows or non-students. For details, please visit the Conference web site.

CONFERENCE SOCIAL EVENT

The Conference social event will be held on Tuesday evening, April 1st, at the New England Aquarium from 6:00 PM to 10:00 PM. Tickets for the event may be ordered at the time of Advance Registration, or purchased on site during the Conference. Due to limited space, advance purchase is encouraged.

The New England Aquarium opened its doors to the public for the first time on June 20, 1969. The Aquarium was designed with the intention of providing an underwater experience for the visitor and of being a cultural institution that would reconnect Boston to its waterfront. In its more than 30 years of existence the Aquarium has grown significantly. The Giant Ocean Tank opened in 1970 and was, at the time, the largest circular, salt-water tank in the world. The Aquarium continues its tradition to serve as a leader in research, education and conservation.

The evening will feature access to the main exhibits. Dinner stations will be set up throughout the aquarium featuring a choice of meat, fish and vegetarian entries, soft beverages, dessert and coffee. A full cash bar will be available from 6:00 PM to 9:00 PM.

THE NEW PARTNER PAVILION

A CHANGE IN TONE FOR INTERMAG EXHIBITS AND INDUSTRIAL SUPPORT

In our survey of the commitment of loyal industrial supporters and exhibitors, we have learned that their continuous involvement is driven by a commitment to industry education, development and success. All industrial support and exhibition contributions have offset the considerable expenditures involved with organizing and delivering this Intermag Conference. Partner contributions have helped to keep down registration fees without compromising the quality of the program. The dedication of our Partners to the overall success has energized this year's Conference leadership to change the tone and the image of the conference sponsors. While the IEEE Magnetics Society hosts the conference, there is a need to recognize exhibitors and industrial supporters for their unwavering partnership; thus, the birth of the Partner Pavilion.

The pavilion will be located in the University Hall (Exhibit Hall) of the Boston Marriott Copley Place from Tuesday, April 1 – Thursday, April 3. The hours are as follows:

TUESDAY..... 12:00 PM – 5:00 PM
WEDNESDAY..... 12:00 PM – 5:00 PM
THURSDAY..... 12:00 PM – 5:00 PM

Please be sure to stop by the Partner displays and thank them for their continued support. If you are interested in being a Conference Partner please contact Wendy Acevedo Arthur at (202) 367-2358 or via e-mail at warthur@courtesyassoc.com.

PARTNER PROGRAM

The 1500 professionals in attendance during the InterMag Conference are primarily scientists, engineers and managers representing a diverse range of disciplines related to the physics and engineering applications of magnetism and magnetic materials. Principal areas of interest cover both theory and applications, and include magnetic recording, magnetic thin films, magnetic computation, magnetism in the biological sciences, soft and hard magnetic materials, and microwave magnetics to name a few.

Contributions from our Partners help offset the expenditures involved with the screening process of papers and presentations, food and beverage and audiovisual needs. These contributions help keep down registration fees without compromising the quality of the program. We thank you for your consideration and appreciate any monetary support you are able to provide.

PLATINUM PARTNERSHIP \$2,000

- Complimentary 8 x 10 space to be staffed or not staffed by your organization
- You can fill with any collateral you see fit to promote your organization
- A listing acknowledging your generosity on all conference thank you signage under the "Platinum Sponsor" heading

GOLD PARTNERSHIP \$1,000

- A listing acknowledging your generosity on all conference thank you signage under the "Gold Sponsor" heading

SILVER PARTNERSHIP \$500

- A listing acknowledging your generosity on all conference thank you signage under the "Silver Sponsor" heading

BRONZE PARTNERSHIP Less than \$500

- A listing acknowledging your generosity on all conference thank you signage under the "Bronze Sponsor" heading

To become a Partner, please download the Partner Form (Word or PDF) from the Conference web site, or contact us at:

Intermag Conference Partnership
c/o Courtesy Associates, Inc.
2025 M Street, Suite 800
Washington DC 20036
Attention: Wendy Arthur (warthur@courtesyassoc.com)

BIERSTUBE AND COFFEE

Coffee service will be available on Monday through Thursday mornings among the Poster Sessions and Exhibits in the Exhibit Hall (University Hall) located on the Third Floor, from 8:00 AM – 10:00 AM. On Sunday evening, the Bierstube will be in the Fourth Floor Atrium, adjacent to the Conference Registration Desks, from 5:00 PM – 8:00 PM. On Monday through Wednesday evenings, the Bierstube will be held in the University Hall from 5:00 PM – 6:00 PM.

SPOUSE HOSPITALITY

In keeping with recent Intermag Conferences, the Boston Conference will not include a specific program for accompanying spouses. However, we will have a hospitality area with seating available each morning of the Conference in the Exhibit Hall located on the Third Floor to provide a convenient meeting point.

PUBLICATIONS ROOM

The Publications Room, where authors can check the status of their manuscripts, will be located in the Yarmouth and Vineyard Rooms on the Fourth Floor. The status of all papers will be posted here and authors should check periodically on their individual papers. Authors may leave messages for their Editors. Each Editor will post a notice of the time at which he/she can be found in the Publications Room. Editors will respond to messages and questions as promptly as possible. This room will be open as follows:

Monday – Wednesday	9:00 AM – 5:00 PM
Thursday	9:00 AM – 2:00 PM

SPEAKER PRACTICE ROOM

Speakers are reminded that the conference is planning an all-electronic presentation format. Presentations will be made using lap-tops and digital projection equipment ("beamers"). Authors will attach their laptop computers to digital projection equipment supplied by the conference. It is strongly urged that you come prepared with your presentation in Microsoft PowerPoint format for a PC. Detailed instructions for laptop presentations will be made available on the conference website.

Speakers may use the Falmouth Room (adjacent to the Atrium on the Fourth Floor) to practice their presentations. Audiovisual equipment will be available for authors to use from 8:00 AM until 5:00 PM on Monday through Thursday. Speakers are urged

to use this facility to practice their presentation, either alone or with colleagues.

POSTER SESSIONS

The hours of the Poster Sessions are 8:00 AM – 12:00 Noon and 1:00 PM – 5:00 PM. Authors should set up their materials at least half an hour before session start times. They must be by their posters from 8:00 AM – 9:00 AM and 11:00 AM - 12:00 Noon for the morning sessions, and from 1:00 PM – 2:00 PM and 4:00 PM – 5:00 PM for the afternoon sessions. Authors are reminded to remove all of their materials, excluding the push-pins that have been provided by the Conference, promptly at the end of their session. The Conference Coordinators will discard materials that are not removed, in order to prepare for the next session.

IEEE MAGNETICS SOCIETY

President: Ronald S. Indeck
Vice President: Kevin O'Grady
Secretary/Treasurer: Carl E. Patton
Past President: Robert E. Fontana, Jr.
Executive Director: Diane S. Suiters

ELECTED ADMINISTRATIVE COMMITTEE MEMBERS

Terms Expiring December 31, 2003

D. Dahlberg; G. Fish; R. Indeck; M. Kryder; D. Lavers; C. Lodder; Y. Miura. R. Victora

Terms Expiring December 31, 2004

W. Cain; M. Doerner; B. Gurney; R. Katti; C. Patton; C. Perlov; T. Suzuki; S. Wang

Terms Expiring December 31, 2005

G. Bertotti; T. Howell, D. Lambeth; R. O'Handley; C. Ross; D. Weller; P. Wigen; R. Wood

FUTURE CONFERENCES

9th Joint MMM-Intermag Conference: January 5-9, 2004, Anaheim, CA

49th Conference on Magnetism and Magnetic Materials: November 7-11, 2004, Jacksonville, FL

CONFERENCE ORGANIZATION

General Chair	V. R. Ramanan
Treasurer	Doug Lavers
Program Chairs	Laura Henderson Lewis Massimo Pasquale Michael Alex
Publications Chair	Caroline Ross
Printing and Publicity Chair	Can E. Korman
Local Chair	Robert O'Handley
Industrial Support	Takao Suzuki
Exhibits Coordinator	Wendy Acevedo Arthur, Courtesy Associates
Conference Coordinator	Diane Suiters, Wendy Acevedo Arthur and Sarah O'Brien, Courtesy Associates

Publications Editors

Russell Cowburn, Jim Daughton, Juan Fernandez-de-Castro, Diandra Leslie-Pelecky, Hiroaki Muraoka, Amanda K. Petford-Long, Stephen Russek, Manuel Vázquez, David Wachenschwanz, Roger Wood

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ADDITIONAL INFORMATION

If you would like to receive more information about Intermag 2003 or to be placed on the Intermag Conference Mailing List, please contact Courtesy Associates at:

Intermag 2003
c/o Courtesy Associates
2025 M Street, N.W., Suite 800
Washington, D.C. 20036, USA
PHONE: (202) 973-8676
FAX: (202) 973-8722
EMAIL: intermag@courtesyassoc.com

You may also access complete conference information through the Web at the Intermag home page at:

www.intermagconference.com

Session AA
THIN FILMS: DOMAINS AND MAGNETIZATION
PROCESSES

Jeffrey McCord
 IFW, Dresden, Germany

- *AA-01** **Spatially Resolved Ultrafast Precessional Magnetic Switching**
9:00 Wayne Hiebert, Liesbet Lagae, Jo De Boeck, *IMEC, Leuven, Belgium*
- AA-02** **Magnetic Configuration at the Interface of Exchange-Coupled Bilayers Studied by Angle-Dependent Magnetotransport Measurements**
9:30 Stephane Mangin¹, Yves Henry², Francois Montaigne¹, ¹*Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*, ²*Institut de Physique et Chimie des Matériaux de Strasbourg, Strasbourg, France*
- AA-03** **Magnetic Domain Walls in Exchange-Coupled DyFe₂/YFe₂ Superlattices**
9:45 Dumesnil Karine¹, Dufour Catherine¹, Rogalev Andrei², Wilhelm Fabrice², ¹*Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*, ²*ESRF, Grenoble, France*
- AA-04** **Computational Study of Low-Field Domain Wall Mobility in Nanowires of Rectangular Cross Section**
10:00 Luis Lopez-Diaz¹, Luis Torres¹, Eduardo Martinez¹, Oscar Alejos², ¹*Universidad de Salamanca, Salamanca, Spain*, ²*University of Valladolid, Valladolid, Spain*
- AA-05** **Magnetic Domain Wall Dynamics in A Permalloy Planar Nanowire**
10:15 Del Atkinson, Dan A Allwood, Gang Xiong, Michael D Cooke, Colm C Faulkner, Russell P Cowburn, *University of Durham, Durham, United Kingdom*
- AA-06** **Domain Wall Propagation in Patterned Ni₈₀Fe₂₀ Zigzag Wires**
10:30 Jai-Lin Tsai¹, S-F Lee¹, Y-D Yao¹, J-H Hsieh², G-H Huang², ¹*Institute of Physics, Academia Sinica, Taipei, Taiwan*, ²*Department of Physics, Kaohsiung, Taiwan*
- AA-07** **Magnetization Configurations in Microstructured Permalloy Networks**
10:45 J. C. Wu¹, Ida Chang¹, Zung-Hang Wei², Ching-Ray Chang², ¹*Department of Physics, National Changhua University of Education, Changhua, Taiwan*, ²*Center for Nanostorage Research, Department of Physics, National Taiwan University, Taipei, Taiwan*
- AA-08** **Dynamic Hysteresis in FINEMET Thin Films**
11:00 Luciana Santi¹, Alessandro Magni¹, Gianfranco Durin¹, Rubem Luis Sommer², Francesca Colaioni³, Stefano Zapperi³, ¹*IEN Galileo Ferraris, Torino, Italy*, ²*Universidade Federal de Santa Maria, Santa Maria, Brazil*, ³*Unità di Roma, INFN, Roma, Italy*

- AA-09 Dynamical Response of Magnetic Soft Underlayers**
11:15 John P. Nibarger¹, Radek Lopusnik¹, Thomas J Silva¹, Hong-Sik Jung², ¹*National Institute of Standards and Technology, Boulder, CO*, ²*Center for Materials for Information Technology, The University of Alabama, Tuscaloosa, AL*
- AA-10 High-Frequency Characteristics of Metal/Native Oxide Multilayers**
11:30 Geoffrey S. D. Beach¹, Tom J. Silva², F. T. Parker³, David J. Smith⁴, Ami E. Berkowitz¹, ¹*University of California, San Diego, La Jolla, CA*, ²*National Institute of Standards and Technology, Boulder, CO*, ³*Center for Magnetic Recording Research, La Jolla, CA*, ⁴*Arizona State University, Tempe, AZ*
- AA-11 Eigenmodes and Ferromagnetic Resonance Line Width of Inhomogeneous Thin Films**
11:45 Robert D. McMichael¹, Andrew Kunz², Douglas J. Twisselmann¹, ¹*NIST, Gaithersburg, MD*, ²*Lawrence University, Appleton, WI*

MONDAY AM

SALON H/I/J

Session AB
HEAD/MEDIA INTERFACE I

David Bogy
 University of California, Berkeley, CA

- AB-01 High Resolution Measurement of Temperature Distribution of Head Coil and Air Bearing Surface**
9:00 Junguo Xu¹, Mikio Tokuyama¹, Masayuki Kurita¹, Youji Maruyama², ¹*Mechanical Engineering Research Laboratory, Hitachi Ltd., Tsuchiura, Japan*, ²*Data Storage and Retrieval Systems Division, Hitachi Ltd., Odawara, Japan*
- AB-02 Observation and Simulation Study of Dynamic Load Process**
9:15 Yansheng Ma, Bo Liu, Jiang Zhou, *Data Storage Institute, Singapore, Singapore*
- AB-03 Flying Height Modulation Estimation From Pseudo-Random Readback Signal in Disk Drives**
9:30 Qinghua Zeng, *IBM Almaden Research Center, San Jose, CA*
- AB-04 Head-Disk Interface Instability due to Intermolecular Forces**
9:45 Brian Hayes Thornton, David B Bogy, *UC Berkeley, Berkeley, CA*
- AB-05 Optimal Suspension Design for Femto Sliders**
10:00 Shengkai Yu, Bo Liu, *Data Storage Institute, Singapore, Singapore*
- AB-06 Dynamics of Textured Pico-Sliders During Contact Start/Stop**
10:15 Lin Zhou¹, Michael Beck², Hans Heinrich Gatzen², Kenneth Altshuler³, Frank Talker¹, ¹*Univ. of California, San Diego, La Jolla, CA*, ²*Hanover University, Hanover, Germany*, ³*Seagate Storage Products, Longmont, CO*

***AC-06 Recent Development in Magnetic Tunnel Junctions**

11:30 Xiaohai Xiang¹, Tao Zhu², F. Sheng², Z. Zhang², John Q. Xiao¹,
¹Department of Physics and Astronomy, University of Delaware, Newark, DE, ²State Key Laboratory for Magnetism, Institute of Physics, Chinese Academy of Sciences, Beijing, People's Republic of China

MONDAY AM

SALON F

Session AD

NANOCRYSTALLINE/AMORPHOUS MATERIALS I AND MODELING

R. Hasegawa

Honeywell, Conway, SC

Martin Sablik

Southwest Research Institute, San Antonio, TX

AD-01 Novel Tin-Added Bulk Amorphous Fe-Based Alloys

9:00 C. K. Zhu¹, C. Y. Lin¹, T. S. Chin¹, S. X. Zhou², Z. C. Lu², L. Wang², F. F. Chen², *¹Department of Materials Science and Engineering, Hsinchu, Taiwan, ²State Key Lab. for Amorphous Metals, Central Iron and Steel Institute, Beijing, People's Republic of China*

AD-02 Microstructure and Magnetic Properties of (Fe_{1-x}Co_x)₈₁Nb₇B₁₂ Nanocrystalline Alloys

Ivan Skorvanek, *Inst. Experimental Physics SAS, Kosice, Slovakia*

***AD-03 Thermal Dependence of Magnetic Properties in Fe-Co and Fe-Cr Base Nanocrystalline Alloys**

9:30 Cristina Gomez-Polo, Jose Ignacio Perez-Landazabal, Vicente Recarte, *Universidad Publica de Navarra, Pamplona, Spain*

AD-04 Annealing-Induced Properties of Al-N-M (M: Co, Fe) Thin Films

10:00 Anup Ghosh Roy¹, Osamu Nittono², *¹Carnegie Mellon University, Pittsburgh, PA, ²Tokyo Institute of Technology, Tokyo, Japan*

AD-05 Effect of Evaporative Deposition Angle on Anisotropy in Co-MgF₂ Nanocomposite Soft Magnetic Materials

Yu Lin, Charles R. Sullivan, Christopher G. Levey, Ursula J. Gibson, *Dartmouth College, Hanover, NH*

AD-06 Fuzzy Approach to Modeling Scalar Hysteresis

10:30 Bruno Azzerboni, Mario Carpentieri, Giovanni Finocchio, Maurizio Ipsale, Fabio La Foresta, *University of Messina, Messina, Italy*

AD-07 Remarks About the Lorentian Function Approximation in Hysteresis Modeling of Not Oriented Grain Steels

10:45 Bruno Azzerboni¹, Ermanno Cardelli², Giovanni Finocchio¹, *¹University of Messina, Messina, Italy, ²University of Perugia, Perugia, Italy*

- AD-08** **Tunable RF Noise Suppressor Modeling Using Soft Magnetic Film on Coplanar Transmission Line**
11:00 Ki Hyeon Kim, Shinji Ikeda, Masahiro Yamaguchi, Ken-Ichi Arai, *Research Institute of Electrical Communication, Tohoku Univ., Sendai, Japan*
- AD-09** **Testing Damping Formalisms with Microwave Permeability**
11:15 James Rantschler, Chester Alexander, *university of Alabama, Tuscaloosa, AL*
- AD-10** **The Spatial Harmonic Analysis of FEM Results in Magnetostatics**
11:30 Alexander V Kildishev¹, Sheppard J Salon², M. V. K Chari², O-Mun Kwon², ¹*School of ECE, Purdue University, West Lafayette, IN*, ²*School of ECSE, Rensselaer Polytechnic Institute, Troy, NY*
- AD-11** **Modified Law of Approach for the Magnetomechanical Model: Application of the Rayleigh Law to the Stress Domain**
11:45 Lu Li¹, David C Jiles², ¹*Department of Electrical and Computer Engineering, Iowa State University, Ames, IA*, ²*Ames Laboratory and Department of Materials Science and Engineering, Iowa State University, Ames, IA*

MONDAY AM

SALON G

Session AE
PERPENDICULAR MEDIA I

Gerardo A. Bertero
 Komag Inc., San Jose, CA

- AE-01** **The Effect of Hybrid Media to Achieve Both Good Thermal Stability and Excellent Read/Write Performance**
9:00 Byung-Kyu Lee, Hoon-Sang Oh, K. J. Lee, Young-Hun Lim, Kyongmi Lee, No-Yeol Park, *Samsung Advanced Institute of Technology, Yongin-Si, Republic of Korea*
- AE-02** **Enhancement of Signal to Noise Ratio by Underlayer Control in CoCr-Based Perpendicular Magnetic Recording Media**
9:15 Hoon-Sang Oh, Byung-Kyu Lee, Kyongmi Lee, Kyu-Yong Kim, No-Yeol Park, *Samsung Advanced Institute of Technology, Suwon, Republic of Korea*
- AE-03** **Magnetic Properties, Magnetic Cluster Size and Read-Write Performance of CoCrPt-SiO₂ Perpendicular Recording Media**
9:30 Shunji Takenoiri¹, Yasushi Sakai², Kazuo Enomoto², Sadayuki Watanabe¹, Hiroyuki Uwazumi², ¹*Fuji Electric Corporate Research and Development, Ltd., Matsumoto, Japan*, ²*Fuji Electric Co., Ltd., Matsumoto, Japan*
- AE-04** **Ultra-Thin Intermediate Template Layer for Perpendicular Recording Media**
9:45 Yoshiyuki Hirayama, Ichiro Tamai, Ikuko Takekuma, Yuzuru Hosoe, *Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan*

AE-05 10:00 Role of Exchange Break Layer and Soft Underlayer in Multilayer Perpendicular Recording System

Min Xiao¹, Kentaro Takano¹, Hoa Do¹, Andreas Moser¹, Eric E. Fullerton¹, Serena Faruque², ¹IBM Almaden Research Center, San Jose, CA, ²California Polytechnic State University, San Luis Obispo, CA

AE-06 10:15 Fe-Co-B/Ni-Fe Soft Magnetic Underlayer with High Saturation Magnetization for Perpendicular Magnetic Recording Media

Sok-Hyun Kong, Takeshi Okamoto, Shigeki Nakagawa, *Tokyo Institute of Technology, Tokyo, Japan*

AE-07 10:30 Recording Performance of Double-Layered Perpendicular Recording Media with Antiferromagnetic Layer

Sadayuki Watanabe¹, Shunji Takenoiri¹, Yasushi Sakai², Kazuo Enomoto², Hiroyuki Uwazumi², ¹Fuji Electric Corporate Research and Development, Ltd., Matsumoto, Japan, ²Fuji Electric Co., Ltd., Matsumoto, Japan

AE-08 10:45 Thermally Stable High Moment FeCo/IrMn Soft Underlayers for Perpendicular Media

H. S. Jung¹, W. D. Doyle², ¹MINT Center, University of Alabama, Tuscaloosa, AL, ²MINT Center and Department of Physics and Astronomy, University of Alabama, Tuscaloosa, AL

AE-09 11:00 Pt/C Intermediate Layer for Co-Cr Perpendicular Magnetic Recording Media with Extremely High Resolution

Jun Ariake¹, Haruki Yamane¹, Naoki Honda¹, Kazuhiro Ouchi¹, Shun-Ichi Iwasaki², ¹Akita Research Institute of Advanced Technology, Akita, Japan, ²Tohoku Institute of Technology, Sendai, Japan

AE-10 11:15 Numerical Switching Experiments for Perpendicular Recording

Martin Stehno¹, Thomas Schrefl¹, Rok Dittrich¹, Hermann Forster¹, Josef Fidler¹, Yasutaro Uesaka², ¹Vienna University of Technology, Vienna, Austria, ²Nihon University, Kohriyama, Japan

AE-11 11:30 Micromagnetic Analysis of Bit Decay in Perpendicular Recording Media

Enhong Yuan, Jianhua Xue, Randall H. Victora, *University of Minnesota, Minneapolis, MN*

AE-12 11:45 Computer Simulation of Coercive Force and Thermal Viscosity in Perpendicular Recording Media

Masukazu Igarashi¹, Yoshio Suzuki¹, Miki Hara¹, Atsushi Nakamura¹, Yutaka Sugita², ¹CRL, Hitachi, Ltd., Tokyo, Japan, ²Tohoku Institute Technology, Sendai, Japan

MONDAY 2:00 PM

SALON E/F

**Session BZ
PLENARY SESSION**

V.R. Ramanan
ABB Inc., Raleigh, NC

Session CA
MICROMAGNETICS

Roy Chantrell
Seagate Research, Pittsburgh, PA

- CA-01** **Micromagnetic Dynamic Computations Including Eddy**
9:00 **Currents**
Luis Torres¹, Luis Lopez-Diaz¹, Eduardo Martinez¹, Oscar Alejos²,
¹*Universidad de Salamanca, Salamanca, Spain*, ²*Universidad de*
Valladolid, Valladolid, Spain
- CA-02** **Geometrical Analysis of Precessional Switching**
9:15 Claudio Serpico¹, Isaak D. Mayergoyz², Massimiliano d'Aquino¹,
Giorgio Bertotti³, ¹*University of Naples, Naples, Italy*, ²*Dept. of*
Electrical Engineering, University of Maryland, College Park, MD,
³*IEN Galileo Ferraris, Torino, Italy*
- CA-03** **Critical Fields and Critical Angles for Pulse Precessional**
9:30 **Switchings of Thin Magnetic Films**
Giorgio Bertotti¹, Isaak Mayergoyz², Claudio Serpico³, ¹*IEN*
Galileo Ferraris, Torino, Italy, ²*University of Maryland, College*
Park, MD, ³*University of Napoli, Napoli, Italy*
- CA-04** **Numerical evaluation of slow thermally induced magnetization**
9:45 **reversal in granular magnetic materials**
Oksana Chubykalo¹, Jesús González¹, Roy W. Chantrell², ¹*Instituto*
de Ciencia de Materiales de Madrid, CSIC, Madrid, Spain,
²*Seagate Research, Pittsburgh, PA*
- CA-05** **Thermal Magnetization Rotation of Small Nanoparticles**
10:00 Vassilios Tsiantos, Thomas Schrefl, Werner Scholz, Hermann
Forster, Dieter Suess, Rok Dittrich, Josef Fidler, *Vienna University*
of Technology, Vienna, Austria
- CA-06** **Langevin Micromagnetic Simulation and MOKE**
10:15 **Measurements of Vortex Formation As A Function of**
Thickness in Submicron Patterned Permalloy Thin Films
James Geza Deak, *R&D, Micron Technology Inc., Boise, ID*
- CA-07** **Fast Boundary Methods for Magnetostatic Interactions in**
10:30 **Micromagnetics**
Hermann Forster, Thomas Schrefl, Josef Fidler, *Institute for Solid*
State Physics, TU Vienna, Vienna, Austria
- CA-08** **Application of Fast Multipole Method to Micromagnetic**
10:45 **Simulation of Periodic Systems**
Dmytro M Apalkov, Pieter B Visscher, *University of Alabama,*
Tuscaloosa, AL
- CA-09** **Micromagnetic Study of Magnetic Domain Structures in**
11:00 **Submicron Cu/Ni/Cu(001) Discs**
Jonathan Kin Ha, Riccardo Hertel, J. Kirschner, *Max Planck*
Institute for Microstructure Physics, Halle, Germany

CA-10 **Micromagnetic Calculation of the Transverse Susceptibility of Patterned Media**
11:15

Leonard Spinu¹, Dorin Cimpoesu², Laurentiu Stoleriu², Alexandru Stancu², ¹University of New Orleans, New Orleans, LA, ²Alexandru Ioan Cuza University, Iasi, Romania

CA-11 **Micromagnetic Modeling of Pseudo Spin Valve Elements**

11:30 Xiaozhou Shu, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, Shanghai, People's Republic of China

TUESDAY AM

SALON H/I/J

Session CB

GIANT MAGNETO-IMPEDANCE AND HIGH FREQUENCY APPLICATIONS

Manuel Vázquez

Instituto De C. Materiales, CSIC, Cantoblanco, Spain

***CB-01** **Microwave Properties of Diluted Composites Made of Magnetic Wires with Giant Magneto Impedance Effect**
9:00

Olivier Acher, Marc Ledieu, O. Reynet, Anne-Lise Adenot, CEA Le Ripault, Monts, France

CB-02 **Electrical Resistivity and GHz Permeability of (CoFeB)-(SiO_{1.9}) Hetero-Amorphous Granular Films**
9:30

Makoto Munakata¹, M. Namikawa¹, Mashio Motoyama², M. Yagi¹, Yutaka Shimada³, Shin Yabukami³, Masahiro Yamaguchi³, K. I. Arai³, ¹Sojo Univ., Kumamoto, Japan, ²DeltaWorks, Kumamoto, Japan, ³Tohoku Univ., Sendai, Japan

CB-03 **Ferromagnetic Resonance in Granular Soft Magnetic Films**

9:45 Xiao¹, ¹Department of Physics and Astronomy, University of Delaware, Newark, DE, ²Nanjing University, Nanjing, People's Republic of China

CB-04 **Complex Permeability (45MHz-3GHz) of 'Structured Flake-Polymer Composites'**
10:00

Jason Michael Fallon, QINETIQ MALVERN, Great Malvern, United Kingdom

CB-05 **Internal Magnetoimpedance of Amorphous Wires**

10:15 Victor Raposo¹, Jose Ignacio Iñiguez¹, Daniel García García¹, Ana García Flores¹, Manuel Vázquez², ¹Universidad de Salamanca, Salamanca, Spain, ²Instituto de Ciencia de Materiales, Madrid, Spain

CB-06 **Effect of Helicoidal Magnetoelastic Anisotropy in Non-Linear Magnetoimpedance of Co_{80.89}Fe_{4.38}Si_{8.69}B_{1.52}Nb_{4.52} Fibers**
10:30

José Gerivaldo dos Santos Duque¹, Cristina Gómez-Polo², Arthur Yelon³, Petru Ciureanu³, Alberto Einstein Paes De Araújo¹, Marcelo Knobel¹, ¹UNICAMP, Sao Paulo, Brazil, ²Universidad Publica de Navarra, Pamplona, Spain, ³École Polytechnique, Montreal, Canada

- CB-07** **The Effect of Torsion and Tensile Stress on the Circumferential Permeability of CoFeBSi Amorphous Wires**
10:45 Israel Betancourt, Raul Valenzuela, *Institute for Materials Research, UNAM, Mexico, Mexico*
- CB-08** **The Effect of Current Annealing on Giant Magneto-Impedance of Fe₇₂A₁₅Ga₂P₁₁C₆B₄ Amorphous Ribbons**
11:00 Nebojsa S. Mitrovic¹, Stefan Roth², Jurgen Eckert², Slobodan R. Djukic¹, ¹*Technical Faculty Cacak, Cacak, Yugoslavia*, ²*IFW Dresden, Dresden, Germany*
- CB-09** **Depth Profile of Transverse Permeability Spectrum in An Annealed Co-Based Amorphous Ribbon**
11:15 Y. W. Rheem¹, L. Jin¹, S. S. Yoon², C. G. Kim¹, C. O. Kim¹, E. E. Shalyguina³, ¹*Department of Materials Engineering, Chungnam National University, Daejeon, Republic of Korea*, ²*Department of Physics, Andong National University, Kyung-Book, Republic of Korea*, ³*Physical Faculty, Moscow State University, Moscow, Russian Federation*
- CB-10** **Influence of High-Current-Density Pulsing Annealing on Giant Magneto-Impedance Effect in Fe_{73.5}Cu₁Nb₃Si_{13.5}B₉ Ribbons**
11:30 Hui Liu, *Central Iron and Steel Research Institute, Beijing, People's Republic of China*
- CB-11** **Resonant and Nonresonant Phenomena in Measurements of Ferromagnetic Resonance in Co₆₆Fe₄B₁₂Si₁₃Nb₄Cu₁ Amorphous Ribbons**
11:45 Herlinda Montiel¹, Guillermo Alvarez², Israel Betancourt¹, Pilar Gutierrez¹, Rafael Zamorano², Raul Valenzuela², ¹*IIM-UNAM, Mexico*, ²*IPN, Mexico*

TUESDAY AM

SALON E

Session CC

SYMPOSIUM: NANOPROCESSING APPLICATIONS FOR MAGNETIC INFORMATION STORAGE

Robert E. Fontana, Jr.

IBM Almaden Research Center, San Jose, CA

- *CC-01** **Nanoscale Processing for Thin Film Recording Heads**
9:00 Jordan Katine, R.E. Fontana Jr., M.-C. Cyrille, S.A. MacDonald, *IBM Almaden Research Center, San Jose, CA*
- *CC-02** **TEM Characterization for Magnetic Nano Structure Processing**
9:30 Philip Rice¹, Robert Fontana², Jeffrey Childress², Stuart Parkin², Ernesto Marinero², ¹*IBM Almaden Research Center, San Jose, CA*, ²*IBM Research Division, San Jose, CA*
- *CC-03** **Nano-Processing for Thin Film Disc Applications**
10:00 Deiter Weller, Bin Lu, Yukiko Kubota, Jai-Young Kim, Ganping Ju, Xiaowei Wu, Timothy Klemmer, Nisha Shukla, Chao Liu, Roy Chantrell, Mark Kryder, *Seagate Research, Pittsburgh, PA*

- *CC-04** **Nano-Processing and Properties of Spin Transfer Device Structures**
10:30 Robert Buhrman, *Cornell University, Ithaca, NY*
- *CC-05** **Nano Processing for Magnetic Logic Applications**
11:00 Russell P Cowburn, *University of Durham, Durham, United Kingdom*
- *CC-06** **Nano Imprint Technology with Artificially Assisted Self-Assembling Patterns for Recording Media**
11:30 A. Kikitsu, S. Morita, H. Hieda, M. Sakurai, Y. Kamata, K. Naito, K. Asakawa, *Toshiba Corp., Kawasaki, Japan*

TUESDAY AM

SALON F

Session CD

SPIN INJECTION IN METALS AND SEMICONDUCTORS

William F. Egelhoff, Jr.

NIST, Metallurgy Division, Gaithersburg, MD

- *CD-01** **Ballistic Magnetoresistance in Atomic and Nanometer Size Contacts**
9:00 Nicolas Garcia, *Laboratorio de Física de Sistemas Pequeños y Nanotecnología, CSIC, Madrid, Spain*
- CD-02** **Spin-Current Magnetization Switching in CPP GMR Spin Valves**
9:30 Fred Mancoff, Renu Dave, Nicholas Rizzo, Tim Eschrich, Brad Engel, Saied Tehrani, *Motorola Labs, Tempe, AZ*
- CD-03** **Magnetization Reversal due to Spin Injection in Magnetic Junction**
9:45 R. J. Elliott¹, E. M. Epshtein², Yu. V. Gulyaev², P. E. Zilberman², ¹*Department of Physics, University of Oxford, Oxford, United Kingdom*, ²*Institute of Radioengineering and Electronics of Russian Academy of Sciences, Fryazino Moscow Region, Russian Federation*
- CD-04** **Spin Engineering of Ferromagnetic Films Via Inverse Piezoelectric Effect**
10:00 Jeong-Won Lee¹, Sung-Chul Shin¹, Sang-Koog Kim², ¹*KAIST, Daejeon, Republic of Korea*, ²*Seoul National University, Seoul, Republic of Korea*
- CD-05** **A Schottky Tunnel Barrier Contact for Electrical Spin Injection From A Magnetic Metal Into A Semiconductor**
10:15 A. T. Hanbicki¹, R. M. Stroud¹, R. Magno¹, G. Kioseoglou¹, C. H. Li¹, B. T. Jonker¹, G. Itkos², R. Mallory², M. Yasar², A. Petrou², ¹*Naval Research Laboratory, Washington, DC*, ²*SUNY at Buffalo, Buffalo, NY*

- CD-06 10:30 Spin Injection From A Ferromagnetic Metal Into A Semiconductor without A Tunneling Barrier**
 Hiroshi Ohno¹, Kanji Yoh², Kazuhisa Sueoka¹, Koichi Mukasa¹,
¹Graduate School of Engineering, Hokkaido University, Sapporo, Japan, ²RCIQE, Hokkaido University, Sapporo, Japan
- CD-07 10:45 Room Temperature Spin Injection in A Semiconductor in A Conventional MIS Heterostructure: Bias Voltage Dependence**
 Pol Van Dorpe¹, Vasyl F. Motsnyi¹, Viacheslav Ivanovich Safarov²,
 Wim Van Roy¹, G. Borghs¹, Jo De Boeck¹, ¹IMEC, Leuven, Belgium, ²Département de Physique, GPEC, Marseille, France
- CD-08 11:00 A Novel High Gain Silicon Based Spin Transistor**
 Cindi Dennis¹, Chitnarong Sirisathitkul¹, Graham Ensell², John Gregg¹, Sarah Thompson³, ¹Clarendon Laboratory, Oxford, United Kingdom, ²Department of Electronics and Computer Science, University of Southampton, Southampton, United Kingdom, ³Department of Physics, University of York, York, United Kingdom
- CD-09 11:15 Spin Injection in An FeCo/Si/FeCo Structure: A Spin Transistor**
 H. J. Lee¹, U. J. Hwang¹, S. J. Cho¹, Y. M. Kim¹, J. Y. Chang¹, Y. J. Park¹, S. H. Han¹, Y. K. Kim², M. W. Shin³, W. Y. Lee¹, ¹Korea Institute of Science and Technology, Seoul, Republic of Korea, ²Korea University, Seoul, Republic of Korea, ³Myongji University, Yongin, Republic of Korea
- *CD-10 11:30 Spin Injection, Spin Transport, and Electrical Detection of Spin Precession in Mesoscopic Spin Valves**
 B. J. Van Wees, Department of Applied Physics and Materials Science Centre, Groningen, The Netherlands

TUESDAY AM

SALON G

**Session CE
 INDUCTIVE RECORDING HEADS**

Moris Dovek
 Headway Corporation, Milpitas, CA

- CE-01 9:00 High B_c CoFe Thin Films Prepared by Electrodeposition**
 Tokihiko Yokoshima, Kenta Imai, Daizo Shiga, Kyoko Takashima, Tetsuya Osaka, Waseda University, Tokyo, Japan
- CE-02 9:15 Influence of Magnetic Properties to the Magnetization Dynamics of High Resisitvty Magnetic Films**
 Jeffrey McCord¹, Johannes Paul², ¹Leibniz Institute for Solid State and Materials Research, Dresden, Germany, ²IBM Speichersysteme GmbH, Mainz, Germany
- CE-03 9:30 High Frequency Behavior of Electrodeposited FeCoNi Alloys**
 Xiaomin Liu¹, James Rantschler¹, Chester Alexander¹, Giovanni Zangari², ¹MINT center, University of Alabama, Tuscaloosa, AL, ²Dept. Materials Sci. & Eng., University of Virginia, Charlottesville, VA

- CE-04** **Effect of Lattice Strain on Soft Magnetic Properties in FeCo/NiFe(Cr) Thin Films with 2.4 T**
9:45 Takehito Shimatsu, Hiroyuki Katada, Hiroaki Muraoka, Yoshihisa Nakamura, *Research Institute of Electrical Communication, Tohoku University, Sendai, Japan*
- CE-05** **Microstructure of Soft Magnetic FeCoZrO Films with High Saturation Magnetization**
10:00 Xiangyuan Xiong, *National Institute for Materials Science, Tsukuba, Japan*
- CE-06** **Write Frequency Dependence of Power Loss in Inductive Heads**
10:15 Eunkyung Jang, *Samsung, San Jose, CA*
- CE-07** **Inductive Write Heads Using High Moment Pole Materials for Ultrahigh Areal Density Demonstrations**
10:30 Yingjian Chen, Xiaozhong Dang, Yinshi Liu, Hai Jiang, Kroum Stoev, Francis Liu, Peng Liu, James Wang, John Chen, Shan Fan Gu, Marcos Lederman, Mohamad Krounbi, Mark Re, *Read-Rite Corp., Fremont, CA*
- CE-08** **Flat Top Pole Writer Design**
10:45 Qing He, *Read-Rite Corp., Fremont, CA*
- CE-09** **Single-Pole Writer Instabilities Dependent on the Pole-Tip Geometry**
11:00 Yoshiaki Kawato, Takayuki Ichihara, Masahumi Mochizuki, Moriaki Fuyama, Kazuhiro Nakamoto, *Hitachi Ltd., Kokubunji, Japan*
- CE-10** **Evaluation of Transition Curvature in Perpendicular Magnetic Recording**
11:15 Paul A Van Der Heijden, Thomas W. Clinton, M. Fatih Erden, *Seagate Research, Pittsburgh, PA*
- CE-11** **Front Return Yoke Type CUSP Field Single-Pole Writing Head**
11:30 Kazuyuki Ise¹, Kiyoshi Yamakawa¹, Naoki Honda¹, Kazuhiro Ouchi¹, Hiroaki Muraoka², Yoshihisa Nakamura², *¹Akita Research Institute of Advanced Technology, Akita, Japan, ²RIEC, Tohoku Univ., Sendai, Japan*

TUESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session CP

TRANSFORMERS, MOTORS AND RELATED APPLICATIONS

David Jiles

Ames Laboratory, Iowa State University, Ames, IA

- CP-01** **Micro Power Supply Using Thin Film Magnetic Core**
 Eishu Sugawara, Naoki Wakou, *NEC Tokin Corporation, Sendai, Japan*

- CP-02 Model and Design of PCB Winding Parallel for Planar Transformer**
Wei Chen, *Delta Power Electronics Center, Shanghai, People's Republic of China*
- CP-03 Spiral Type Transmission-Line with A Mn-Zn Ferrite Core**
Toshiro Sato¹, Kousuke Sato¹, Kiyohito Yamasawa¹, Fuchun Zhang², Koichi Yanagisawa², ¹*Shinshu University, Nagano, Japan*, ²*Hioki Electric Corp., Ueda, Japan*
- CP-04 Effect of Grain Size on Domain Structure of Thin Non-Oriented Si-Fe Electrical Sheets**
Masaaki Takezawa¹, Yoshiyuki Wada¹, Jiro Yamasaki¹, Takashi Honda¹, Chikara Kaido², ¹*Kyushu Institute of Technology, Kitakyushu, Japan*, ²*Nippon Steel Corporation, Kitakyushu, Japan*
- CP-05 Nucleation, Selective Growth and Magnetic Induction in 3% Si-Fe Strips**
S. B. Kim, Y. S. Choi, S. S. Cho, K. H. Chai, N. H. Heo, *Korea Electric Power Research Institute, Taejeon, Republic of Korea*
- CP-06 Optimum Pole Arcs for A Switched Reluctance Motor for Higher Torque with Reduced Ripple**
N. K. Sheth, K. R. Rajagopal, *Indian Institute of Technology, New Delhi, India*
- CP-07 Analysis of Reactive Linear Synchronous Motor Transient Performance**
Liang de Liang, *Xi'an Jiaotong University, Xi'an, People's Republic of China*
- CP-08 Sensitivity Analysis of Simulations for Magnetic Particle Inspection Using Finite Element Method**
Seong-Jae Lee, *Ames Laboratory, Iowa State University, Ames, IA*
- CP-09 Material Efficiency in Magnetic Field Shielding at Low and Intermediate Frequency**
Ugo Adriano, Oriano Bottauscio, Mauro Zucca, *IEN Galileo Ferraris, Torino, Italy*
- CP-10 Humidity Effect for the Magnetic and Woody Characteristics of Powder Type Magnetic Wood**
Hideo Oka¹, Haruaki Tokuta¹, Yasuji Namizaki², Shigeo Chiba³, Noboru Sekino⁴, ¹*Electrical & Electronic Engineering, Iwate University, Morioka, Japan*, ²*Industrial Research Institute of Iwate Prefecture, Morioka, Japan*, ³*Marui Formative Furniture Co. Ltd., Iwate Pref., Japan*, ⁴*Department of Agriculture, Iwate University, Morioka, Japan*
- CP-11 A Mechanism of Magnetic Properties' Change due to Neutron Irradiation in the Ni-Cr-Mo Steel**
Duck-Gun Park, Seung-Sik Park, Eun-Ju Moon, Kee-Ok Chang, Jun-Hwa Hong, *Korea Atomic Energy Research Institute, Daejeon, Republic of Korea*

Session CQ
MAGNETIC SENSORS I

Keat Ong

SenTech Corporation, State College, PA

- CQ-01 Magnet Arrays for Use in A 3-D MEMS Mirror Array for Optical Switching**
Jonathan Bernstein, William P Taylor, John D Brazzle, Christopher J Corcoran, *Corning IntelliSense, Wilmington, MA*
- CQ-02 Fabrication of Micropump with Spiral-Type Magnetic Micro-Machine**
Aya Yamazaki, Masahico Sendoh, Kazushi Ishiyama, Ken Ichi Arai, *Research Institute of Electrical Communication, Tohoku University, Sendai, Japan*
- CQ-03 Laser-Annealing Effect on Magnetization Processes in Co-Based Amorphous Microwires**
B. S. Lee¹, Y. W. Rheem¹, S. J. Ahn², S. S. Yoon³, C. G. Kim¹, C. O. Kim¹, ¹*Department of Materials Engineering, Chungnam National University, Daejeon, Republic of Korea*, ²*Department of Physics, Sun Moon University, Asan, Republic of Korea*, ³*Department of Physics, Andong National University, Kyung-Book, Republic of Korea*
- CQ-04 3D Magnetic Tracking of A Single Subminiature Coil with A Large 2D-Array of Uniaxial Transmitters**
Anton Plotkin, Eugene Paperno, *E&CE Dept., Ben-Gurion University of the Negev, Beer-Sheva, Israel*
- CQ-05 Magnetic Means for Determination of Torsional Yield Strength**
Ivan J. Garshelis¹, Ryan J. Kari², Sami Bitar², ¹*Magnova, Inc., Pittsfield, MA*, ²*Magcanica, Inc., Pittsfield, MA*
- CQ-06 Precise Multipole Magnetization of Disc Magnet for Sensor Application**
Yuriy N Zhilichev, *Magnequench Intl, Durham, NC*
- CQ-07 Application of GMR Line Sensor to Eddy Current Testing**
Yasuhiro Kataoka¹, Hiroyuki Wakiwaka¹, Osamu Shinoura², Hikaru Yamagishi³, ¹*Shinshu University, Nagano, Japan*, ²*TDK Corporation, Ichikawa-Shi, Japan*, ³*Precision Technology Research Institute of Nagano Prefecture, Okaya, Japan*
- CQ-08 Measuring High Magnetic Fields with A U-Shaped Micro Machined Cantilever Using An Optical Readout**
Franz Keplinger, Samuel Kvasnica, Hans Hauser, *Institute for Industrial Electronics and Material Science, Vienna, Austria*
- CQ-09 Analysis and Test of A Electromagnetic Linear Position Sensor**
Aly Ferreira Flores Filho, Roberto Müller, *Federal University of Rio Grande do Sul, Porto Alegre, Brazil*

CQ-10 CoFeB/Cu Layered Film with Crossed Anisotropy for Asymmetrical Magneto-Impedance

Paul Delooze¹, Larissa V Panina¹, Desmond J Mapps¹, Kazuhiro Ueno², H. Sano², ¹*University of Plymouth, Plymouth, United Kingdom*, ²*R&D, Stanley Elect Co, Yokohama, Japan*

CQ-11 Position Detection of Brushless DC Motor Using Inductance Bridge System

Jongyong Park¹, Dennis K Lieu², ¹*Daewoo Electronics Co. Ltd., Kumpo, Republic of Korea*, ²*University of California, Berkeley, Berkeley, CA*

TUESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session CR

LEVITATION, PROPULSION AND SHIELDING

Doug Lavers

University of Toronto, Toronto, Canada

Alexander Kildishev

Purdue University, West Lafayette, IN

CR-01 Impact of Stator Integrated Magnetic Bearings on the Behaviour of A Squirrel-Cage Induction Machine

Doffe Ludovic¹, Walti Olivier², ¹*FAVI-ESIEE, Amiens, France*, ²*FAVI, Hallencourt, France*

CR-02 Design of EMS-Magnetically Levitated Vehicle with Several Modules Based on Genetic Algorithm π

Shinichi Kusagawa, Jumpei Baba, Katsuhiko Shutoh, Eisuke Masada, *Tokyo University of Science, Noda, Japan*

CR-03 The Opened-Type Magnetic Shielding

Takeshi Saito, *Kajima Technical Research Institute, Tokyo, Japan*

CR-04 Fabrication of A Repulsive Type Magnetic Bearing Using A Novel Arrangement of Permanent Magnets for Rotor Suspension

Subhas Chandra Mukhopadhyay¹, James Donaldson¹, Sotoshi Yamada², Dariusz Kacprzak³, ¹*Massey University, Palmerston North, New Zealand*, ²*Kanazawa University, Kanazawa, Japan*, ³*The University of Auckland, Auckland, New Zealand*

CR-05 Studies on the Magnetic Field Canceling System Used for the Open Ends of Cylindrical Magnetic Shields

Kenji Nagashima, Ichiro Sasada, Kunihisa Tashiro, *Kyushu University, Kasuga, Japan*

CR-06 The Analysis of Magnetic Disturbance due to Buildings

Keita Yamazaki, *Takenaka Corporation, Inzai, Japan*

CR-07 Active Shielding Suitable for Electron Beam Lithography Systems

Keita Yamazaki, *Takenaka Corporation, Inzai, Japan*

- CR-08 Fabrication of Magnetic Actuator for Use in Capsule Endoscope**
Masahiko Sendoh, Kazushi Ishiyama, Ken Ichi Arai, *RIEC, Tohoku University, Sendai, Japan*
- CR-09 Separable Cylindrical Magnetic Shield with Magnetic Shaking Enhancement**
Kunihisa Tashiro, Ichiro Sasada, *Kyushu Univ., Kasuga, Japan*
- CR-10 Levitation and Recovery Force Analysis of Controlled Linear Synchronous Motor by Using 3-D EMCN**
Gyu-Hong Kang, *Changwon National University, Changwon, Republic of Korea*
- CR-11 A Permeable Spheroidal Shield of An Almost Uniform Thickness**
Alexander V Kildishev¹, Michael A Morgan², John A Nyenhuis¹,
¹*School of ECE, Purdue University, West Lafayette, IN,*
²*Department of ECE, NPS, Monterey, CA*
- CR-12 Destruction Force Assessment of Multipoles Flat Brushless DC Machine for Distributed Power Generation System**
Jian-Long Kuo, *Chang-Gung University, Kwei-Shan, Taiwan*
- CR-13 Semi analytical study of ironless PM devices being both a coupling and an axial bearing for naval propulsion**
Fadli Naoufal¹, Jennane Jamal¹, Charpentier Jean-Frederic²,
¹*ENSEM-Casablanca, Casablanca, Morocco,* ²*IRENav (French Naval Academy), Brest-Naval, France*

TUESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

**Session CS
PERMANENT MAGNET MATERIALS**

Mei-qing Huang
UES. Inc., Dayton, OH

Hao Zeng
IBM T.J. Watson Research Center, Yorktown Heights, NY

- CS-01 Fabrication of NdFeB Thick Film Magnets by High Speed PLD Method**
Masaki Nakano¹, Ryutaro Kato¹, Hirotohi Fukunaga¹, Shinichi Tsutsumi², Fumitoshi Yamashita², ¹*Nagasaki University, Nagasaki, Japan,* ²*Matsushita Electric Industrial Co. Ltd., Daido, Japan*
- CS-02 Mössbauer and Magnetic Aftereffect Studies of Exchange Coupled PrFeB-Type Nanocomposites**
H. W Chang¹, W. C Chang¹, J. C Ho², H. H Hamdeh², X. Zhang²,
¹*National Chung Cheng University, Chia-Yi, Taiwan,* ²*Wichita State University, Wichita, KS*

- CS-03 Magnetic Properties of SmCo₇/Co and Sm(Co, Fe) γ/α -(Fe, Co) Nanocomposite Magnets Prepared by Magnetic Anneal**
 Baozhi Cui¹, Meiqing Huang², S. Liu¹, ¹*Magnetics Lab, University of Dayton, Dayton, OH, ²UES Inc., Dayton, OH*
- CS-04 Nanostructured Melt-Spun Sm(Co-Fe-Zr-B) _{7.5} Alloys for High Temperature Magnets**
 Sofoklis S. Makridis¹, George Litsardakis¹, Kostas G. Efthimiadis², George Papathanasiou³, Ioannis Panagiotopoulos⁴, Dimitris Niarchos⁵, George C. Hadjipanayis⁶, ¹*Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece, ²Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece, ³Department of Electrical and Computer Engineering, University of Xanthi, Xanthi, Greece, ⁴Department of Materials Science and Engineering, University of Ioannina, Ioannina, Greece, ⁵Institute of Materials Science, NCSR Demokritos, Athens, Greece, ⁶Department of Physics & Astronomy, University of Delaware, Newark, DE*
- CS-05 Structural and Magnetic Properties of Rhombohedral Sm₂ (Co,Fe,Cr) ₁₇B_x and Sm₂ (Co,Fe,Mn) ₁₇B_x Compounds**
 Sofoklis S. Makridis¹, George Litsardakis¹, Kostas G. Efthimiadis², George Papathanasiou³, Ioannis Panagiotopoulos⁴, Dimitris Niarchos⁵, George C. Hadjipanayis⁶, ¹*Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece, ²Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece, ³Department of Electrical and Computer Engineering, University of Xanthi, Xanthi, Greece, ⁴Department of Materials Science and Engineering, University of Ioannina, Ioannina, Greece, ⁵Institute of Materials Science, NCSR Demokritos, Athens, Greece, ⁶Department of Physics & Astronomy, University of Delaware, Newark, DE*
- CS-06 Magnetic Properties of Nanostructured TbMn₆Sn₆ Melt Spun Ribbons**
 P. C Chen, D. M Lin, W. H Chang, H. C Chiu, C. W Chang, *National Chung Cheng University, Chia-Yi, Taiwan*
- CS-07 Atomic Ordering and Magnetic Properties in the Nd₅₀Fe₄₀Al₁₀ Melt-Spun Ribbons**
 Nicoleta Lupu¹, Horia Chiriac¹, Jean-Marc Greneche², ¹*National Institute of R&D for Technical Physics, Iasi, Romania, ²Laboratoire de Physique de L'Etat Condense, Universite du Maine, Le Mans, France*
- CS-08 Local Cooling Rate Dependence of Magnetic Properties in Melt-Spun Nd₆₀Fe₃₀Al₁₀ Alloy**
 Reiko Sato-Turtelli, Djoko Triyono, Günter Wiesinger, Roland Grössinger, Herwig Michor, *Institut f. Festkörperphysik, Technical University Vienna, Vienna, Austria*
- CS-09 The Effect of Hydrogen on the Thermal Expansion and Magnetostriction in Rare-Earth Intermetallics with Iron**
 Eugenia Tereshina, Sergey Nikitin, *M. V. Lomonosov Moscow State University, Moscow, Russian Federation*

- CS-10 Field Rate Dependence Study of Magnetic Viscosity in Standard Permanent Magnets**
 Juan Carlos Téllez-Blanco, *Institute of Fundamentals and Theory of Electrotechnical Engineering, University of Technology, Vienna, Austria*
- CS-11 A New Kind of NdFeB Magnet Prepared by Spark Plasma Sintering**
 Ming Yue¹, Jiuxing Zhang¹, Yaofu Xiao², Tao Li², ¹*Beijing Polytechnic University, Beijing, People's Republic of China, ²School of Materials Science and Engineering, University of Science and Technology, Beijing, People's Republic of China*
- CS-12 Mossbauer Studies and Magnetic Properties of BaFe_{12-x}Al_xO₁₉ Grown by A Wet Chemical Process**
 Dong Hyeok Choi, Sang Won Lee, In-Bo Shim, Chul Sung Kim, *Department of Physics, Kookmin university, Seoul, Republic of Korea*
- CS-13 Directional Dependence of Magnetization and Minor Loops of Ba- AND Sr-Ferrites**
 Hans Hauser, *Vienna University of Technology, Vienna, Austria*
- CS-14 Optical and Magnetic Studies in Ni-Ti Alloy Thin Films**
 K. T. Wu¹, Y. D. Yao², W. B. Wu¹, H. Z. Liu¹, ¹*Department of Physics, Fu Jen University, Hsinchuang, Taiwan, ²Institute of Physics, Academia Sinica, Taipei, Taiwan*
- CS-15 The Coercivity in Co-Zr System Alloys**
 Tetsuji Saito, *Chiba Institute of Tehcnology, Nashino, Japan*
- CS-16 Magnetic Domain Structure of TbFe_{12-x}Ti_x Single Crystals**
 Zhenrong Zhang¹, Dejuan Zheng², Jianli Wang¹, Guangheng Wu³, Bao Shan Han¹, ¹*Institute of Physics, Chinese Academy of Science, Beijing, People's Republic of China, ²Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing, People's Republic of China, ³State Key Laboratory for Magnetism, Institute of Physics, Chinese Academy of Sciences, Beijing, People's Republic of China*
- CS-17 Development of A DC Brush Motor with 50% Weight Reduction Using MAGFINE**
 Yoshinobu Honkura, Hironari Mitarai, Yoji Hayashi, *Aichi Steel Corporation, Tokai-Shi, Japan*
- CS-18 New Preparation Method of Nd₂Fe₁₄B-Based Bonded Magnets for Efficient Small Motors**
 Akihiko Watanabe¹, Fumitoshi Yamashita¹, Hirotooshi Fukunaga², ¹*Matsushita Electric, Osaka, Japan, ²Nagasaki University, Nagasaki, Japan*
- CS-19 The Annealing Temperature Dependence of Magnetic Properties in Sr-ferrite Nanoparticles**
 Sang Won Lee, Chul Sung Kim, In-Bo Shim, *Dept. of Physics, Kookmin University, Seoul, Republic of Korea*

Session CT
MAGNETIC SEMICONDUCTORS

Geoff Childress
IBM Almaden, San Jose, CA

- CT-01 Control of Magnetic Features in Epitaxial Micro-Patterned (Ga,Mn)As Wire Structures**
Kouhei Hamaya¹, Rai Moriya², Akira Oiwa², Tomoyasu Taniyama¹, Yoshitaka Kitamoto¹, Hiroo Munekata², ¹*Department of Innovative and Engineered Materials, Tokyo Institute of Technology, Yokohama, Japan*, ²*Imaging Science and Engineering Laboratory, Tokyo Institute of Technology, Yokohama, Japan*
- CT-02 Room Temperature Ferromagnetism of Manganese Doped Rutile Titanium Dioxide Thin Films**
Zhenjun Wang¹, Vladimir Golub², Le Duc Tung², Leonard Spinu², Jinke Tang¹, ¹*Department of Physics, University of New Orleans, New Orleans, LA*, ²*Advanced Materials Research Institute, University of New Orleans, New Orleans, LA*
- CT-03 Optical and Magnetic Properties of Laser-Deposited Semiconducting Zn_{1-x}Co_xO Thin Films**
Jae Hyun Kim¹, Byung Sun Lee², Hyojin Kim², Dojin Kim², Youngeon Ihm², Woong Kil Choo¹, ¹*Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea*, ²*Chungnam National University, Daejeon, Republic of Korea*
- CT-04 Mossbauer Studies of ⁵⁷Fe-Doped Anatase TiO₂**
Hi Min Lee, In-Bo Shim, Chul Sung Kim, *Kookmin University, Seoul, Republic of Korea*
- CT-05 Magnetic Properties of Nanophase Mn-Doped PbSe**
Tianhao Ji, Jiye Fang, Charles J. O'Connor, Vladimir Golub, Jinke Tang, *University of New Orleans, New Orleans, LA*
- CT-06 Magnetotransport in An n-Type Diluted Magnetic Semiconductor: (Ga, Mn)_n**
K. I. Lee¹, M. H. Ham², J. M. Lee¹, J. Y. Chang¹, J. M. Myoung², S. H. Han¹, W. Y. Lee¹, ¹*Korea Institute of Science and Technology, Seoul, Republic of Korea*, ²*Yonsei University, Seoul, Republic of Korea*
- CT-07 Electrical Spin Injection and Band Offsets in An n-Type Ferromagnetic Semiconductor Heterostructure: n-CdCr₂Se₄ / AlGaAs / GaAs**
B. T. Jonker¹, A. T. Hanbicki¹, G. Kioseoglou¹, C. H. Li¹, R. M. Stroud¹, J. M. Sullivan¹, S. C. Erwin¹, G. Luepke², H. B. Zhao², Y. H. Ren², B. Sun², G. Itskos³, R. Mallory³, M. Yasar³, A. Petrou³, ¹*Naval Research Laboratory, Washington, DC*, ²*College of William and Mary, Williamsburg, VA*, ³*SUNY at Buffalo, Buffalo, NY*

Session DA

MAGNETOELASTICITY AND SHAPE MEMORY ALLOYS

Sang Ho Lim

Korea Institute of Science and Technology, Seoul, Republic of Korea

- *DA-01** **Ferromagnetic Shape Memory Alloys: Where Might They Be Useful?**
2:00 R. C. O'Handley, C. P. Henry, M. Marioni, M. Richard, J. Feuchtwanger, B. Peterson, D. Bono, J. K. Huang, D. I. Paul, S. M. Allen, *Massachusetts Institute of Technology, Cambridge, MA*
- *DA-02** **New Ferromagnetic Heusler Alloys**
2:30 G. H. Wu, Z. H. Liu, M. Zhang, *State Key Laboratory for Magnetism, Institute of Physics, Chinese Academy of Sciences, Beijing, People's Republic of China*
- DA-03** **Modeling of Temperature Dependent Magnetic and Mechanical Properties of Ni₂MnGa Single Crystals**
3:00 Massimo Pasquale¹, Carlo Paolo Sasso¹, Giorgio Bertotti¹, Victor L'vov², Volodymyr Chernenko³, ¹*IEN Galileo Ferraris, Torino, Italy*, ²*Taras Shevchenko University, Kiev, Ukraine*, ³*Institute of Magnetism, Kiev, Ukraine*
- DA-04** **Superelastic Response of Ni-Mn-Ga in Magnetic Field and Simple Model**
3:15 Ladislav Straka, Oleg Heczko, *Helsinki University of Technology, Espoo, Finland*
- DA-05** **Structure and Phase Transformation of Ferromagnetic Shape Memory Alloy Ni₄₉Mn₃₀Ga₂₁ Fine Particles Prepared by Spark Erosion**
3:30 Yunjun Tang¹, David J. Smith², Fred E. Spada¹, Howard Harper¹, Ami E. Berkowitz¹, ¹*CMRR, UCSD, La Jolla, CA*, ²*Dept. of Physics and Astronomy and Center for Solid State Science, Arizona State University, Tempe, AZ*
- DA-06** **Magnetomechanical Behavior of Co-Ferrite Composites for Sensors and Transducers**
3:45 Massimo Pasquale¹, Carlo Paolo Sasso¹, Sang Ho Lim², ¹*IEN Galileo Ferraris, Torino, Italy*, ²*KIST NDRC, Seoul, Republic of Korea*
- DA-07** **Magnetomechanical Damping Capacity of Tb_xDy_{1-x}Fe_{1.92} Alloys (0.33 < x < 0.50)**
4:00 Marilyn Wun-Fogle¹, James B. Restorff¹, Arthur E. Clark², Jonathan D. Snodgrass³, ¹*Carderock Division, Naval Surface Warfare Center, West Bethesda, MD*, ²*Clark Associates, Adelphi, MD*, ³*ETREMA Products, Ames, IA*
- DA-08** **Strain-Induced Resistance Changes in CoFe/Cu GMR Multilayers**
4:15 Sylvia Helena Florez, R. D. Gomez, *University of Maryland, College Park, MD*

**DA-09 Magnetically-Soft Higher-Order Harmonic Stress and
4:30 Temperature Sensors**

Keat Ghee Ong, *SenTech Corporation, State College, PA*

**DA-10 Experimental and Modeling Studies of the Effects of Shear
4:45 Stress on Magnetization in Nickel**

Jason A. Paulsen, Chester C. H. Lo, John E. Snyder, Andrew P. Ring, Yuping Shen, David C. Jiles, *Ames Laboratory, Iowa State University, Ames, IA*

TUESDAY PM

SALON H/I/J

Session DB

Sm-Co AND OTHER PERMANENT MAGNET COMPOUNDS

Ralph Skomski

University of Nebraska, Lincoln, NE

**DB-01 Structure and Magnetic Properties of $\text{Sm}(\text{Co}_{0.9}\text{Fe}_{1-x}\text{Zr}_{0.05}\text{Cu}_{0.08}\text{Ga}_y\text{B}_z)_{12}$ Alloys and Their Melt-Spun Materials
2:00 ($x=0.1-0.4$, $y=0-0.01$, $z=0.01-0.02$)**

Meiqing Huang¹, Zafer Turgut¹, Ben Smith², Zhongmin Chen², Bao-Min Ma², Shaoyan Chu³, John Horwath⁴, Richard Fingers⁴, ¹*UES Inc., Dayton, OH*, ²*Magnequench Technology Center, Durham, NC*, ³*Carnegie Mellon University, Pittsburgh, PA*, ⁴*Air Force Research Lab, Dayton, OH*

DB-02 Magnetic Domain Structure in SmCo 2:17 Permanent Magnets

2:15 Yong Zhang¹, Wei Tang¹, George C Hadjipanayis¹, Christina H Chen², Dagmar S Goll³, Helmut Kronmuller³, ¹*University of Delaware, Newark, DE*, ²*Electron Energy Corporation, Landisville, PA*, ³*Max-Planck-Institut Fur Metallforschung, Stuttgart, Germany*

***DB-03 Atom Probe Study of the Microstructure of Sintered
2:30 $\text{Sm}(\text{Co}_{0.72}\text{Fe}_{0.20}\text{Cu}_{0.055}\text{Zr}_{0.025})_{7.5}$ Permanent Magnet**

Xianqyuan Xiong¹, Kazuhiro Hono¹, Ken Ohashi², ¹*National Institute for Material Science, Tsukuba, Japan*, ²*Shin-Etsu Chemical Co., Takefu, Japan*

**DB-04 Exchange Interactions and Curie Temperature of Y-Co
3:00 Compounds**

Arti Kashyap, *Center for Materials Research and Analysis, Lincoln, NE*

DB-05 Rare Earth Substitutions in M-Type Ferrites

3:15 Roland Grössinger, *Inst. f. Festkörperphysik, T.U.Vienna, Vienna, Austria*

**DB-06 Magnetic Properties of Hard FePt Prepared by Cold
3:30 Deformation**

Nguyen Hoang Hai, Nora M. Dempsey, Dominique Givord, *Lab. Louis Neel, CNRS, Grenoble, France*

DB-07 Finite-Temperature Anisotropy of PtCo Magnets

3:45 R. Skomski, Arti Kashyap, D. J. Sellmyer, *University of Nebraska, Lincoln, NE*

- DB-08** **Reduction of FePt Ordering Temperature by Cu Underlayer on Si**
4:00 Chih-Huang Lai, Ta-Kang Tseng, *Dartment of Materials Science & Engineering, National Tsing Hua University, Hsinchu, Taiwan*
- DB-09** **Micromagnetic Simulation of Pinning and Depinning Processes in Permanent Magnets**
4:15 Werner Scholz, Thomas Schrefl, Josef Fidler, Thorsten Matthias, Dieter Suess, Vassilios Tsiantos, *Vienna University of Technology, Vienna, Austria*
- DB-10** **Stabilitiy of Magnetic Properties of 2:17-Type SmCo Magnets at Operating Temperatures Larger Than 400°C**
4:30 Oliver Gutfleisch¹, Gerhard Martinek², Aru Yan¹, Axel Handstein¹, Karl-Hartmut Müller¹, Ludwig Schultz¹, ¹*Leibniz Institute of Solid State and Materials Research, Dresden, Germany*, ²*Magnequench AG, Lupfig, Switzerland*
- DB-11** **Relaxation Studies at High Temperatures of Precipitation Hardened Sm(Co_{bal}Fe_{0.1}Cu_{0.12}Zr_{0.04})_{7.5} Magnet**
4:45 Sofoklis S. Makridis¹, George Litsardakis¹, Ioannis Panagiotopoulos², Dimitrios Niarchos³, Dominique Givord⁴, ¹*Dept. of Electrical & Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece*, ²*Dept. of Materials Science & Engineering, University of Ioannina, Ioannina, Greece*, ³*Institute of Materials Science, NCSR Demokritos, Ag.Paraskevi, Greece*, ⁴*Lab. Louis Neel, CNRS, Grenoble, France*

TUESDAY PM

SALON E

Session DC

SYMPOSIUM: NANOSTRUCTURES: CHARACTERIZATION TECHNIQUES AND INSIGHTS

M.E. Hawley

Los Alamos National Laboratory, Los Alamos, NM

- *DC-02** **In-Situ Lorentz Microscopy of Magnetic Nanostructures**
2:00 Stephen McVitie, *University of Glasgow, Glasgow, United Kingdom*
- *DC-03** **Imaging, Manipulation, and Spectroscopic Measurement of Nanomagnets by Magnetic Force Microscopy**
2:30 Xiaobin Zhu¹, Peter Grutter¹, Vitali Metlushko², Yaowu Hao³, Fernando J Castano³, Caroline A Ross³, Bojan Ilic⁴, Henry I Smith³, ¹*McGill University, Montreal, Canada*, ²*University of Illinois at Chicago, Chicago, IL*, ³*Massachusetts Institute of Technology, Cambridge, MA*, ⁴*Cornell University, Ithaca, NY*
- *DC-04** **Characterization of Magnetic Nanostructures Using Synchrotron Based Techniques**
3:00 Chi-Chang Kao, T.O. Menteş, C. Sánchez-Hanke, E. Vescovo, *National Synchrotron Light Source, Brookhaven National Lab., Upton, NY*

***DC-05** **The Application of Three-Dimensional Atom Probe Analysis to GMR Materials**
3:30 Amanda Petford-Long¹, David Larson², Alfred Cerezo¹, ¹*Dept of Materials, University of Oxford, Oxford, United Kingdom*, ²*RHO Seagate Technology, Bloomington*

***DC-06** **Time-Resolved Wide-Field Kerr Microscopy**
4:00 Dmitry Chumakov, Jeffrey McCord, Rudolf Schäfer, Ludwig Schultz, *Leibniz Institute for Solid State and Materials Research, Dresden, Germany*

TUESDAY PM

SALON F

Session DD
GMR HEADS

H.S. Gill
IBM Corporation, San Jose, CA

***DD-01** **Synthetic Antiferromagnetic Exchange Tab GMR Heads with PtMn Tab Recessed From the Track Edges**
2:00 Naoya Hasegawa, Eiji Umetsu, Ryo Nakabayashi, Masahiro Ohshima, Kazumi Matsuzaka, Kenji Honda, Naohiro Ishibashi, Shinji Saitoh, Yukie Ichinohe, Rika Ikeda, Akira Takahashi, *Alps Electric Co., Ltd., Nagaoka, Japan*

DD-02 **Understanding Thermal Magnetic Noise Spectra of Spin Valve Heads**
2:30 Jian-Gang Zhu, Yuchen Zhou, Nayoung Kim, *Carnegie Mellon University, Pittsburgh, PA*

DD-03 **High Frequency Measurements of Spin Valve Recording Heads**
2:45 Stephen E. Russek¹, Pavel Kabos¹, Bill Cross², ¹*NIST, Boulder, CO*, ²*Maxtor, Longmont, CO*

***DD-04** **Current-Perpendicular Spin-Valves with Partially Oxidized Magnetic Layers for Ultrahigh-Density Magnetic Recording**
3:00 Hirotaka Oshima, Keiichi Nagasaka, Yoshihiko Seyama, Reiko Kondo, Yutaka Shimizu, Atsushi Tanaka, *Fujitsu Laboratories Ltd., Atsugi, Japan*

DD-05 **DET Performance of Narrow Track CPP-GMR Heads**
3:30 Masamichi Saito, Naoya Hasegawa, Yoshihiro Nishiyama, Yosuke Ide, Yasuo Hayakawa, Yukie Ichinohe, Rika Ikeda, Akira Takahashi, *Alps Electric Co., Ltd., Nagaoka, Japan*

DD-06 **Spin-Valves with A Hard/Ru/Soft Synthetic Longitudinal Bias**
3:45 Yihong Wu¹, Yuankai Zheng², ¹*Department of Electrical Engineering, National University of Singapore, and Data Storage Institute, Singapore, Singapore*, ²*Data Storage Institute, Singapore, Singapore*

DD-07 **Extendability of CIP Spin-Valve Sensors to Narrow Dimensions**
4:00 Jordan A Katine¹, Michael K Ho¹, Charles T Rettner¹, Charles T Black², ¹*IBM Almaden Research Center, San Jose, CA*, ²*IBM T. J. Watson Research Center, Yorktown Heights, NY*

DD-08 Etching of Spin Valve Capping Layers for Sensor Stabilization Applications
4:15

Wipul Jayasekara¹, Sue Zhang¹, Daniele Mauri¹, Son Nguyen², Thomas Shatz¹, Adrian Devasahayam³, Jinsong Wang³, ¹IBM, San Jose, CA, ²Applied Materials, Santa Clara, CA, ³Veeco Instruments, Plainview, NY

DD-09 Influence of Weak Magnetic Out-of-Plane Anisotropy in Magnetic Shields on Recording Head Instability Parameters
4:30

Jeffrey McCord¹, Howard Zolla², Hubert Grimm³, ¹Leibniz Institute for Solid State and Materials Research, Dresden, Germany, ²IBM Corp., San Jose, CA, ³IBM Speichersysteme GmbH, Mainz, Germany

DD-10 Free Layer Uniaxial Anisotropy Angular Dispersion Measurement of Spin Valve Films
4:45

Satoshi Shigematsu¹, Takao Imagawa¹, Katsumi Hoshino², ¹Data Storage & Retrieval Systems Division, Hitachi, Ltd., Odawara, Japan, ²Central Research Laboratory, Hitachi, Ltd., Odawara, Japan

TUESDAY PM

SALON G

Session DE
PERPENDICULAR MEDIA II

Tom Nolan
Seagate Technology, Fremont, CA

***DE-01 Anti-Ferromagnetically Coupled Perpendicular Recording Media**
2:00

Erol Girt, Hans J Richter, *Seagate Technology, Fremont, CA*

DE-02 CoB/Pd Multilayer with PtB/Pd/MgO Intermediate Layer for Perpendicular Magnetic Recording
2:30

Hiroyuki Nakagawa, Ikuko Takakuma, Hiroaki Nemoto, Yoshio Takahashi, Yoshiyuki Hirayama, Yasutaka Nishida, Yuzuru Hosoe, *Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan*

DE-03 Microstructure and Segregation Effect of Co/Pd Multilayer Perpendicular Magnetic Recording Media
2:45

Satoshi Matsunuma, Akira Yano, Tetsunori Koda, Tsuyoshi Onuma, Enji Fujita, *Hitachi Maxell, Yawara, Japan*

DE-04 Angle Dependent Switching of Granular and Multilayer Perpendicular Media
3:00

Kevin R Coffey¹, Thomas Thomson², Jan-Ulrich Thiele², ¹University of Central Florida, Orlando, FL, ²IBM Almaden Research Center, San Jose, CA

DE-05 High Perpendicular Magnetic Anisotropy of FePt-Ag Composite Film Onto Amorphous Substrate
3:15

Kyongha Kang, Zhengang Zhang, Takao Suzuki, *ISML, Toyota Technological Institute, Nagoya, Japan*

- DE-06** **Carbon Doped FePt Perpendicular Thin-Film for Ultra-High Density Magnetic Recording Media**
3:30
 Perumal Alagarsamy, Hyun-Seok Ko, Sung-Chul Shin, *KAIST, Taejeon, Republic of Korea*
- DE-07** **Preparation of Nanostructured L10 Fe-Pt Based Perpendicular Recording Media**
3:45
 Toshio Suzuki, *Akita Research Institute of Advanced Technology, Akita, Japan*
- DE-08** **Ordering Intermetallic Alloys by Ion Irradiation: A New Way to Tailor Magnetic Media**
4:00
 Dafine Ravelosona¹, José Luis Menendez¹, Jean-Philippe Attane², Harry Bernas³, D. Halley², K.-H. Heinig⁴, Alain Marty², P. Auric², Claude Chappert¹, Yves Samson², ¹*Institut d'Electronique Fondamentale, Orsay, France*, ²*CEA Grenoble, Grenoble, France*, ³*Centre de Spectrometrie Nucleaire et de Spectrometrie de Masse, Orsay, France*, ⁴*FZ-Rossendorf, Dresden, Germany*
- DE-09** **Patterned Perpendicular and Longitudinal Media**
4:15
 Manfred Albrecht¹, Shrikant Ganesan², Charles T. Rettner¹, Andreas Moser¹, Margaret E. Best¹, Robert L. White², Bruce D. Terris¹, ¹*IBM Almaden Research Center, San Jose, CA*, ²*Stanford University, Stanford, CA*
- DE-10** **Micromagnetic Modeling of Discrete Patterned Perpendicular Media**
4:30
 Susumu Haratani, *TDK Corporation, Saku, Japan*
- DE-11** **FeRh/FePt Anti-Ferromagnet/Ferromagnet Exchange Spring Media for Thermally Assisted Magnetic Recording**
4:45
 Jan-Ulrich Thiele, Stefan Maat, Eric Fullerton, *IBM Almaden Research Center, San Jose, CA*

TUESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

Session DP

MICROMAGNETIC AND HYSTERESIS MODELING

Claudio Serpico

University of Naples, Naples, Italy

Luis López Díaz

Universidad de Salamanca, Salamanca, Spain

- DP-01** **Influence of Gyromagnetic Term and Temperature on Switching Time of A Single-Domain Particle**
 Hiroshi Fukushima¹, Yasutaro Uesaka², Yoshinobu Nakatani³, Nobuo Hayashi³, ¹*Chiba-Shi, Japan*, ²*Nihon University, Koriyama, Japan*, ³*University of Electro-Communications, Tokyo, Japan*
- DP-02** **Temperature Dependence of Spontaneous Magnetization Using A Continuous Model**
 Eduardo Martinez¹, Luis Lopez-Diaz¹, Luis Torres¹, Oscar Alejos², ¹*Universidad de Salamanca, Salamanca, Spain*, ²*Universidad de Valladolid, Valladolid, Spain*

- DP-03 Switching Mechanism in Ring-Shaped Pseudo-Spin Valves**
N. Dao, S. L. Whittenburg, *Department of Chemistry/AMRI, University of New Orleans, New Orleans, LA*
- DP-04 Magnetization Reversal Under Non-Uniform Magnetic Fields**
Kyoung Suk Kim¹, Sangho Lim², ¹*Korea University, Seoul, Republic of Korea*, ²*KIST, Seoul, Republic of Korea*
- DP-05 Effects of Element Dimension and Grain Number on Micromagnetic Simulation for Nanocrystalline Nd-Fe-B Magnet**
Su Fen Zhao¹, Han Min Jin², Bao Shan Han¹, Xu Feng Han¹, ¹*Institute of Physics, Chinese Academy of Sciences, Beijing, People's Republic of China*, ²*Department of Physics, Jilin University, Chengchun, People's Republic of China*
- DP-06 Modeling Microstructural Effects on Hysteresis Loops with the Same Maximum Magnetic Flux Density**
Martin J. Sablik¹, Fernando J. G. Landgraf², ¹*Southwest Research Institute, San Antonio*, ²*Institute for Technological Research, IPT, Sao Paulo, Brazil*
- DP-07 Modeling of Magnetic Hysteresis Using Counter Propagation Neural Network**
Esmael Fallah, Javad shokrollahi Moghani, H Talebi, *Amirkabir University of Technology, Tehran, Iran*
- DP-08 Experimental Evaluation of the Preisach Distribution for Magnetic Recording Media**
Petronel Postolache, Mihai Cerchez, Laurentiu Stoleriu, Alexandru Stancu, *Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania*
- DP-09 Limits of the Preisach Model for Strongly Correlated Particulate Magnetic Media**
Mihai Cerchez¹, Alexandru Stancu¹, Laurentiu Stoleriu¹, Philip Raymond Bissell², ¹*Alexandru Ioan Cuza University, Iasi, Romania*, ²*University of Central Lancashire, Preston, United Kingdom*
- DP-10 A New Vector Model of Magnetic Hysteresis Based on A Novel Class of Play Hysterons**
Claudio Serpico¹, Massimiliano d'Aquino¹, Ciro Visone², Amr A. Adly³, ¹*University of Naples, Naples, Italy*, ²*University of Sannio, Benevento, Italy*, ³*Cairo University, Cairo, Egypt*
- DP-11 Dynamic Approximation of Rectangular Loops and Aftereffect**
Can Korman, *The George Washington University, Washington, DC*
- DP-12 A Study on Hysteresis Analysis of Line Start Permanent Magnet Motor Using Preisach Modeling**
Sol Kim, Seong-Yeop Lim, Seung-Bin Lim, Jae-Hak Choi, Ju Lee, *Hanyang University, Seoul, Republic of Korea*

DP-13 Ferroresonance Circuit Analysis Exhibiting Chaotic Phenomenon by Chua-Type Magnetization Model

Hisashi Endo¹, Iliana Marinova², Seiji Hayano¹, Yoshifuru Saito¹,
¹Hosei University, Tokyo, Japan, ²Technical University of Sofia,
Sofia, Bulgaria

DP-14 Bose-Einstein Condensation of Magnons in Slow Dynamics

Lawrence H. Bennett, Edward Della Torre, *George Washington University, Ashburn*

DP-15 Modeling Stability of Trapped Ferromagnetic Nanoparticle Chains

Ondrej Hovorka, Benjamin Yellen, Gary Friedman, *Drexel University, Philadelphia, PA*

TUESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

**Session DQ
MAGNETIC READ HEADS**

Sandra Sankar
Read-Rite, Fremont, CA

DQ-01 A GMR Head for Helical-Scan Recording with A 5000 Hour Head Life

Kurt Hallamasek¹, Mike R. Boots¹, Bernard Viala², Frederic Souchon³, Marie Panabiere³, ¹Ampex, Redwood City, CA, ²CEA-LETI, Grenoble, France, ³Alditech, Grenoble, France

DQ-02 Contact Noise in MR Read Sensors for Ultra-High Density Flexible Media Applications

Mark Lee Watson, Kevin D McKinstry, Steven C Arnold, *Storage Technology Corporation, Louisville, CO*

DQ-03 Lifetime Predictions due to Electromigration Failure in Tape Heads

Robert A. Johnson, *Quantum Corporation, Shrewsbury, MA*

DQ-04 Applying Amorphous CoNbZr Shield to Improve the Dielectric-Breakdown Voltages of the Gap Layers of Narrow-Gap Read Heads

Katsumi Hoshino, Shiroyasu Odai, Masahiko Hatatani, *Hitachi, Ltd., Odawara-Shi, Japan*

DQ-05 Degradation in Magnetoresistive Sensors by Short Pulse Zapping

Hae Seok Cho, Scott Stokes, Eric Granstrom, Clifton Chang, Sining Mao, Ned Tabat, *Seagate Technology, Minneapolis, MN*

DQ-06 Vertical GMR Recording Heads

Sining Mao, Lei Wang, Chunhong Hou, Ed Murdock, *Seagate, Minneapolis, MN*

DQ-07 Analysis on Giant Magnetoresistive Characteristics of Synthetic Antiferromagnet-Based Spin-Valves with Modified Pinned Layers

Jeong-Suk Park, Seong-Rae Lee, Young Keun Kim, *Korea University, Seoul, Republic of Korea*

DQ-08 Optimization of Permanent Magnet Stabilization for Balanced Sensitivities and Variations of Spin Valve Heads

Lei Wang, Jim Giusti, Juan Fernandez-De-Castro, *Seagate Technology, Bloomington, MN*

DQ-09 Adjacent Multi-Channel Head in Helical-Scan Tape Systems

Tadashi Ozue, *Sony Corporation, Yokohama, Japan*

DQ-10 FEM Analysis of Single Pole Head for 1 TBPSI Recording

Yasushi Kanai¹, Ryo Matsubara¹, Hiroaki Muraoka², Yoshihisa Nakamura², ¹*Niigata Institute of Technology, Kashiwazaki, Japan*, ²*RIEC, Tohoku University, Sendai, Japan*

DQ-11 Asymmetric Focused-Ion-Beam Trimming of Longitudinal and Perpendicular Write Heads

Thomas W Clinton¹, Zhenyong Z Zhang², Yong Chang Y Feng², Paul A Van Der Heijden¹, ¹*Seagate Research, Pittsburgh, PA*, ²*Seagate Technology, Fremont, CA*

DQ-12 Analysis of A Shielded Writer for Perpendicular Recording

Dmitri Litvinov¹, Joshua M. Schare², Earl Johns¹, Robert Rottmayer¹, James A. Bain², J. Kent Howard¹, Sakhrat Khizroev¹, ¹*Seagate Research, Pittsburgh, PA*, ²*Carnegie Mellon University, Pittsburgh, PA*

TUESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

**Session DR
PERPENDICULAR MEDIA III**

Yoichiro Tanaka
Toshiba, Tokyo, Japan

DR-01 Micromagnetics of Hysteresis Loops in CGC Media

Andrew Marc Goodman¹, Simon John Greaves¹, Hiroaki Muraoka¹, Yoshiaki Sonobe², Yoshihisa Nakamura¹, ¹*RIEC, Tohoku University, Sendai, Japan*, ²*IBM Almaden Research Center, San Jose, CA*

DR-02 Effects of Spike Noise on Read/Write Performance of Double Layered Perpendicular Media

Atsushi Kikukawa, Kiwamu Tanahashi, Reiko Arai, *CRL Hitachi Ltd., Tokyo, Japan*

DR-03 Switching Dynamics of Tilted Media

Jim Miles, David McKirdy, *University of Manchester, Manchester, United Kingdom*

- DR-04 Writing Process on A Permeable Recording Layer: A Fundamental Issue in Perpendicular Recording**
Shaoping Li, Lei Wang, Juan Fernandez-De-Castro, *Seagate Technology LLC, Bloomington, MN*
- DR-05 3-D Write Field and Imaging From Multilayered Soft Films in Perpendicular Recording Media**
James E. Monson¹, Thomas M. Coughlin², ¹*Harvey Mudd College, Point Reyes Station, CA*, ²*Coughlin Associates, San Jose, CA*
- DR-07 Characterization of Effective Anisotropy Angular Dispersion in Perpendicular Media**
Xiaowei Wu, Hong Zhou, R. J. M. Van De Veerdonk, T. Klemmer, Bin Lu, *Seagate Technology, Pittsburgh, PA*
- DR-08 Formation of Magnetic Cluster and Remanence Coercivity in Granular-Type Perpendicular Recording Media**
Takehito Shimatsu¹, Tadaaki Oikawa², Yuuki Inaba¹, Hiroaki Muraoka¹, Yoshihisa Nakamura¹, ¹*Research Institute of Electrical Communication, Tohoku University, Sendai, Japan*, ²*Fuji Electric Corporate Research and Development, Ltd., Matsumoto, Japan*
- DR-09 Soft Magnetic Underlayer with Multilayer Structure for Perpendicular Magnetic Recording Media**
Sok-Hyun Kong, Takeshi Okamoto, Shigeki Nakagawa, *Tokyo Institute of Technology, Tokyo, Japan*
- DR-10 Exchange Coupling Optimization on CoPtCrO Perpendicular Media**
Yoshihiro Ikeda, Kentaro Takano, Supper Natacha, Hoa Do, Yoshiaki Sonobe, Byron Lengsfeld, *IBM Almaden Research Center, San Jose, CA*
- DR-11 Ultra Thin Amorphous Si Seedlayer for Co-Cr-Ta Perpendicular Magnetic Recording Layer**
Yong Jin Kim¹, Won Hyo Park², Sok-Hyun Kong¹, Shigeki Nakagawa¹, Kyung Hwan Kim², ¹*Tokyo Institute of Technology, Tokyo, Japan*, ²*Kyungwon University, Songnam, Republic of Korea*
- DR-12 Determination of Activation Volumes in Perpendicular Media**
James David Dutson¹, Kevin O'Grady¹, Yukiko Kubota², Bin Lu², Christopher Platt², ¹*University of York, York, United Kingdom*, ²*Seagate Research, Pittsburgh, PA*

TUESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

**Session DS
PARTICULATE MEDIA & ME TAPE**

Takao Suzuki

Toyota Technological Institute, Nagoya, Japan

- DS-01 Effect of Surface Resistance of Metal Evaporated Tape on Discharging Current**
Yutaka Soda¹, Hiroaki Ono², Tadashi Ozue¹, ¹*Sony Corporation, Yokohama, Japan*, ²*Sony Corporation, Tagajo, Japan*

- DS-02 Thickness and Oxidation Dependence of Magnetic Properties of Ultra-Thin Obliquely Evaporated Co-CoO Media**
Kazunari Motohashi, Seiichi Onodera, *Sony Corporation, Tagajoshi, Japan*
- DS-03 Analysis of Side Writing Asymmetry**
Adrian Hozoi¹, J. P. J. Groenland¹, J. B. Albertini², J. C. Lodder¹,
¹*University of Twente, Enschede, The Netherlands*, ²*Alditech, Grenoble, France*
- DS-04 Use of Room Temperature Bias Sputtering to Decrease Intergranular Coupling in Magnetic Media Deposited on Polymeric Substrates**
Hwan-Soo Lee, James A. Bain, David E. Laughlin, *Carnegie Mellon University, Pittsburgh, PA*
- DS-05 Transverse Susceptibility in High Density Recording Media by Using A Torque Method**
Cristian Papusoi, Takao Suzuki, *Toyota Technological Institute, Nagoya, Japan*
- DS-06 Magnetic Properties of Nano-Scale FePtCr-SiN Thin Films**
A. C. Sun, P. C. Kuo, S. C. Chen, C. C. Chiang, *Institute of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan*
- DS-07 Enhancement of Grain Isolation by Interdiffusion in AFC Media with CrMo Spacer Layer**
Y. W. Tahk¹, S. C. Oh¹, S. Y. Hong², H. J. Lee², T. D. Lee¹,
¹*KAIST, Taejeon, Republic of Korea*, ²*Samsung Information Systems America, San Jose, CA*
- DS-08 SNR and Ku/kT Improvement Using CoCrTa/Ru/CoCrPtTaB/CoCrTaB AFC Media**
Jack J. K. Chang, Shing-An Chen, *Trace Storage Technology Corp., Hsinchu, Taiwan*
- DS-09 Effect of Ru Interlayer on the Crystallographic Texture of AFC Media**
Helen Laidler, M. A. Gonzalez-Fernandez, M. S. Beal, *The University of York, York, United Kingdom*
- DS-10 Lattice Matching Consideration in Pseudo-AFC Structure**
Shing-An Chen¹, Jack J. K. Chang¹, Chin-Huang Lai², ¹*Trace Storage Technology Corp., Hsinchu, Taiwan*, ²*Department of Material Science and Engineering, National Taing-Hua University, Hsinchu, Taiwan*

Session DT
CHANNELS, CODING AND SERVO

Rob Lynch

Seagate Technology, Fremont, CA

Bruce Wilson

IBM Almaden Research Center, San Jose, CA

- DT-01 Adaptive PRML Detection for Improving Offtrack BER**
Charles Sobey, *University of California, Santa Barbara, Plano, TX*
- DT-02 Convergence Analysis of Iterative Soft Decoded Magnetic Recording**
Hongwei Song, Jingfeng Liu, Vijayakumar Bhagavatula, *Carnegie Mellon University, Pittsburgh, PA*
- DT-03 Optimal (MAP) Soft-Output Detector for Channels with Intersymbol Interference and Timing Recovery Errors**
Wei Zeng, Aleksandar Kavcic, *Division of Engineering and Applied Sciences, Harvard University, Cambridge, MA*
- DT-04 Timing Acquisition for Low-SNR Data Storage Channels**
Jingfeng Liu, Hongwei Song, Vijayakumar Bhagavatula, *Data Storage Systems Center, Carnegie Mellon University, Pittsburgh, PA*
- DT-05 A Noise-Predictive Partial Response Decision-Feedback Equalizer for RLL(1,x) Coded Perpendicular Magnetic Recording Channels**
Choongchae Woo, Hangyu Cho, Daesik Hong, *Information and Telecommunication Lab., Yonsei Univ., Seoul, Republic of Korea*
- DT-06 Oversampled Timing Recovery for Magnetic Recording Channels**
Piya Kovintavewat¹, M. Fatih Erden², Erozan Kurtas², John R. Barry¹, ¹*Georgia Institute of Technology, Atlanta, GA*, ²*Seagate Technology, Pittsburgh, PA*
- DT-07 Read Channels for Pre-Patterned Media, with Trench Playback**
Gordon F. Hughes, *CMRR, UCSD, La Jolla, CA*
- DT-08 Performance Analysis of Soft-Output Post-Processing Detection for Data-Dependent Media Noise Channels**
Hideki Sawaguchi¹, Takeshi Nakagawa¹, Morishi Izumita², ¹*Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan*, ²*Data Storage Division, Hitachi, Ltd., Odawara, Japan*
- DT-09 A Systematic Construction of Capacity-Achieving Irregular Low-Density Parity-Check Codes**
Sundararajan Sankaranarayanan¹, Bane Vasic¹, Erozan Kurtas², ¹*University of Arizona, Tucson, AZ*, ²*Seagate Technology, Pittsburgh, PA*

- DT-10 Performance of Low Density Parity Check (LDPC) Codes on High-Density Magnetic Tape Recording Signals**
Shilpi Sahu, Hongwei Song, Vijayakumar Bhagavatula, *Carnegie Mellon University, Pittsburgh, PA*
- DT-11 Turbo Like Decoding of LDPC Codes**
Jin Lu, José M. F. Moura, *Carnegie Mellon University, Pittsburgh, PA*
- DT-12 Concatenated Low Density Parity Check (LDPC) Codes for Magnetic Recording Channels**
Hongwei Song, Jingfeng Liu, Vijayakumar Bhagavatula, *Data Storage Systems Center, Carnegie Mellon University, Pittsburgh, PA*
- DT-13 A Study of Turbo Coding and Decoding Using AR Channel Model**
Yasuaki Nakamura¹, Yoshihiro Okamoto¹, Hisashi Osawa¹, Hidetoshi Saito², Hiroaki Muraoka², Yoshihisa Nakamura², ¹*Ehime University, Matsuyama, Japan*, ²*Tohoku University, Sendai, Japan*
- DT-14 Iterative Decoding of Greater Than 100 Gb/in² Recordings**
Nan-Hsiung Yeh¹, Philip L Steiner¹, Yan X Li², ¹*Seagate Technology LLC, Fremont, CA*, ²*University of Arizona, Tucson, AZ*
- DT-15 On the Performance of Soft Reed-Solomon Decoding for Magnetic Recording Channels with Erasures**
Haitao Xia, J. R. Cruz, *University of Oklahoma, Norman, OK*
- DT-16 New High Rate Low Density Parity Check Codes for Multi-Track Recording**
Mohammed Zaki Ahmed, *C. R. I. S. T., Plymouth, United Kingdom*
- DT-17 Array Codes for Magnetic Recording Channels with Erasures**
WeiJun Tan, J. R. Cruz, *The Univ. of Oklahoma, Norman, OK*
- DT-18 A Study on Post-Processing for PRML with AR Channel Model in Perpendicular Magnetic Recording**
Yoshihiro Okamoto¹, Sho Funano¹, Hisashi Osawa¹, Hidetoshi Saito², Hiroaki Muraoka², Yoshihisa Nakamura², ¹*Ehime University, Matsuyama, Japan*, ²*Tohoku University, Sendai, Japan*
- DT-19 Joint Estimation of Data and Timing in the Presence of Inter-Symbol Interference**
Jorge Campello¹, Brian Marcus², Richard New¹, Bruce Wilson¹, ¹*IBM, San Jose, CA*, ²*Math Dept., UBC, Vancouver, Canada*
- DT-20 Reduced-Complexity Turbo Equalizer for High-Density Magnetic Recording Channels**
Pornchai Supnithi, Steven W. McLaughlin, *Georgia Institute of Technology, Atlanta, GA*

- DT-21 Performance of NPML System in Helical Scanning Azimuth Recording Channel**
Shoji Marukawa¹, Toru Kawamoto¹, Yoshihiro Okamoto², Hisashi Osawa², ¹Matsushita Kotobuki Electronics Industries, Ltd., Saijo, Japan, ²Ehime University, Matsuyama, Japan
- DT-22 Integrated Servo/Mechanical Design of HDD Actuators and Estimation of the Achievable Bandwidth**
Tetsuo Semba¹, Fu-Ying Huang², Matthew T. White², ¹IBM Japan, Yamato-Shi, Japan, ²IBM Almaden Research Center, San Jose, CA
- DT-23 A Study on ECC for Servo Track Identifiers**
Jai N Subrahmanyam, Jack M Chue, *Western Digital, San Jose, CA*
- DT-24 Servo Detection Based on Coding and Noise Prediction**
Pervez M Aziz¹, Viswanath Annampedu², ¹Agere Systems, Dallas, TX, ²Agere Systems, Allentown, PA
- DT-25 A Signal Interpolated Timing Recovery System with Frequency Offset Detector**
Masaru Sawada¹, Motomu Takatu¹, Toshihiko Morita¹, Takao Sugawara², ¹Fujitsu Laboratories Ltd., Kawasaki, Japan, ²Fujitsu Ltd., Kawasaki, Japan
- DT-27 Comparison and Design of Servo Controllers for Dual-Stage Actuators in Hard Disk Drives**
Max Rotunno, Raymond De Callafon, Frank Talke, *University of California, San Diego, La Jolla, CA*

WEDNESDAY AM

SALON B/C/D

Session EA

TRANSFORMERS, INDUCTORS AND OTHER DEVICES

Toshiro Sato

Shinshu University, Nagano, Japan

- EA-01 9:00 Tb Doped CoTaZr Soft Magnetic Films for Integrated Inductors**
Ankur Mohan Crawford¹, Amish Babu¹, Nianxiang Sun², Shan X. Wang¹, ¹Stanford University, Stanford, CA, ²IBM, San Jose, CA
- EA-02 9:15 Magnetic Cores Usable in GHz Range Made by Compressing NiFe Microspheres Encapsulated with NiZn Ferrite by Wet Process**
Duksil Kim, Masanori Ohnishi, Nobuhiro Matsushita, Masanori Abe, *Dept. of Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*
- EA-03 9:30 A New 1MHz-9GHz Thin-Film Permeameter**
Masahiro Yamaguchi¹, Yasunori Miyazawa², Katsuji Kaminishi², Ken-Ichi Arai¹, ¹RIEC, Tohoku University, Sendai, Japan, ²Ryowa Electronics Inc., Sendai, Japan

- EA-04** **Ultra-Low-Profile Micromachined Power Inductors with Highly Laminated NiFe Cores: Application to Low MHz DC-DC Converters**
9:45
 Jin-Woo Park, Mark G. Allen, *Georgia Institute of Technology, Atlanta, GA*
- EA-05** **Micro Inductor for Flip Chip Micro Power Source**
10:00
 Eishu Sugawara¹, Naoki Wakou¹, Fumihiko Sato², Hidetoshi Matsuki², Masahiro Yamaguchi³, Kiwamu Shirakawa⁴, Tsuyoshi Masumoto⁴, ¹*NEC Tokin Corporation, Sendai, Japan*, ²*Graduate School of Engineering, Tohoku University, Sendai, Japan*, ³*RIEC, Tohoku University, Sendai, Japan*, ⁴*RIEMM, Sendai, Japan*
- EA-06** **Measured Electrical Performance of V-Groove Inductors for Microprocessor Power Delivery**
10:15
 Satish Prabhakaran, Charles R Sullivan, Kapil Venkatachalam, *Thayer School of Engineering, Dartmouth College, Hanover, NH*
- EA-07** **Design Study for Ultra-Flat, PCB Integrated Inductors for Low Power Conversion Applications**
10:30
 Matthias Ludwig¹, Maeve Duffy², Terence O Donnell¹, Cian O Mathuna¹, ¹*National Microelectronics Research Centre, Cork, Ireland*, ²*National University of Ireland, Galway, Ireland*
- EA-08** **Magnetic Thin Film Modulator by Magneto Resistance Effect Film**
10:45
 Hiroaki Tsujimoto, *Osaka City University, Osaka, Japan*
- EA-09** **Phase Detection of High Frequency Carrier Type Thin Film Sensor**
11:00
 Shin Yabukami¹, Hiroshi Mawatari¹, Osamu Shimoe², Hiroaki Kikuchi³, Ken-Ichi Arai¹, ¹*RIEC Tohoku University, Sendai, Japan*, ²*Hitachi Metals, Kumagaya, Japan*, ³*Iwate Univ., Morioka, Japan*
- EA-10** **Analytical Calculation of Winding Capacitances in Transformers**
11:15
 Stephan Voss, Manfred Albach, *Lehrstuhl für Elektromagnetische Felder, Erlangen, Germany*
- EA-11** **Core Losses in Claw Pole Permanent Magnet Machines with Soft Magnetic Composite Stators**
11:30
 Youguang Guo¹, Jianguo Zhu¹, Jinjiang Zhong¹, Wei Wu², ¹*University of Technology, Sydney, Australia*, ²*CSIRO Telecommunications & Industrial Physics, Sydney, Australia*
- EA-12** **Development of Thermomagnetic Engine for Exhaust Heat Recovery**
11:45
 Yutaka Takahashi, Masahiro Nishikawa, *Osaka University, Suita, Osaka, Japan*

Session EB
NdFeB PERMANENT MAGNETS

Bao-Min Ma

Magnequench Technology Center, Research Triangle Park, NC

- *EB-01 Memory of Texture During HDDR Process**
9:00 Oliver Gutfleisch¹, K. Khlopkov², A. Teresiak², K.H. Müller², G. Drazic³, C. Mishima⁴, Y. Honkura⁴, ¹*Leibniz Institute of Solid State and Materials Research, Dresden, Germany*, ²*IFW Dresden, Institute for Metallic Materials, Dresden, Germany*, ³*Jozef Stefan Institute, Ljubljana, Slovenia*, ⁴*Aichi Steel Corporation, Tokai-shi, Japan*
- EB-02 Topology of Nd-Fe-B Magnets with A High Energy Density**
9:30 Werner Rodewald, Boris Wall, Matthias Katter, Kaan Uestuener, *Vacuumschmelze GmbH & Co. KG, Hanau, Germany*
- EB-03 Microstructural Control of Nb Addition in Nanocrystalline Hard Magnets with Different Nd Content**
9:45 Ya-Qiao Wu¹, Matthew J. Kramer¹, Zhongmin Chen², Bao-Min Ma², De-Hai Ping³, Kazuhiro Hono³, ¹*Ames Laboratory, Iowa State University, Ames, IA*, ²*Magnequench Technology Center, Research Triangle Park, NC*, ³*National Institute for Materials Science, Tsukuba, Japan*
- EB-04 Formation of Metastable Pr₂Fe₂₃B₃ Phase and Its Effect on Magnetic Properties in Rapidly Quenched Pr₉Fe_{91-x}B_x (x=4-12) Magnets**
10:00 Zhongmin Chen, Benjamin R Smith, Bao-Min Ma, *Magnequench Technology Center, Durham, NC*
- EB-05 Effects of Co Substitution on the Magnetic and Microstructural Properties of Melt-Spun Pr₇Tb₁Fe_{87-x}Co_xNb_{0.5}Zr_{0.5}B₄ Nanocomp**
10:15 Hongli Wang, Yong Zhang, George Hadjipanayis, Z. Q. Jin, *University of Delaware, Newark, DE*
- EB-06 Intergrain Interactions in Nanocrystalline Isotropic PrFeB-Based Magnets**
10:30 Alberto Bollero, Aru Yan, Oliver Gutfleisch, Karl-Hartmut Müller, Ludwig Schultz, *Institute of Solid State and Materials Research, IFW Dresden, Dresden, Germany*
- EB-07 Bulk Fully Dense Nanocomposite (Nd,Pr,Dy)₂Fe₁₄B/Fe Magnets**
10:45 S. Liu¹, Stan Hilton¹, Yong Zhang², George Hadjipanayis², Christina Chen³, Don Lee¹, ¹*Magnetics Lab, University of Dayton, Dayton, OH*, ²*Department of Physics & Astronomy, University of Delaware, Newark, DE*, ³*EEC, Landisville, PA*
- EB-08 Growth and Stability of Highly Coercive, Highly Textured NdFeB Films**
11:00 Sebastian Fähler, Ullrich Hannemann, Steffen Oswald, Volker Neu, Bernhard Holzapfel, Ludwig Schultz, *IFW Dresden, Dresden, Germany*

EB-09 **Development of NdFeB anisotropic bonded magnet with 11:15 27MGOe**

Norihiko Hamada, Chisato Mishima, Hironari Mitarai, Yoshinobu Honkura, *Aichi Steel Corporation, Tokai-Shi, Japan*

EB-10 **The Effect of Pr and Zr Substitutions on the Disproportionation 11:30 Reaction in NdFeB-Based Materials**

Paul McGuiness, Spomenka Kobe, Benjamin Podmiljsak, *Jozef Stefan Institute, Ljubljana, Slovenia*

EB-11 **A Mossbauer Study of Spring Magnets**

11:45

Monica Sorescu¹, Agnieszka Grabias², Mihaela Valeanu³, ¹*Duquesne University, Pittsburgh, PA*, ²*Institute for Electronic Materials Technology, Warsaw, Poland*, ³*Institute of Atomic Physics, Bucharest-Magurele, Romania*

WEDNESDAY AM

SALON E

Session EC

SYMPOSIUM: APPLICATION OF MAGNETISM IN THE LIFE SCIENCES

John Nyenhuis

Purdue University, West Lafayette, IN

***EC-01** **Design and Fabrication of Bio-Magnetic Sensors and Magnetic 9:00 Nanobead Labels for DNA Detection and Identification**

Shan Wang¹, R. L. White¹, G-X. Li¹, V. Joshi¹, S. Sun², D. B. Robinson², J. T. Kemp³, C. D. Webb³, R. W. Davis³, ¹*Department of Materials Science and Engineering, Stanford University, Stanford, CA*, ²*IBM T. J. Watson Research Center, Yorktown Heights, CA*, ³*Stanford Genome Technology Center, Stanford University, Stanford*

***EC-02** **Gelled vs. Non-Gelled Phantom Material for Measurement of 9:30 Temperature Rise by the MRI RF-Magnetic Field**

John A. Nyenhuis, *ECE, Purdue, West Lafayette, IN*

***EC-03** **A Practical and Theoretical Study of the Formation of CaCO₃ 10:00 in the Presence of A Magnetic Field**

Spomenka Kobe¹, Alciviadis Constantinos Cefalas², Goran Drazic¹, Evangelia Sarantopoulou², Paul John McGuiness¹, Janez Strazisar³, Tone Meden⁴, ¹*Jozef Stefan Institute, Ljubljana, Slovenia*, ²*National Hellenic Research Foundation, Athens, Greece*, ³*Department for Geotechnology and Mining, University of Ljubljana, Ljubljana, Slovenia*, ⁴*Faculty of Chemistry and Chemical Engineering, University of Ljubljana, Ljubljana, Slovenia*

***EC-04** **Detection of Biomolecular Recognition Using Nanometer-Sized 10:30 Magnetic Labels and Spin-Valve Sensors**

Hugo Alexandre Ferreira¹, Daniel Leonard Graham¹, Paulo Peixeiro Freitas¹, Joaquim Sampaio Cabral², ¹*INESC Microsystems & Nanotechnologies, Lisboa, Portugal*, ²*Bioengineering Research Group (IST), Lisboa, Portugal*

- *EC-05** **Dynamic Single Magnetic Bead Detection Using GMR Sensors:
11:00** **Experimental Verification of Simulated Behavior**
Roel Wirix-Speetjens, Jo De Boeck, *IMEC, Leuven, Belgium*
- *EC-06** **Model of An Approach to Targeted Drug Delivery Based on
11:30** **Uniform Magnetic Fields**
Benjamin B Yellen, Zachary G Forbes, Gary Friedman, Kenneth A
Barbee, *Drexel University, Philadelphia, PA*

WEDNESDAY AM

SALON F

**Session ED
MRAM**

Romney Katti

Honeywell International, Inc., Plymouth, MN

- ED-01** **Energy Barriers in Magnetic Random Access Memory
9:00** **Elements**
Rok Dittrich, Thomas Schrefl, Hermann Forster, Dieter Suess,
Werner Scholz, Josef Fidler, *Institute of Solid State Physics, Vienna
University of Technology, Vienna, Austria*
- ED-02** **Kink-Free Design of Submicron MRAM Cell
9:15** Kyung-Jin Lee, Wanjun Park, *Samsung Advanced Institute of
Technology, Suwon, Republic of Korea*
- ED-03** **Pulsed Current Switching of Sub-Micron MRAM Cell
9:30** Manoj K Bhattacharyya, Lung T Tran, Janice Nickel, Thomas C
Anthony, *Hewlett Packard Labs, Palo Alto, CA*
- ED-04** **The Switching Characteristics of Sub-Micron Memory
9:45** **Elements with Synthetic Anti-Ferromagnetic (SAF) Free-
Layers**
Jason Janesky, Nicholas D Rizzo, Brad Engel, Jon Slaughter, Saied
Tehrani, *Motorola, Tempe, AZ*
- ED-05** **Spin-Valve and Pseudo-Spin-Valve Device Switching for Giant
10:00** **Magnetoresistive Random Access Memory Applications**
Romney R Katti, David W Zou, Daniel S Reed, Hassan Kaakani,
Honeywell International, Inc., Plymouth, MN
- ED-06** **A Process Integration of High Performance 64Kbit MRAM
10:15** Hyeong-Jun Kim, H. S. Jeong, Kinam Kim, *Semiconductor R&D
Division, Samsung Electronics, Co. Ltd., Gyeonggi-Do, Republic of
Korea*
- ED-07** **A Novel Low Power VMRAM/MTJ Design with Robust
10:30** **Magnetic Switching**
Xiaochun Zhu, Jian-Gang Zhu, *Carnegie Mellon University,
Pittsburgh, PA*

- ED-08 Empty Square As A Hard-Layer for MRAM**
10:45 Dwarakanath Geerapuram, Anand Mani, Karthik Ayloo, Andrzej Domanowski, Vitali Metlushko, *University of Illinois at Chicago, Chicago, IL*
- ED-09 Increase of Switching Field From A Word Line by Design Optimization**
11:00 Kyoung Suk Kim¹, Sang Ho Lim², ¹*Korea university, Seoul, Republic of Korea*, ²*KIST, Seoul, Republic of Korea*
- ED-10 Thermal Stability Dependence on States for Multi-State MRAM**
11:15 Yuankai Zheng, Jinjun Qiu, Kebin Li, Zaibing Guo, Yihong Wu, *Data Storage Institute, Singapore, Singapore*
- ED-11 Submicron Ferromagnetic Logic And/Or Gates**
11:30 Colm C Faulkner, Dan A Allwood, Michael D Cooke, Gang Xiong, Del Atkinson, Russell P Cowburn, *University of Durham, Durham, United Kingdom*

WEDNESDAY AM

SALON G

Session EE
LONGITUDINAL MEDIA

Erol Girt
 Seagate Technology LLC, Fremont, CA

- *EE-01 Oriented Longitudinal Media on Glass Substrates**
9:00 Xiaoping Bian¹, Kai Tang¹, Mary Doerner¹, Mohammad Mirzamaani¹, Adam Polcyn¹, Mark Mercado¹, Qi-Fan Xiao¹, Jane Zhang¹, Paul Dennig¹, J. Hagan², ¹*IBM, San Jose, CA*, ²*IBM Storage Technology Division, San Jose, CA*
- EE-02 Effect of Oxidation Process on the Grain Size Reduction for Longitudinal Media Using Ni-Based Amorphous Seedlayer**
9:30 Masaki Mikami¹, David D Djayaprawira², Yoshimura Satoru³, Migaku Takahashi², ¹*Res. Center, Asahi Glass Co., Ltd., Yokohama, Japan*, ²*Electron. Eng., Tohoku University, Sendai, Japan*, ³*Tohoku University, Sendai, Japan*
- EE-03 High Density Recording Media with CrMoB Underlayer**
9:45 Mingjun Yu, Ramamurthy Acharya, Geon Choe, *MMC Technology, San Jose, CA*
- EE-04 Transition and DC Noise Characteristics of High OR Media**
10:00 Geon Choe, Ramarmurthy Acharya, Kenneth E Johnson, *MMC Technology, San Jose, CA*
- EE-05 Effects of Mn and Zr Doped Double Underlayers on Magnetic Properties of CoCrPtB Longitudinal Media**
10:15 Wei-Chuan Chen, Chih-Huang Lai, P. H. Tsai, I. P. Ding, *Department of Materials & Engineering, National Tsing Hua University, Hsinchu, Taiwan*

- EE-06** **The Effect of Naturally Adsorbed Gas on the Substrate Surface**
10:30 Satoru Yoshimura, David Djayaprawira, Yuji Takakuwa, Migaku Takahashi, *Tohoku University, Sendai, Japan*
- EE-07** **Relaxation Processes in the Lower Layer of Antiferromagnetically Coupled Media**
10:45 Andreas Moser, Andreas Berger, David T. Margulies, Eric E. Fullerton, *IBM Almaden Research Center, San Jose, CA*
- EE-08** **Effects of Bottom Layer on Recording Performance and Thermal Stability for AFC Media**
11:00 Tetsuya Kanbe, *Hitachi, Odawara, Japan*
- EE-09** **Relationship Between Layer Thicknesses and Recording Properties in AFC Media**
11:15 Natacha Frederique Supper, David Thomas Margulies, Andreas Moser, Hoa Do, Andreas Berger, Eric Edward Fullerton, *IBM Almaden Research Center, San Jose, CA*
- EE-10** **R/W Properties and Thermal Stability of SF-Media**
11:30 Akihiro Inomata, E. Noel Abarra, Antony Ajan, Masayoshi Shinohara, *Fujitsu Laboratories, Atsugi, Japan*
- EE-11** **Media Noise Characteristics in High Density Recording in Anti-Ferromagnetically Coupled Media**
11:45 Hiroshi Ide, Shinji Narishige, Hiroyuki Kataoka, *Data Storage System Division, Hitachi Ltd., Odawara, Japan*

WEDNESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session EP
MAGNETIC CHARACTERIZATION

Matthew Kramer

Iowa State University, Ames Lab., Ames, IA

Fabio Da Silva

NIST, Magnetic Technology Division, Boulder, CO

- EP-01** **Carbon Overlayer for 3-D Pole Metrology**
 Pei Zou, James P. Nadeau, Jason H. Arjavac, *FEI Company, Hillsboro, OR*
- EP-02** **Magnetic Moment of the 4f_n and 4f_{n-15d} Electronic Configurations of Tb³⁺ Ions in Wide Band Gap Fluoride Dielectric Crystals**
 Evangelia Sarantopoulou¹, Spomenka Kobe², Zoe Kollia¹, Paul John McGuinness², Alciviadis Constantinos Cefalas¹, ¹*National Hellenic Research Foundation, Athens, Greece*, ²*Jozef Stefan Institute, Ljubljana, Slovenia*
- EP-03** **Measurement of Core Losses with 3D Magnetic Fluxes**
 Jian Guo Zhu, *University of Technology, Sydney, Australia*

- EP-04 Characterization of Soft Magnetic Thin Film by Means of Single Sheet Testing**
 Marc De Wulf¹, Luc Dupré¹, Hans Te Lintelo², Jan Melkebeek¹,
¹*Ghent University, Gent, Belgium*, ²*Bekaert VDS, Zulte, Belgium*
- EP-05 Comparison of Different Measuring Methods for the Characterization of Permanent Magnet Properties**
 Vittorio Basso, Cinzia Beatrice, Carlo Paolo Sasso, Martino Lobue,
IEN Galileo Ferraris, Torino, Italy
- EP-06 Indirect Identification of Magnetostriction Properties of SiFe Alloys**
 Luc Dupre, Marc De Wulf, Dimitre Makaveev, Jan Melkebeek,
Ghent University, Gent, Belgium
- EP-07 Micromagnetic Investigations of Mesoscopic Magnetic Rings Via Magnetic Force and Magnetoresistive Microscopy**
 Xiaoyong Liu, Benaiah D Schrag, W Shen, D Mazumdar, Gang Xiao,
Brown University, Providence, RI
- EP-08 Microstructural Study of Dependence of Magnetic Properties of Nonoriented Electrical Steel on Applied Mechanical Load**
 A. Pulnikov, V. Permiakov, Luc Dupre, Jan Melkebeek, *Electrical Energy Laboratory, Ghent University, Ghent, Belgium*
- EP-09 Noise Characteristics of Co-Based Amorphous Tapes to Seek Low-Noise Magnetic Shell for Magnetic Shaking**
 Ichiro Sasada, Masahiro Shiokawa, *Kyushu University, Kasuga, Japan*
- EP-10 A Study of ACSN Comparison Between Spin-Stand and Magnetic Force Microscopy**
 Shaoping Li, Wenzhong Zhu, Dean Palmer, *Seagate Technology LLC, Bloomington, MN*
- EP-11 Magnetization Vector Measurement by Wideband High Spatial Resolution Kerr Microscope**
 Toshiaki Nagai, Hidenori Sekiguchi, Akio Ito, *Fujitsu Laboratories Ltd., Atsugi, Japan*
- EP-12 Noncontact Atomic Force Microscopy Imaging of Antiferromagnetic NiO(001) Surface Using Ferromagnetic Fe-Coated Si Tip**
 Hirotaka Hosoi¹, Kazuhisa Sueoka², Koichi Mukasa², ¹*Japan Science and Technology Corporation, Sapporo, Japan*, ²*Graduate School of Engineering, Hokkaido University, Sapporo, Japan*
- EP-13 Magnetic Domain Configuration in Microstructured Fe₃₀Al Film Grown by Molecular Beam Epitaxy**
 J. C. Wu¹, Lance Horng¹, W. Z. Shieh¹, Te-Ho Wu², G. Chern³,
¹*Department of Physics, National Changhua University of Education, Changhua, Taiwan*, ²*Department of Humanities and Science, National Yunlin University of Science and Technology, Touliu, Taiwan*, ³*Department of Physics, National Chung-Cheng University, Chia-I, Taiwan*

EP-14 Observation of Ferromagnetic Domain Structures Using Scanning Magnetoresistance Microscope with A Magnetoresistive Cantilever

Motonori Nakamura, Taiichi Takezaki, Kazuhisa Sueoka, Koichi Mukasa, *Hokkaido university, Sapporo, Japan*

EP-15 Real-Time Current Density Imaging of Electromigration Processes Using Scanning Magnetoresistive Microscopy

Benaiah D. Schrag, Gang Xiao, *Brown University, Providence, RI*

EP-16 High Resolution MFM Observation of Recorded Patterns of Perpendicular Magnetic Recording Media in Ultra High Density

Eiichi Miyashita¹, Nobuhiko Funabashi¹, Ryo Taguchi¹, Takahiko Tamaki¹, Yoshihiro Fujita¹, Yasushi Sakai², Kazuo Enomoto², Shunji Takenoiri², Sadayuki Watababe², Akihiro Otsuki², ¹*NHK, Tokyo, Japan*, ²*Fuji Electric Co., Ltd, Matsumoto, Japan*

EP-17 The Magnetic Reversal Study of Permalloy Micro Domains

Y. M Huang¹, Chi Kuen Lo¹, Y-D D Yao², T. R Jeng¹, J. J Ju¹, ¹*Lab. for Spintronics, ITRI, Hsingchu, Taiwan*, ²*Institute of Physics, Academia Sinica, Taipei, Taiwan*

EP-18 High Resolution MFM: Simulation of Tip Sharpening

Hitoshi Saito¹, Arnout Van Den Bos², Leon Abelmann², J. C. Lodder², ¹*Akita Univ., Akita, Japan*, ²*Univ. of Twente, Enschede, The Netherlands*

WEDNESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

**Session EQ
MAGNETIC FLUIDS I**

Gary Friedman
Drexel University, Philadelphia, PA

EQ-01 Cadmium-Ferrite-Based Magnetic Fluid: Birefringence and Transmission Electron Microscopy Investigation

Paulo Cesar Morais¹, Osni Silva², Patricia Gravina¹, Leandro Figueiredo¹, Emilia Lima², Luciano Silva¹, Ricardo Azevedo¹, Kalil Skeff-Neto¹, ¹*Universidade de Brasilia, Brasilia, Brazil*, ²*Universidade Federal de Goias, Goiania, Brazil*

EQ-02 Magnetic Resonance Study of Zero-Field-Frozen Magnetite-Based Biocompatible Magnetic Fluid

Luciene Silveira¹, Judes Santos¹, Fernando Pelegrini², Christian Gansau³, Norbert Buske³, Paulo Morais¹, ¹*Universidade de Brasilia, Brasilia, Brazil*, ²*Universidade Federal de Goias, Goiania, Brazil*, ³*Berlin Heart AG, Berlin, Germany*

EQ-03 Uptake of DMSA-Coated Magnetic Nanoparticles by Blood Cells

Sacha Braun Chaves¹, Luciano Paulino Silva¹, Zulmira Guerrero Marques Lacava¹, Norbert Buske², Christian Gansau², Paulo Cesar Morais¹, Ricardo Bentes Azevedo¹, ¹*University of Brasilia, Brasilia, Brazil*, ²*Berlin Heart AG, Berlin, Germany*

EQ-04 Magneto-Optical Properties of Bi-YIG Nanoparticle with Poly-Methacrylate Matrix Materials

Tae-Youb Kim¹, Yohtaro Yamazaki², Yeong-Dae Hong³, Teruyoshi Hirano⁴, ¹*Dept. Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*, ²*Dept. Innovative and Engineered Materials, Tokyo Institute of Technology, Yokohama, Japan*, ³*Dept. Advanced Materials, Kosin University, Pusan, Republic of Korea*, ⁴*Toppan Printing Co., Ltd., Saitama, Japan*

EQ-05 Optical Stability of Citrate-Coated Magnetite and Cobalt-Ferrite Nanoparticles: A Raman Spectroscopy Investigation

Sebastiao William Da Silva¹, Tiago França Melo¹, Maria Aparecida Soler¹, Emilia Célia Lima², Maria Fátima Da Silva¹, Paulo Cesar Morais¹, ¹*Universidade de Brasília, Brasília, Brazil*, ²*Universidade Federal de Goiás, Goiânia, Brazil*

EQ-06 Preparation of Nanometric $\text{Cu}_x\text{Fe}_{1-x}\text{OFe}_2\text{O}_3$ and Design of A Magnetic Field System for Treatment of Tumor

Yuqiang Huang¹, Sang-Im Park¹, Jong-Hee Kim², Chong-Oh Kim¹, ¹*Dept. of Mater. Eng., Chungnam Nat'l Univ., Taejon, Republic of Korea*, ²*Research Center for Advanced Magnetic Materials, Chungnam Nat'l Univ., Taejon, Republic of Korea*

EQ-07 Magnetic Resonance and Light Microscopy Investigation in Magnetoliposome Treated Mice

V. A P Garcia¹, L. M Lacava¹, Paulo C Morais¹, Osni Silva², Fernando Pelegrini², M Decuyper³, Zulmira G M Lacava¹, ¹*Universidade de Brasilia, Brasilia, Brazil*, ²*Universidade Federal de Goiás, Goiania, Brazil*, ³*K. U. Leuven Campus Kortrijk, Kortrijk, Belgium*

WEDNESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session ER

POWER AND MAGNETIC DEVICE CONTROL I

K.R. Rajagopal

Indian Institute of Technology, New Delhi, India

Ichiro Sasada

Kyushu University, Kasuga, Japan

ER-01 Influence of Tooth-Geometry on the Torque Performance of A Hybrid Stepper Motor

K. R. Rajagopal, B. Singh, B. P. Singh, *Indian Institute of Technology, New Delhi, India*

ER-02 Analyses of A Bearingless Three Phase Induction Machine

Andres Ortiz Salazar, Jossana Maria de Souza Ferreira, Felipe Emmanuel Ferreira De Castro, *UFRN, Natal, Brazil*

ER-03 Computer Aided Design of A Hysteresis Motor Used in Space Application

K. R. Rajagopal, *Indian Institute of Technology, New Delhi, India*

- ER-04 Reduction of Cogging Torque in Interior-Magnet Brushless Machines**
Z. Q. Zhu, S. Ruangsinchaiwanich, N. Schofield, D. Howe, *University of Sheffield, Sheffield, United Kingdom*
- ER-05 Geometric and Electric Optimization Design of SR Motor Based on Progressive Quadratic Response Surface Method**
Jae-Hak Choi, Ju Lee, Sol Kim, *Energy Conversion Lab., Hanyang University, Seoul, Republic of Korea*
- ER-06 Thermal Analysis of Induction Heating Roll with Heat Pipes**
Seok-Myeong Jang, Seong-Kook Cho, Seong-Ho Lee, Han-Uk Cho, *Dept. of Electrical Engineering, Chungnam National University, Daejeon, Republic of Korea*
- ER-07 Sensorless Driving Method of Permanent Magnet Synchronous Motors Based on Neural Networks**
Hai-Jiao Guo¹, Seiji Sagawa², Tadaaki Watanabe¹, Osamu Ichinokura¹, ¹*Tohoku University, Sendai, Japan*, ²*Electric Power Developments Co. Ltd, Tokyo, Japan*
- ER-08 Dynamic Analysis of Interior Permanent Magnet Motor Based on A Magnetic Circuit Model**
Kenji Nakamura, Kenichi Saito, Osamu Ichinokura, *Graduate School of Engineering, Tohoku University, Sendai, Japan*
- ER-09 Dynamic Simulation Model of Switched Reluctance Generator**
Osamu Ichinokura, Tsukasa Kikuchi, Kenji Nakamura, Tadaaki Watanabe, Hai-Jiao Guo, *Graduate School of Engineering, Tohoku University, Sendai, Japan*
- ER-10 Performance Comparison Between Circular and Elliptical Type Micro-Speakers for Cellular Phones**
Chan-Haeng Lee¹, Gun-Yong Hwang¹, Sang-Moon Hwang¹, Beom-Soo Kang¹, Seung-Kyu Jeung², ¹*Pusan National University, Pusan, Republic of Korea*, ²*Chanwon National University, Chanwon, Republic of Korea*
- ER-11 New Development of Integrated Micro-Speaker and Dynamic Receiver Used for Cellular Phone**
Hong-Joo Lee, Ji-Hoon Kim, Gun-Yong Hwang, Sang-Moon Hwang, Beom-Soo Kang, *Pusan National University, Pusan, Republic of Korea*
- ER-12 Development of Solenoid Type Vibrator Used for Mobile Phones**
Hong-Joo Lee¹, Gun-Yong Hwang¹, Sang-Moon Hwang¹, Beom-Soo Kang¹, Seung-Kyu Jeung², ¹*Pusan National University, Pusan, Republic of Korea*, ²*Chanwon National University, Chanwon, Republic of Korea*
- ER-13 Analysis of Unbalance Force for High Speed Slotless Permanent Magnet Machine with Halbach Array**
Han Wook Cho, Seok Myeong Jang, *Dept. of Electrical Engineering, Daejeon, Republic of Korea*

- ER-14** **2D FE Analysis of Hybrid Stepping Motor (HSM) Using Virtual Magnetic Barrier**
 Ki-Bong Jang, Seong-Yeop Lim, Chang-Sung Jin, Ju Lee, *Hanyang University, Seoul, Republic of Korea*
- ER-15** **Efficiency Evaluations of Synchronous Reluctance Motor Using Coupled FEM & Preisach Modeling**
 Jung Ho Lee, *Dept. of Electrical Eng., Hanbat Nat'l University, Daejeon, Republic of Korea*
- ER-16** **A Non-Contact Charge System of An Electric Vehicle**
 Hiroshi Sakamoto, Koosuke Harada, Yoshiteru Matsuda, Syuukou Washimiya, *Sojo University, Kumamoto, Japan*
- ER-17** **An Optimization Method for Design of PM Motor by Coupling Voltage Driven Finite Element Method with Genetic Algorithm**
 Shinya Matsutomo¹, So Noguchi¹, Hideo Yamashita¹, Shigeya Tanimoto², ¹*Hiroshima University, Higashi-Hiroshima, Japan*, ²*Toshiba Corporation, Yokohama, Japan*
- ER-18** **FE Analysis for Optimum Pole Arcs for A Switched Reluctance Motor**
 N. K. Sheth, K. R. Rajagopal, *Indian Institute of Technology, New Delhi, India*
- ER-19** **Optimization of Inductively Coupled Power Transfer System with Flat Pickups**
 Dariusz Kacprzak, Grant Covic, John Boys, *Univeristy of Auckland, Auckland, New Zealand*
- ER-20** **Finite Element Analysis of Brushless DC Motor Considering Freewheeling Diodes and DC Link Voltage Ripple**
 Tae Heoung Kim, Ju Lee, *Hanyang University, Seoul, Republic of Korea*
- ER-21** **A New Sinusoidal-Wave Inverter Utilizing Magnetic Oscillation**
 Shinichi Okanuma, Akio Hayasaka, *Fukushima University, Fukushima, Japan*

WEDNESDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session ES

HIGH POLARIZATION MATERIALS AND MAGNETIC TUNNEL JUNCTIONS I

Shan Wang

Stanford University, Stanford, CA

Jagadeesh Moodera

Francis Bitter Magnet Lab, MIT, Cambridge, MA

- ES-01** **Effect of Surface Roughness on Plasma Oxidation Behavior of Al Layer and Tunneling Magnetoresistance**

Dong-Min Jeon, Jin-Woo Park, Seong-Yong Yoon, Du-Hyun Lee, Dae-Ho Yoon, Sue-Jeong Suh, *Sungkyunkwan university, Suwon, Republic of Korea*

- ES-02 RF Magneto-Impedance Effect of Spin Tunneling Junctions**
Hideo Kaiju, Naoaki Hirabayashi, Takeshi Morozumi, Shigeo Fujita, Kazuo Shiiki, *Keio University, Kanagawa, Japan*
- ES-03 Microfabrication of Magnetic Tunnel Junctions Using Al As Bottom Conduction Electrode**
Xiu Feng Han, Fei Fei Li, Wei Ning Wang, Su Fen Zhao, Zi Long Peng, Wen Shan Zhan, Bao Shan Han, *Institute of Physics, Chinese Academy of Sciences, Beijing, People's Republic of China*
- ES-04 Temperature Dependence of Dynamic Conductance A Step Beyond Julliere Model for Magnetic Tunnel Junctions**
Janusz J Nowak, *RHO Seagate LLC, Bloomington, MN*
- ES-05 Improved Thermal Stability of Ferromagnetic Tunnel Junctions with A CoFe/CoFeO_x/CoFe Pinned Layer**
Takao Ochiai¹, Nobuki Tezuka¹, Koichiro Inomata¹, Satoshi Sugimoto¹, Yoshiaki Saito², ¹*Department of Material Science, Tohoku University, Sendai, Japan*, ²*Corporate Research & Development Center, Toshiba Inc., Kawasaki, Japan*
- ES-06 Magnetotransport of Semimetallic Bi Thin Films Grown by Electroplating and Sputtering**
K. I. Lee¹, M. H. Jeun², K. H. Lee¹, J. Y. Chang¹, J. G. Ha², K. H. Shin¹, S. H. Han¹, W. Y. Lee¹, ¹*Korea Institute of Science and Technology, Seoul, Republic of Korea*, ²*Kwangwoon University, Seoul, Republic of Korea*
- ES-07 Effects of Mg Doping and Sintering Temperature on the Magnetoresistance of Sintered Fe₃O₄ Ferrites**
C. T. Lie¹, P. C. Kuo¹, C. Y. Chou¹, J. W. Chen², ¹*Institute of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan*, ²*Department of Physics, National Taiwan University, Taipei, Taiwan*
- ES-08 Magnetic Measurements in Double Perovskite Ca₂FeMoO₆**
Ana Garcia-Flores, Victor Raposo, Marcelino Zazo, José Ignacio Iñiguez, *Universidad de Salamanca, Salamanca, Spain*
- ES-09 Neutron Diffraction and Mossbauer Studies of the La_{0.67}Ba_{0.33}Mn_{0.99}⁵⁷Fe_{0.01}O₃**
Kang Ryong Choi, Sam Jin Kim, In Bo Shim, Chul Sung Kim, *Kookmin University, Seoul, Republic of Korea*
- ES-10 Volume Effects on Magnetic Transitions in Pr_{1-x}Sr_xMnO₃ Perovskites**
Klaus Bärner¹, Irina Vladimirovna Medvedeva², Vladimir Morchshakov¹, ¹*Physikalisches Institut der Universität Göttingen, Göttingen, Germany*, ²*Institute for Metal Physics, Ural Division of Russian Academy of Sciences, Ekaterinburg, Russian Federation*

Session ET
MAGNETIC THIN FILMS AND NANOSTRUCTURES

J.W. Harrell

University of Alabama, Tuscaloosa, AL

Xiaowei Wu

Seagate Technology, Pittsburgh, PA

- ET-01 Landau Energy Functions and Coefficients for Patterned Magnetic Arrays**
Agne Kundrotaite, Mahfuzur Rahman, John N Chapman, *University of Glasgow, Glasgow, United Kingdom*
- ET-02 Structural Characterization and Magnetization Reversal of 0.1 Micron Scale Antidot-Type Arrays Patterned by Ga+ Irradiation**
Nicholas Wyn Owen, Amanda Petford-Long, *University of Oxford, Oxford, United Kingdom*
- ET-03 Domain Observation of Ni-Fe Dots in External Field by Using Kerr Microscopy**
Masaaki Takezawa, Jiro Yamasaki, *Kyushu Institute of Technology, Kitakyushu, Japan*
- ET-04 Topographic and Magnetic Structure of Undulated Permalloy Films Measured in UHV**
Herman Pandana, Michael Dreyer, R. D. Gomez, *University of Maryland, College Park, MD*
- ET-05 Direct Observation of A Stripe Chopping Process in Garnet Films**
Masatoshi Ohkoshi, *Kyushu Institute of Technology, Iizuka, Japan*
- ET-06 Influence of Stress and Microstructure on the Domain Distribution in Sputtered High Moment Fe₅₀Co₅₀ Films**
Jeffrey McCord¹, Dieter Sascha², Klaus Seemann³, Sebastian Fähler¹, ¹*Leibniz Institute for Solid State and Materials Research, Dresden, Germany*, ²*Institut für Werkstoffwissenschaften, TU Berlin, Berlin, Germany*, ³*Forschungszentrum Karlsruhe, Eggenstein-Leopoldshafen, Germany*
- ET-07 Focused Ion-Beam Fabrication of Nanoscale Magnetic Structures**
Dmitri Litvinov¹, Fang Chen², Erik Svedberg¹, Thomas Ambrose¹, James A. Bain², Tuviah E. Schlesinger², J. Kent Howard¹, Sakhrat Khizroev¹, ¹*Seagate Research, Pittsburgh, PA*, ²*Carnegie Mellon University, Pittsburgh, PA*
- ET-08 Study of Co-C System for Magnetic Nano-Patterning Via E-Beam Radiation Induced Nanoscale Magnetic Phase Change**
Yan Zhao¹, Tiejun Zhou¹, Jianping Wang², Towchong Chong¹, ¹*Data Storage Institute, Singapore, Singapore*, ²*The Center for Micromagnetics and Information Technologies, Singapore, Singapore*

- ET-09 Nonuniform Micromagnetic States in Thin Elliptical Particle**
Ching-Ray Chang¹, Zung-Hang Wei¹, N. A. Usov², Mei-Feng Lai¹, J. C. Wu³, ¹*Department of Physics, National Taiwan University, Taipei, Taiwan*, ²*Troitsk Institute for Innovation and Fusion Research, Troitsk, Russian Federation*, ³*Department of Physics, National Changhua University of Education, Changhua, Taiwan*
- ET-10 Dynamic Susceptibility Investigation of Magnetite Nanoparticles in Polymeric Template**
Anselmo Rodriguez¹, Aderbal Oliveira¹, Emilia Lima², Denilson Rabelo², Paulo Morais¹, ¹*Universidade de Brasilia, Brasilia, Brazil*, ²*Universidade Federal de Goias, Goiania, Brazil*
- ET-11 Microstructure and Magnetic Properties of Nanoscale FeOOH Particles Assemblies**
Xiangcheng Sun¹, Dongliang Peng², David E. Nikles¹, ¹*Center for Materials for Information Technology, The University of Alabama, Tuscaloosa, AL*, ²*Dept. of Materials Science and Engineering, Nagoya Institute of Technology, Nagoya, Japan*
- ET-12 Magnetic Properties of A Mixture of Two Nanosized CO-S Powders Produced by Hydrothermal Reduction**
Xiangcheng Sun¹, Kiumars Parvin², Ly Jimmy², ¹*MINT center, University of Alabama, Tuscaloosa, AL*, ²*Department of Physics, San Jose State University, San Jose, CA*
- ET-13 Structural, Magnetic and Mössbauer Characterization of Controlled-Size Iron - Iron Oxide Nanoparticles Obtained by Chemical Methods**
José Marcelo Vargas¹, Leandro Martín Socolovsky², Gerardo Fabián Goya³, Marcelo Knobel⁴, Daniela Zanchet⁵, ¹*LNLS, Campinas, Brazil*, ²*UNICAMP, São Paulo, Brazil*, ³*USP, São Paulo, Brazil*, ⁴*UNICAMP, Campinas, Brazil*, ⁵*LNLS, São Paulo, Brazil*
- ET-14 Domain Wall Pinning at F/AF Interface Defects**
Ana Lucia Dantas¹, G. O. Rebouças¹, J. C. Barbosa¹, H. T. Souza¹, I. S. Queiroz Jr¹, A. S. Carriço², ¹*UERN, Mossoro, Brazil*, ²*UFRN, Natal, Brazil*
- ET-15 Structure Dependent Stray Fields From Domain Walls in Permalloy Films**
Makhlouf Redjidal¹, Jim Giusti², Mike F. Ruane¹, Floyd B. Humphrey¹, ¹*Boston University, Boston, MA*, ²*Seagate Tech., Bloomington, MN*
- ET-16 Kerr Microscopy Study of Polycrystalline Thin Film Stripes**
Jeffrey McCord¹, Till Schmitte², Rudolf Schäfer¹, Hartmut Zabel², Ludwig Schultz¹, ¹*Leibniz Institute for Solid State and Materials Research, Dresden, Germany*, ²*Ruhr Universität Bochum, Bochum, Germany*

Session EU
FERRITES I

Carmine Vittoria

Northeastern University, Boston, MA

- EU-01** **Magnetic Properties of Co₂Y-Type Hexaferrite Particles Oriented in A Rotating Field**
Mahmut Obol, Carmine Vittoria, *Northeastern University, Boston, MA*
- EU-02** **Low Temperature Annealing Effect on Plasma Sprayed MnZn Ferrite for Planar Transformers of High Frequency Applications**
Qingyu Yan, Richard Gambino, Sanjay Sampath, *SUNY at Stony Brook, Stony Brook, NY*
- EU-03** **Enhanced Coercive-Force of Al-Substituted Bi-GdIG Nanoparticles with Magnetic Compensation Composition**
Tae-Youb Kim¹, Yeong-Dae Hong², ¹*Dept. Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*, ²*Dept. Advanced Materials, Kosin University, Busan, Republic of Korea*
- EU-04** **Effects of Electron Doping on the Magnetic Properties of Double Perovskites A₂FeMoO₆ (A=Ca and Ba)**
Hauk Han¹, Hyunmo Yang¹, Woo Young Lee¹, Bo Wha Lee¹, Sung Baek Kim², Chul Sung Kim², ¹*Physics Dept., HUFs, Yongin, Republic of Korea*, ²*Physics Dept., Kookmin Univ., Seoul, Republic of Korea*
- EU-05** **Effect of Sn Addition on the Magnetic Aftereffects of Yttrium Iron Garnets**
Carlos Torres¹, Pablo Hernández-Gómez¹, Jose María Muñoz¹, Carlos De Francisco¹, Oscar Alejos¹, Keizo Hisatake², Ikuya Matsubara², ¹*Dpto. Electricidad y Electronica, Universidad de Valladolid, Valladolid, Spain*, ²*Department of Physics, Kanagawa Dental College, Kanagawa, Japan*
- EU-06** **NiZn Ferrite Thick Film with Nano Scale Crystallite Formed by Aerosol Deposition Method**
Maxim Lebedev¹, Satoshi Sugimoto², Jun Akedo¹, Koichiro Inomata², ¹*National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*, ²*Tohoku University, Sendai, Japan*
- EU-07** **Microstructure and Magnetic Properties of Co-Doped NiZn Ferrites**
Ovidiu Florin Caltun¹, Leonard Spinu², Marcel Feder³, ¹*Alexandru Ioan Cuza University, Iasi, Romania*, ²*University of New Orleans, New Orleans, LA*, ³*National Institute of Material Physics, Bucharest-Magurele, Romania*

EU-08 Magnetic Properties of $\text{Cu}_{1+x}\text{Ge}_x\text{Fe}_{2-2x}\text{O}_4$ Mixed Ferrites (M= Ti, Ge, $0 \leq x \leq 0.4$)

Ahmed Al-Rawas¹, Abdelmajid Rais¹, Ali Yousif¹, Abbasher Gismelseed¹, Mohammed Elzain¹, Ahmed Al-Falaky², Said Mazen²,
¹Physics Dept., Sultan Qaboos University, Muscat, Oman, ²Physics Dept., Zagazig University, Cairo, Egypt

EU-09 Magnetic Properties and Mossbauer Studies of $\text{Y}_{3-x}\text{Ce}_x\text{Fe}_5\text{O}_{12}$ (x= 0.0, 0.1, 0.3) Fabricated Using A Sol-Gel Method

Jun Sig Kum, Sam Jin Kim, In-Bo Shim, Chul Sung Kim, Dept. of Physics, Kookmin University, Seoul, Republic of Korea

WEDNESDAY PM

SALON B/C/D

Session FA

MAGNETIC AND STRUCTURAL CHARACTERIZATION

Amanda Petford-Long

University of Oxford, Oxford, United Kingdom

FA-01 Soft X-Ray Diffraction: An Element Sensitive Tool to Characterize Patterned Arrays of Nanomagnets
2:00

Cecilia Sanchez-Hanke¹, Fernando J. Castaño², Yaowu Hao³, Caroline A. Ross², Henry I. Smith³, Chi-Chang Kao¹, ¹National Synchrotron Light Source, Brookhaven National Lab., Upton, NY, ²Department of Materials Science and Engineering, MIT, Cambridge, MA, ³Department of Electrical Engineering and Computer Science, MIT, Cambridge, MA

FA-02 Imaging Sub-ns Spin Dynamics with Transmission X-Ray Microscopy
2:15

Peter Fischer¹, Hermann Stoll¹, Aleksandar Puzic¹, Joerg Raabe², Greg Denbeaux³, Gisela Schuetz¹, ¹MPI-MF, Stuttgart, Germany, ²Univ. Regensburg, Regensburg, Germany, ³CXRO LBNL, Berkeley, CA

FA-03 Magnetostriction Measurement Using EXAFS
2:30

Mike Gibbs¹, Robert Pettifer², Martin Hollingworth¹, Olivier Mathon³, Sakura Pascarelli³, ¹University of Sheffield, Sheffield, United Kingdom, ²University of Warwick, Coventry, United Kingdom, ³ESRF, Grenoble, France

FA-04 Method for Read Width Determination Beyond 100 ktpi by Imaging the Magnetic Field Emitted by Narrow Cu Waveguides
2:45

Thomas M. Crawford, M. A. Seigler, M. Covington, A. Eckert, A. K. Langzettel, Seagate Technology, Pittsburgh, PA

FA-05 A Magnetic Imaging System for Evaluation of Material Conditions Using Magnetoresistive Devices
3:00

Chester C. H. Lo, Jason A. Paulsen, David C. Jiles, Center for Nondestructive Evaluation, Iowa State University, Ames, IA

- FA-06 3:15** **A Novel Point-Dipole MFM Tip Obtained From An Antiferromagnetically Coupled Synthetic Coating**
Yihong Wu^{1,2}, Yatao Shen², Zhiyong Liu², Kebin Li², Jinjun Qiu², Tow Chong Chong², ¹*Department of Electrical Engineering, National University of Singapore, Singapore, Singapore*, ²*Data Storage Institute, Singapore, Singapore*
- FA-07 3:30** **Simultaneous Magnetic Force Microscopy and Magnetoresistance Characterization of A Magnetic Tunnel Junction with in-Situ Applied Field**
Jeffrey Leib¹, Brian Baker¹, Yuping Shen¹, John Snyder², Toshikazu Kawaguchi², David Jiles², ¹*Department of Materials Science and Engineering, Iowa State University, Ames, IA*, ²*Ames Laboratory, Iowa State University, Ames, IA*
- FA-08 3:45** **Scanning Tunneling Spectroscopy of Individual Iron Atoms in A Permalloy Surface**
Michael Dreyer, Herman Pandana, R. D. Gomez, *University of Maryland, College Park, MD*
- FA-09 4:00** **Room Temperature Scanning Micro-Hall Probe Microscopy Under Extremely Large Pulsed Magnetic Fields**
Adarsh Sandhu¹, Hiroshi Masuda², Ahmet Oral³, ¹*Tokyo Institute of Technology, Tokyo, Japan*, ²*Toei Kogyo Ltd, Machida, Japan*, ³*Bilkent University, Ankara, Turkey*
- *FA-10 4:15** **Thermal Proximity Sensing for Hard Disks**
David W Abraham¹, T. J. Chainer¹, K. F. Etzold¹, H. K. Wickramasinghe², ¹*IBM T. J. Watson Research Center, Yorktown Heights, NY*, ²*IBM Almaden Research Center, San Jose, CA*
- FA-11 4:45** **Experimental Determination of Demagnetization Field in Perpendicular Media**
Ashwin Sunder, Hong Zhou, Duane Karns, *Seagate Research, Pittsburgh, PA*

WEDNESDAY PM

SALON H/I/J

Session FB

PERMANENT MAGNET PROCESSING AND APPLICATIONS

Yuriy Zhilichev

Magnequench Technology Center, Research Triangle Park, NC

- FB-01 2:00** **Strong Magnetic Field Gradients in Layered Structures**
Herbert Leupold, *General Technical Services, Wall, NJ*
- FB-02 2:15** **The Dynamic Magnetic Field Analysis of the "V" Type NdFeB Permanent Magnetic Synchronous Motor**
Jing Shang, Jinbin Zou, *Electrical Engineering Department of Harbin Institute of Technology, Harbin, People's Republic of China*
- FB-03 2:30** **Optimal Torque Control of Fault-Tolerant Permanent Magnet Brushless Machines**
Jiabin Wang, *University of Sheffield, Sheffield, United Kingdom*

- FB-04** **Design of A Preload Device for PZT Actuators Using Permanent Magnets**
2:45 Suk Paek¹, Chang-Soo Han², Myounggyu D. Noh¹, ¹*Chungnam National University, Daejeon, Republic of Korea*, ²*Korea Institute of Materials and Machinery, Daejeon, Republic of Korea*
- FB-05** **Hysteresis Model and Magnetization of A Radially Anisotropic Magnet Ring**
3:00 Yuriy N. Zhilichev, David Miller, *Magnequench International, Durham, NC*
- FB-06** **Directional Solidification Studies on Sm₂ (Co,Cu,Fe,Zr) Magnets** 17
3:15 Wei Tang, Yong Zhang, George C Hadjipanayis, *University of Delaware, Newark, DE*
- FB-07** **Development of Improved Powder for Bonded Permanent Magnets**
3:30 Matthew J Kramer, Iver E Anderson, R William McCallum, *Ames Laboratory, Iowa State University, Ames, IA*
- FB-08** **Bulk SmCo₅/α-Fe Composites by Plasma Pressure Compaction**
3:45 Qi Zeng¹, Yong Zhang¹, Michael J Bonder¹, George C Hadjipanayis¹, R. Radhakrishnan², ¹*University of Delaware, Newark, DE*, ²*Materials Modification Inc., Fairfax, VA*
- FB-09** **TMA Study of Phase Evolution in Nd-Fe-B Material During Mechanical Milling and Annealing**
4:00 Hae-Woong Kwon, *Pukyong National University, Nam-Gu, Republic of Korea*
- FB-10** **Highly-Dense Anisotropic Sm-Fe-N-Based Bonded Magnets Including Unsaturated Polyester Prepared by Powder Compacting Press**
4:15 Akihiko Watanabe¹, Fumitoshi Yamashita¹, Hirotohi Fukunaga², ¹*Matsushita Electric, Osaka, Japan*, ²*Nagasaki University, Nagasaki, Japan*
- FB-11** **Magnetic Monitoring of the Nitriding Process in Sm-Fe-Ta-Based Alloys**
4:30 Paul John McGuinness, Kristina Zuzek Rozman, Spomenka Kobe, *Jozef Stefan Institute, Ljubljana, Slovenia*
- FB-12** **Magnetic Properties of Sm-Fe-N Thick Film Magnets Prepared by Aerosol Deposition Method**
4:45 Satoshi Sugimoto¹, Toru Maeda¹, Ryohei Kobayashi¹, Jun Akedo², Maxim Lebedev², Koichiro Inomata¹, ¹*Tohoku University, Sendai, Japan*, ²*National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*

Session FC

SYMPOSIUM: RF SOFT MAGNETIC FILMS AND PLANAR
INDUCTIVE DEVICES

Masahiro Yamaguchi

RIEC Tohoku University, Sendai, Japan

- *FC-01** **Granular Thin Films with High RF Permeability**
2:00 Yutaka Shimada¹, Sigehiro Ohnuma², Masahiro Yamaguchi³,
¹Institute for Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan, ²The Research Institute for Electric and Magnetic Materials, Sendai, Japan, ³Research Institute of Electrical Communication, Tohoku University, Sendai, Japan
- *FC-02** **Thin Film Inductor for GHz Band with CoFeSiO/SiO₂ Multi-layer Granular Films and Its Application for Power Amplifier Module**
2:30 Kenji Ikeda, Kazuyoshi Kobayashi, Kenichi Ohta, Ryuichi Kondo, Toshimasa Suzuki, Masayuki Fujimoto, *Taiyo Yuden Co. Ltd., Japan*
- *FC-03** **High-Frequency Magnetoelastic Multilayer Thin Films and Applications**
3:00 Alfred Ludwig, Michael Frommberger, M. Tewes, Eckhard Quandt, *Caesar, Bonn, Germany*
- *FC-04** **High Efficiency DC-DC Converter Chip Size Module with Integrated Soft Ferrite**
3:30 Zenchi Hayashi, Yasushi Katayama, Masaharu Edo, Haruhiko Nishio, *Device Technology Laboratory, Fuji Electric Corporate R&D Ltd., Japan*
- *FC-05** **MEMS Technology for the Fabrication of RF Magnetic Components**
4:00 Mark G. Allen, *School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA*
- *FC-06** **GHz Frequency Band Inductors with Magnetic Films and GHz Circuit Analysis Including Inductance**
4:30 A. Konrad¹, S. Tanabe², R. Jafari¹, K. Sugawara², *¹University of Toronto, Toronto, Canada, ²Mitsubishi Electric Corp., Amagasaki, Japan*

Session FD

MAGNETIC NANOPARTICLES

John Xiao

University of Delaware, Newark, DE

- *FD-01** **Synthesis, Self-Assembly, and Magnetic Properties of [FePt]_{1-x}Au_x Nanoparticles**
2:00 Shishou Kang, Zhiyong Jia, David E Nikles, J. W Harrell, *MINT Center, University of Alabama, Tuscaloosa, AL*

- FD-02** **Effect of Atomic Ordering on Magnetization Decay and Activation Volume of FePt Nanoparticles**
2:30 Hiroshi Sakuma¹, Hiroaki Nishio², Yoshitaka Kitamomto¹, Yohtaro Yamazaki¹, Hiroshi Yamamoto², ¹*Tokyo Institute of Technology, Yokohama, Japan*, ²*Meiji University, Kawasaki, Japan*
- FD-03** **Magnetic Properties of Real FePt Nanoparticle System**
2:45 Satoru Momose, *Fujitsu Laboratories Ltd., Atsugi, Japan*
- FD-04** **Agglomeration Effects in FePt Nanoparticles on Si Substrates Studied by Small Angle Neutron Scattering and Magnetometry**
3:00 Thomas Thomson¹, Stephen L Lee², Charles Dewhurst³, Feodor Y Ogrin⁴, Colin J Oates², Shouheng Sun⁵, Simone Anders¹, Bruce D Terris¹, ¹*IBM Almaden Research Center, San Jose, CA*, ²*University of St. Andrews, St. Andrews, United Kingdom*, ³*ILL, Grenoble, France*, ⁴*University of Exeter, Exeter, United Kingdom*, ⁵*IBM T. J. Watson Research Center, Yorktown Heights, NY*
- FD-05** **FePt Nanoparticles with Tailored Microstructure**
3:15 Yunhe Huang¹, J. Wan¹, Y. Zhang¹, George C Hadjipanayis¹, Deiter Weller², ¹*University of Delaware, Newark, DE*, ²*Seagate Research, Pittsburgh, PA*
- FD-06** **Iron Nanoparticles Coated with Boron Nitride Nanolayers Synthesized by A Solid Phase Reaction**
3:30 Hisato Tokoro¹, Takeo Oku², Shigeo Fujii¹, ¹*Advanced Electronics Research Laboratory, Hitachi Metals, Kumagaya, Japan*, ²*Nanoscience and Nanotechnology, Osaka University, Osaka, Japan*
- FD-07** **Magnetic Studies on Spherical Monodispersed Co Nanoparticles**
3:45 A. B. Pakhomov, Yuping Bao, M. Beerman, Kannan M. Krishnan, *Department of Materials Science, University of Washington, Seattle, WA*
- FD-08** **A Simple Method to Prepare Uniform Co Nanoparticles**
4:00 Yuwen Zhao, John Q. Xiao, *Department of Physics and Astronomy, University of Delaware, Newark, DE*
- FD-09** **Fabrication and Characterization of Cobalt Nanoparticles by IBICVD**
4:15 Ko-Wei Lin, Kyongha Kang, Takao Suzuki, *Toyota Technological Institute, Nagoya, Japan*
- FD-10** **Modifying the Nanostructure of Co[SiO₂] Samples by Controlled Annealing**
4:30 Juliano Denardin, Marcelo Knobel, Leandro Socolovsky, Ana Brandl, *UNICAMP, São Paulo, Brazil*
- FD-11** **Determining A Magnetic Percolation Threshold**
4:45 Alexa W Harter, Greg Mohler, David C Maybury, John W Schultz, Rick L Moore, *Georgia Tech Research Institute, Atlanta, GA*

Session FE
MAGNETIC RECORDING PHYSICS I

Tom Arnoldusson
IBM, San Jose, CA

- *FE-01** **Measurement of the Anisotropy Field Dispersion in Perpendicular Media Using Complex Transverse AC Susceptibility**
2:00
Ganping Ju, Roy Chantrell, Hong Zhou, Dieter Weller, Bin Lu, *Seagate Research, Pittsburgh, PA*
- FE-02** **Dynamic Switching in Magnetic Recording**
2:30
Kai-Zhong Gao, H. Neal Bertram, *Center for Magnetic Recording Research, La Jolla, CA*
- FE-03** **Structural Design of Normalized Slope of M-H Loops and Coercive Force for Perpendicular Recording Media**
2:45
Atsushi Nakamura¹, Masukazu Igarashi¹, Miki Hara¹, Yutaka Sugita², ¹*CRL, Hitachi, Ltd., Tokyo, Japan*, ²*Tohoku Institute of Technology, Sendai, Japan*
- FE-04** **Low Noise Mechanism in Exchange Coupled Perpendicular Magnetic Recording Media**
3:00
Naoki Honda, Takashi Komakine, Kazuhiro Ouchi, *Akita Research Institute of Advanced Technology, Akita, Japan*
- FE-05** **An Analytical Model for the Cross-Track Correlation Length Including Finite Grain Size and Inter-Granular Interactions**
3:15
Zhen Jin, Xiaobin Wang, H. Neal Betram, *UCSD, La Jolla, CA*
- FE-06** **Measurement and Analysis of Transition Noise in Perpendicular Media**
3:30
Chengjiang Fu, *UCSD, La Jolla, CA*
- FE-07** **The Role of SUL in Readback and Linear Density Limitation Imposed**
3:45
Jian-Gang Zhu¹, Daniel Bai¹, Adam Torabi², ¹*Carnegie Mellon University, Pittsburgh, PA*, ²*Maxtor Corp., Shrewsbury, MA*
- FE-08** **Magnetic Film Thickness Effects on the Recording Performance**
4:00
Jianping Chen, *Seagate Technology, Fremont, CA*
- FE-09** **Performance Analysis of Recording System with Tilted Head Field and Perpendicular Media**
4:15
Yaying Zou, Chinghian Hee, Towchong Chong, Jianping Wang, *Data Storage Institute, Singapore, Singapore*
- FE-10** **Analytical Expression for Readback Signal Produced by A GMR Read Sensor Passing Over A Slanted Magnetic Transition**
4:30
John Andrew Gamble, Eric Charles Hughes, William Charles Messner, *Carnegie Mellon University, Pittsburgh, PA*

FE-11 GMR Head Side-Reading and Bit Aspect Ratio
4:45 Kurt Wiesen, Bill Cross, *Maxtor Corp., Longmont, CO*

WEDNESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

Session FP
COMPUTATIONAL MAGNETISM

Can Korman

The George Washington University, Washington, DC

- FP-01 Essential of the Moving Coordinate Method: A Covert Upwind Method**
Dezhi Chen¹, K. R. Shao¹, J. D. Lavers², ¹*Huazhong University of Sci. & Tech., Wuhan, People's Republic of China*, ²*University of Toronto, Toronto, Canada*
- FP-02 New Expressions for Calculating the Magnetic Force of the System: Filament Coil-Disk Coil**
Cevdet Akyel¹, Slobodan Babic¹, Sheppard Salon², ¹*Ecole Polytechnique de Montreal, Montreal, Canada*, ²*RPI, Troy, NY*
- FP-03 Development of Integral Equation Solution for 3D Eddy Current**
Omun Kwon¹, M. V. K Chari¹, Sheppard Joel Salon¹, Kiruba Sivasubramaniam², ¹*Rensselaer Polytechnic Institute, Troy, NY*, ²*CRD, GE, Schenectady, NY*
- FP-04 Analysis and Optimized Design of Magnet for Micro SMES with Multiple Parallel Solenoids**
K. R. Shao¹, S. L. Huang¹, S. J. Cheng¹, J. D. Lavers², ¹*Huazhong University of Sci. & Tech., Wuhan, People's Republic of China*, ²*University of Toronto, Toronto, Canada*
- FP-05 Combined MLS and RSM Approach for HDD Spindle Motor Robust Design**
Xianke Gao, *Data Storage Institute, Singapore, Singapore*
- FP-06 The Weighted Wavelet-Based Multiresolution Time-Domain Analysis in the MOM for Transient Eddy Current Problems**
K. R. Shao¹, J. D. Lavers², ¹*Huazhong University of Sci. & Tech., Wuhan, People's Republic of China*, ²*University of Toronto, Toronto, Canada*
- FP-07 Prediction of the Electromechanical Faults in A Single Phase Squirrel Cage Induction Motor**
Gunhee Jang, Sangjin Park, *Department of Precision Mechanical Engineering, Hanyang University, Seoul, Republic of Korea*
- FP-08 Time Stepping Finite Element Analysis for the Dynamic Performance of A Permanent Magnet Synchronous Motor**
Jing Dong¹, M. A. Jabbar¹, Zhejie Liu², ¹*National University of Singapore, Singapore, Singapore*, ²*Data Storage Institute, Singapore, Singapore*

FP-09 Semi-Analytical Method with Cylindrical Elements in Electromagnetic Field Visualization

Hisashi Endo, Yasuyuki Watazawa, Seiji Hayano, Yoshifuru Saito, *Hosei University, Tokyo, Japan*

FP-10 Reduced-Basis Finite Element Method for Torque Optimization of Small Spindle Motors

Azmi Azeman, M. A. Jabbar, *National University of Singapore, Singapore, Singapore*

WEDNESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

Session FQ

MAGNETIC MULTILAYERS AND THIN FILMS I

Fernando Castaño

MIT, Cambridge, MA

FQ-01 Magnetic Properties of Thermally Annealed $(\text{Ni}_{80}\text{Fe}_{20})_{1-x}\text{Mn}_x$ Thin Films

Chong Seung Yoon, Sung Jun Kim, Suk Jun Kim, T. Y. Byun, C. K. Kim, *Hanyang University, Seoul, Republic of Korea*

FQ-02 Magnetic Properties of FePt/MgO Granular Thin Films

C. C. Shen, J. C. Shih, T. S. Chin, *Department of Materials Science and Engineering, Hsinchu, Taiwan*

FQ-03 Effect of Post Deposition Annealing on the Hysteresis Loops of Sputtered NdFeB Film

Thanassis Speliotis¹, Dimitris Niarchos¹, Vassil Skumryev², George Hadjipanayis², ¹*IMS, NCSR Demokritos, Athens, Greece*, ²*University of Delaware, Newark, Delaware*

FQ-04 Magnetic Switching of Nb/Ni Near the Superconducting Critical Temperature

Sergey Kryukov¹, Lance E. DeLong¹, Elena Navarro², Javier E. Villegas², Elvira M. Gonzalez², Jose L. Vicent², ¹*University of Kentucky, Lexington, KY*, ²*Universidad Complutense, Madrid, Spain*

FQ-05 CVD Synthesis and CEMS Study of Fe Sulphide and Oxide Thin Films

Mircea Serban Rogalski, Valentim Besserguenev, Nuno Rafael Barata, Raul Baltazar, *University of Algarve, Faro, Portugal*

FQ-06 Electrodeposited FePt Films

Fernando M. F. Rhen, G. Hinds, C. O'Reilly, J. M. D. Coey, *Trinity College, Dublin, Ireland*

FQ-07 Hardening and Application of FePt Buffer Layers

Ingo Rohde, Tobias Hempel, Sonja Heitmann, Andreas Hütten, Günter Reiss, *University of Bielefeld, Bielefeld, Germany*

- FQ-08** **The Magnetic and Structural Properties of Pulsed Laser Deposited Epitaxial CoFe_2O_4 and $\text{CoFe}_2\text{O}_4/\text{CoFe}_2$ Bilayer Films**
C. M. Williams, A. Lisfi, H. Corcoran, A. Johnson, E. Kannan,
Department of Physics, Morgan State University, Baltimore, MD
- FQ-09** **Magnetization and Curie Temperature of MnZn Ferrite Thin Films Deposited by Sputtering**
Toshikazu Tanaka, *Toba National College of Maritime Technology, Toba, Japan*
- FQ-10** **Ta Doping Effect on $\text{Co}_{60}\text{C}_{40}$ Thin Films**
Yan Zhao¹, Tiejun Zhou¹, Jianping Wang², Towchong Chong¹,
¹*Data Storage Institute, Singapore, Singapore*, ²*The Center for Micromagnetics and Information Technologies, Singapore, Singapore*
- FQ-11** **Interplay of Microstructure and Magnetic Properties in Epitaxially Grown $\text{Co}_{35}\text{Pd}_{65}$ Films on Cu/Si(100)**
Jong-Ryul Jeong, Sung-Chul Shin, *KAIST, Daejeon, Republic of Korea*
- FQ-12** **in-Situ Brillouin Scattering Investigation of Spin-Waves During the FCC to BCC Transition of Fe/Cu(100) Films**
Giovanni Carlotti, Gianluca Gubbiotti, Marco Madami, Giovanni Socino, Silvia Tacchi, *Istituto Nazionale Fisica della Materia, Universita' di Perugia, Perugia, Italy, Perugia, Italy*
- FQ-13** **Sub-Milli-Torr Magnetron Sputter Deposition of Magnetic Thin Films**
Ming Mao¹, Jinsong Wang¹, Chih-Ling Lee², Adrian J. Devasahayam², Jacques C.S. Kools¹, Tom Schneider¹, Ken Lam¹,
¹*Veeco Instruments Fremont, Fremont, CA*, ²*Veeco Instruments Rochester, Rochester, NY*
- FQ-14** **Relaxation in Epitaxial Fe Films by Ferromagnetic Resonance**
Bijoy K Kuanr¹, R. E. Camley¹, Z. Celinski¹, Pavel Kabos²,
¹*Physics Dept., University of Colorado at Colorado Springs, Colorado Springs, CO*, ²*Radio-Frequency Technology Division, NIST, Boulder, CO*

WEDNESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

Session FR

MAGNETOCHEMISTRY AND MAGNETISM IN THE LIFE SCIENCES

John NyenHuis

Purdue University, West Lafayette, IN

- FR-01** **Development of A High Resolution Squid Magnetometer for Biomagnetic Measurement**
Koichiro Kobayashi¹, Yoshinori Uchikawa², ¹*Department of Welfare Engineering, Iwate University, Morioka, Japan*, ²*Faculty of Science and Engineering, Tokyo Denki University, Hiki-gun, Japan*

- FR-02 Temperature Distribution of Excitation From the Outside the Body Utilizing Hybrid Heaters for Hyperthermia**
Junichi Shimizu¹, Fumihiko Sato¹, Hidetoshi Matsuki¹, Tadakuni Sato², Masahiko Sendoh³, Kazushi Ishiyama³, Ken Ichi Arai³,
¹Graduate School of Engineering, Tohoku University, Sendai, Japan, ²NEC Tokin Corporation, Sendai, Japan, ³Research Institute of Electrical Communication, Tohoku University, Sendai, Japan
- FR-03 S/N Improvement of Signal Transmission Coil in Transcutaneous Magnetic Telemetry System for Artificial Heart**
Tomoko Ito¹, Kuniyuki Igarashi¹, Fumihiko Sato¹, Hidetoshi Matsuki¹, Tadakuni Sato²,
¹Graduate School of Engineering, Tohoku University, Sendai, Japan, ²NEC Tokin Corp., Sendai, Japan
- FR-04 Rejection of Stimulus-Related Artifacts From Electro-Gustatory Magnetoencephalographic Signals Using Independent Component Analysis**
Sunao Iwaki¹, Chizuko Yamamoto², Shiho Takehara², Mitsuo Tonoike³, Takashi Yamamoto²,
¹NMR Center, Massachusetts General Hospital, Harvard Med. School, Charlestown, MA, ²Graduate School of Human Sciences, Osaka University, Osaka, Japan, ³Life electronics Lab., Natl. Inst. Advanced Industrial Sci. and Tech., Osaka, Japan
- FR-05 Temperature Control of SMA Artificial Anal Sphincter**
Yasuyuki Kakubari¹, Fumihiko Sato¹, Hidetoshi Matsuki¹, Tadakuni Sato², Yun Luo³, Toshiyuki Takagi³, Tomoyuki Yambe⁴, Shin-Ichi Nitta⁴,
¹Dept. of Electrical and Communication Engineering, Tohoku University, Sendai, Japan, ²NEC Tokin Corporation, Sendai, Japan, ³Institute of Fluid Science, Tohoku University, Sendai, Japan, ⁴Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan
- FR-06 Separation of Overlapping Activity in First and Second Somatosensory Evoked Fields with 3-D Meg Measurement**
Bong-Soo Kim¹, Koichiro Kobayashi², Yoshinori Uchikawa¹,
¹Tokyo Denki University, Hiki-Gun, Japan, ²Iwate University, Morioka, Japan
- FR-07 EEG Responses Evoked by Transcranial Magnetic Stimulation to the Cerebellum**
Keiji Iramina, Takashi Maeno, Shoogo Ueno, Department of Biomedical Engineering, University of Tokyo, Tokyo, Japan
- FR-08 The Effect of Transcranial Magnetic Stimulation on Long-Term Potentiation in Rat Hippocampus**
Mari Ogiue-Ikeda¹, Hirofumi Funamizu¹, Suguru Kawato², Shoogo Ueno¹,
¹Department of Biomedical Engineering, University of Tokyo, Tokyo, Japan, ²Dep. of Biophysics and Life Sciences, University of Tokyo, Tokyo, Japan

FR-09 Magnetic Resonance Imaging of Fluid Motion Associated with Electrodeposition Processes

Masaki Sekino¹, Kikuo Yamaguchi¹, Norio Iriguchi², Shoogo Ueno¹, ¹*Department of Biomedical Engineering, University of Tokyo, Tokyo, Japan*, ²*Center for Multimedia and Information Technologies, University of Kumamoto, Kumamoto, Japan*

FR-10 Source Modeling of the P300 Event Related Response Using MEG and EEG Measurements

Takashi Maeno, *Department of Biomedical Engineering, University of Tokyo, Tokyo, Japan*

WEDNESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

Session FS

NANOCRYSTALLINE/AMORPHOUS MATERIALS II

Matthew Willard

Naval Research Laboratory, Washington, DC

Horia Chiriac

National Institute of R&D for Tech Physics, Iasi, Romania

FS-01 Magnetic Behavior of Amorphous CoP Cylinder Arrays

Mutsuhiro Shima¹, Minha Hwang², Caroline A. Ross², ¹*RPI, Troy, NY*, ²*MIT, Cambridge, MA*

FS-02 Study of Magnetic Properties of Nano Size Ni Particles Synthesized by Pulsed Wire Evaporation (PWE) Method

Y. R. Uhm, J. H. Park, W. W. Kim, C. K. Rhee, *Korea Atomic Energy Research institute, Daejeon, Republic of Korea*

FS-03 Study of Magnetic Properties of Nano Cu-Fe Particles with Hetero-Structure

Y. R. Uhm, W. W. Kim, C. K. Rhee, *Korea Atomic Energy Research institute, Daejeon, Republic of Korea*

FS-04 Development and Relaxation of Creep-Induced Anisotropy in Nano-Crystalline Fe-Cu-Nb-Si-B Ribbons

Takeshi Yanai¹, Ken-Ichiro Takahashi¹, Masaki Nakano¹, Hirotoishi Fukunaga¹, Yoshihito Yosizawa², ¹*Nagasaki University, Nagasaki, Japan*, ²*Hitachi Metals, Ltd., Kumagaya, Japan*

FS-05 Phase Distribution and Magnetic Properties of Mechanically Alloyed Fe_xB_(1-x) (25 ≤ x ≤ 75)

Julian E. González¹, Carmen A. Miguel¹, Juan J. Del Val¹, Antonio M. Hernando², Jesús M. González³, ¹*Basque Country University, San Sebastian, Spain*, ²*CSIC, Madrid, Spain*, ³*IMA-CSIC, Madrid, Spain*

FS-06 Design and Preparation of New Fe-Based Bulk Amorphous Alloys Toroids for Applications

Horia Chiriac, Nicoleta Lupu, Mihai Tibu, *National Institute of R&D for Technical Physics, Iasi, Romania*

FS-07 Properties of Magnetically Soft Amorphous ND-FE-B Nanoparticles Synthesized by Chemical Reduction

Zafer Turgut¹, Vincent H Hammond², Meiqing Huang¹, John Horwath³, Richard T. Fingers³, ¹UES Inc., Dayton, OH, ²University of Dayton Research Institute, Dayton, OH, ³Air Force Research Lab, Dayton, OH

FS-08 Annealing Effect on the Magnetic Inhomogeneities Distribution in Magnetic Amorphous Wires and Microwires

Horia Chiriac, Nicoleta Lupu, *National Institute of R&D for Technical Physics, Iasi, Romania*

FS-09 Stress Dependence of Saturation Magnetostriction for Glass-Covered Amorphous Wires

Maria Neagu¹, Horia Chiriac², Cornelia Lorelai Hison³, ¹Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania, ²National Institute of Research&Development for Technical Physics, Iasi, Romania, ³Istituto Nazionale per la Fisica della Materia, Università di Napoli "Federico II", Napoli, Italy

FS-10 Effect of Tensile Stress on the Magnetic Properties of Very Thin Amorphous Glass-Coated Microwires

Sylvie Deprot, Anne-Lise Adenot, David Bois, Frédéric Bertin, Marc Ledieu, Olivier Acher, *CEA Le Ripault, Monts, France*

FS-11 Permeability Spectra of Amorphous Ferromagnetic Glass-Coated Microwires From 150K UP TO 450K

Marc Ledieu, Frédéric Schoenstein, Sylvie Deprot, Anne-Lise Adenot, Frédéric Bertin, Olivier Acher, *CEA Le Ripault, Monts, France*

FS-12 Processing of Magnetic Properties of Nearly-Zero Magnetostrictive Glass Coated Microwires by Current Annealing

Valentina Zhukova¹, Arcady Zhukov², Julian Gonzalez³, Juan Maria Blanco⁴, Manuel Vazquez², ¹TAMAG Iberica S. L., Madrid, Spain, ²Instituto de Ciencia de Materiales, CSIC, Madrid, Spain, ³Dpto. Fisica de Materiales, UPV/EHU, San Sebastian, Spain, ⁴Dpto. Fisica Aplicada I, EUITI, UPV/EHU, San Sebastian, Spain

FS-13 About the Dipolar Approach in Magnetostatically Coupled Bistable Magnetic Micro and Nanowires

Julian Velazquez¹, Manuel Vazquez², Kalis Pirota², ¹Cai Difraccion Rayos X, Facultad Ciencias Quimicas, UCM, Madrid, Spain, ²Instituto de Ciencia de Materiales, CSIC, Madrid, Spain

WEDNESDAY 1:00 PM - 5:00 PM

EXHIBIT HALL

Session FT

GMR, SPIN VALVES AND ELECTRON SPIN TRANSPORT

Bruce Gurney

IBM Almaden, San Jose, CA

- FT-01 The Effect of Oxygen As A Surfactant on Thermal Stability in CoFe/Cu Multilayers**
Amanda K Petford-Long¹, David J Larson², Alfred Cerezo¹, Yong Qing Ma¹, Heather L Brown², Jae-Young Yi², Relan K Grove², Augusto Morrone², ¹*University of Oxford, Oxford, United Kingdom*, ²*RHO Seagate Technology, Bloomington, MN*
- FT-02 Current Distribution in Spinvalve Multilayer Films Determined From in-Situ Conductance Measurements**
Andrew Thomas McCallum, Stephen E Russek, *NIST, Boulder, CO*
- FT-03 Thermal and Mn Diffusion Behaviors of CoNbZr Based Spin Valves with Nano-Oxide Layers**
Jong Soo Kim, Young Keun Kim, Seong-Rae Lee, *Korea University, Seoul, Republic of Korea*
- FT-04 Antiferromagnetically Coupled Spin Valves with Spacer Layer Thickness Down to 1 nm**
Tobias Hempel, Ingo Rohde, Inga Ennen, Andreas Hütten, Günter Reiss, *University of Bielefeld, Bielefeld, Germany*
- FT-05 Planar Hall Effects and Magnetoresistance in Co/Cu/Ni₈₀Fe₂₀ Multilayers**
Adekunle O Adeyeye, Tien An Tan, May Thu Win, *National University of Singapore, Singapore, Singapore*
- FT-06 Giant Magnetoresistance Effect of L1₀ Fe₅₀Pt₅₀ Grains**
Zhengang Zhang, Kyongha Kang, Takao Suzuki, *Toyota Technological Institute, Nagoya, Japan*
- FT-07 Non-Contact GMR Measurements of Synthetic Spin Valves Using Infrared Reflection Spectroscopy**
Marian Vopsaroiu¹, Jim A. D Matthew¹, Kevin A. McNeill², Sarah M. Thompson¹, ¹*University of York, York, United Kingdom*, ²*Seagate Technology, Londonderry, United Kingdom*
- FT-08 3D-Magnetic Structure and GMR Behavior of (FeCo)Ag Granular Films**
Mircea Serban Rogalski¹, Maria Manuela Amado², Gleb Nicolai Kakazei², Joao Bessa Sousa², ¹*University of Algarve, Faro, Portugal*, ²*University of Porto, Porto, Portugal*
- FT-09 Spin-Polarized Nanodevice for Future Information Technologies**
Sonali Mukherjee¹, Roy Chantrell¹, Xiaochun Wu², Richard Carley², James A. Bain², Kent J. Howard¹, Dmitri Litvinov¹, Sakhrat Khizroev¹, ¹*Seagate Research, Pittsburgh, PA*, ²*Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA*
- FT-10 Magnetization Configurations in Current-Induced Tunnel Junction Switching**
Yaowen Liu, Zongzhi Zhang, Paulo P. Freitas, J. L. Martins, *INESC Microsystems and Nanotechnologies, Lisbon, Portugal*

FT-11 Rashba Effect in A FM/I/2DEG/I/FM Structure

Yong Jiang¹, Mansoor B. A. Jalil², ¹*Department of Materials Science, Tohoku University, Sendai, Japan*, ²*Information Storage Materials Laboratory, National University of Singapore, Singapore, Singapore*

WEDNESDAY 7:30 PM - 10:00 PM

SALON E/F

Session FZ

**IEEE MAGNETICS SOCIETY TUTORIAL SYMPOSIUM:
WHAT'S NEW IN BIOMAGNETISM?**

Can Korman

The George Washington University, Washington, DC

THURSDAY AM

SALON B/C/D

Session GA

MAGNETIC FLUIDS II

Susan R. McKay

The University of Maine, Orono, ME

GA-01 Model for the Effect of Ramping Rate on Ferrofluid Aggregates

9:00 Marty Ytreberg¹, Susan McKay², ¹*Whitman College, Walla Walla, WA*, ²*University of Maine, Orono, ME*

**GA-02 Design and Pressure Control of High Pressure Differential
9:15 Magnetic Fluid Seals**

Jibin Zou, Jiming Zou, *Dept. of Electrical Engineering, Harbin Institute of Technology, Harbin, People's Republic of China*

**GA-03 Photoacoustic Spectroscopy: A Promising Technique to
9:30 Investigate Magnetic Fluids**

Paulo Morais¹, Aderbal Oliveira¹, Alvaro Tronconi¹, Christian Gansau², Thomas Gotze², Norbert Buske², ¹*Universidade de Brasilia, Brasilia, Brazil*, ²*Berlin Heart AG, Berlin, Germany*

**GA-04 Evidence of Long-Range Dipolar Interaction on CdFe₂O₄
9:45 Magnetic Fluids**

Joao Paulo Sinnecker¹, Osni Silva², Miguel Alexandre Novak¹, Wallace Castro Nunes¹, Luiz Carlos Sampaio³, Emilia de Oliveira Lima⁴, Paulo Morais⁵, ¹*Instituto de Fisica, Universidade Federal do Rio de Janeiro, Rio De Janeiro, Brazil*, ²*Instituto de Fisica, Universidade Federal de Góias, Goiania, Brazil*, ³*Centro Brasileiro de Pesquisas Físicas, Rio De Janeiro, Brazil*, ⁴*Instituto de Química, Universidade Federal de Góias, Goías, Brazil*, ⁵*Instituto de Física, Universidade Federal de Brasília, Brasília, Brazil*

**GA-05 Forces in Magnetic Fluids Subject to Stationary Magnetic
10:00 Fields**

Massimiliano d'Aquino, Gennaro Coppola, Giovanni Miano, Claudio Serpico, Walter Zamboni, *University of Naples, Naples, Italy*

GA-06 **Morphological Study of Saccharomyces Cerevisiae Cells Treated with Magnetic Fluid**
10:15
Ricardo Bentes Azevedo¹, Luciano Paulino Silva¹, Ana Paula Catunda Lemos¹, Sonia Nair Bao¹, Zulmira Guerrero Lacava¹, Ivo Safarik², Mirka Safarikova², Paulo Cesar Morais¹, ¹*University of Brasília, Brasília, Brazil*, ²*Institute of Landscape Ecology, Ceske Budejovice, Czech Republic*

GA-07 **Yield Stress in A Fluidized Bed Stabilized with A Compound Magnetic Field**
10:30
Mihaela Atodiresei, Vasile Badescu, *Institute of Technical Physics, NIRDTP, Iasi, Romania*

THURSDAY AM

SALON H/I/J

Session GB
MAGNETIC SENSORS II

James Horn
MITRE Corporation

GB-01 **Analytical and Micromagnetic Modeling for Detection of A Single Magnetic Microbead Or Nanobead by Spin Valve Sensors**
9:00
Guanxiong Li, Shan X Wang, *Stanford University, Stanford, CA*

GB-02 **Study of Curie Temperature of Cobalt Ferrite Based Composites for Stress Sensor Applications**
9:15
John E. Snyder, Jason A. Paulsen, Andrew P. Ring, Jeffrey S. Leib, Chester C.H. Lo, David C. Jiles, *Ames Laboratory, Iowa State University, Ames, IA*

GB-03 **Control of Temperature Response for A Magnetoelastic Sensor with Magnetic Field Tuning**
9:30
Keat Ghee Ong¹, Casey S Mungle², Craig A Grimes², ¹*SenTech Corporation, State College, PA*, ²*PennState University, University Park, PA*

***GB-04** **Magnetic Micro-Actuators & Systems (MAGMAS)**
9:45
Orphée Cugat, Jérôme Delamare, Gilbert Reyne, *Laboratoire d'Electrotechnique de Grenoble, Grenoble, France*

GB-05 **Stress Controlled Magnetic Switching for GMR and TMR Applications**
10:15
Wouter Eyckmans, Liesbet Lagae, Pol Van Dorpe, Jo Das, Gustaaf Borghs, Jo De Boeck, *IMEC, Leuven, Belgium*

GB-06 **Preparation and Characterization of Thin Film Fluxgate Sensors**
10:30
Kai Kuchenbrandt, Frank Ludwig, Kerstin Franke, Meinhard Schilling, *TU Braunschweig, Braunschweig, Germany*

GB-07 **Micromagnetic Design and Fabrication of Low Hysteresis Linear Spin Valve Sensors**
10:45
Zhenghong Qian, James Daughton, Dexin Wang, Mark Tondra, *NVE Corporation, Eden Prairie, MN*

- GB-08** **Application of ECT Technique for Inspection of Bare PCB**
11:00 Sotoshi Yamada¹, Kazunori Nakamura¹, Masayoshi Iwahara¹,
Tetsuki Taniguchi², Hiroyuki Wakiwaka³, ¹*Kanazawa University,*
Kanazawa, Japan, ²*The University of Electro-Communications,*
Chofu, Japan, ³*Shinshu University, Wakasato, Japan*
- GB-09** **Water Molecule Self-Organization and Proton Transport**
11:15 **Triggered with Milli-Gauss, ULF AM Magnetic Field Cyclotron**
Resonance
K. Mohri¹, M. Fukushima², ¹*Nagoya University, Nagoya, Japan,*
²*Kyoto University, Kyoto, Japan*
- GB-10** **Measurement of Visually Evoked Magnetic Fields Associated**
11:30 **with Pattern Recognition**
Shiann-Fong Huang¹, Keiji Iramina¹, Masato Yumoto², Shoogo
Ueno¹, ¹*Department of Biomedical Engineering, University of*
Tokyo, Tokyo, Japan, ²*Department of Laboratory Medicine,*
University of Tokyo, Tokyo, Japan
- GB-11** **Frequency Output Type MI Magnetic Sensor Using Amorphous**
11:45 **Wire CMOS Multivibrator**
C. M. Cai, K. Usami, K. Mohri, M. Hayashi, *Nagoya University,*
Nagoya, Japan

THURSDAY AM

SALON E

Session GC
PATTERNED FILMS

Vitali Metlushko
University of Illinois, Chicago, Chicago, IL

- GC-01** **Direct Observation of Magnetostatic Coupling of Permalloy**
9:00 **Chain Arrays**
Xiaobin Zhu¹, Peter Grutter¹, Vitali Metlushko², ¹*McGill University,*
Montreal, Canada, ²*University of Illinois at Chicago, Chicago, IL*
- GC-02** **Single Domain Observation and Spin Switching Behavior of**
9:15 **Microfabricated Synthetic Antiferromagnets with Low Aspect**
Ratios
Nobuki Tezuka¹, Kazutaka Sakurada¹, Nobuyuki Koike¹, Koichiro
Inomata², ¹*Tohoku University, Sendai, Japan,* ²*CREST-JST, Tohoku*
University, Sendai, Japan
- GC-03** **Magnetic Properties of FePt Circular Dots**
9:30 Olga Kazakova¹, Maj Hanson¹, Erik B. Svedberg², ¹*Chalmers*
University of Technology, Gothenburg, Sweden, ²*Seagate*
Technology, Pittsburg, PA
- GC-04** **Nano-Scale CoCrPt/Ti Dots with Out-of-Plane Magnetization**
9:45 **Fabricated by Electron Beam Lithography**
V. Ng, X. Y. Su, *National University of Singapore, Singapore,*
Singapore

- GC-05 SP-SEM Observation of Circular Permalloy Disks**
10:00 Yoshiki Yamada, Motonori Nakamura, Kazuhisa Sueoka, Koichi Mukasa, *Nanoelectronics Laboratory, Hokkaido University, Sapporo, Japan*
- GC-06 Magnetization Reversal in Sub-Micron Nanoring Arrays**
10:15 Fernando J. Castaño¹, Caroline A. Ross¹, Cathrine Frandsen², Dario Gil³, Henry I. Smith³, ¹*DMSE, MIT, Cambridge, MA*, ²*Technical University of Denmark, Lyngby, Denmark*, ³*NSL, MIT, Cambridge, MA*
- GC-07 Spin Wave Wells with Multiple States Created in Small Magnetic Elements**
10:30 Christian Bayer¹, Sergej O. Demokritov¹, Burkard Hillebrands¹, Andrei N. Slavin², ¹*Physics Department, University Kaiserslautern, Kaiserslautern, Germany*, ²*Department of Physics, Oakland University, Rochester, MI*
- GC-08 Spin-Wave Spectra in Nanometric Elliptical Dots Array**
10:45 Giovanni Carlotti¹, Gianluca Gubbiotti¹, Paolo Vavassori², Olga Kazakova³, Maj Hanson³, ¹*INFN, Dipartimento di Fisica, Universita' di Perugia, Perugia, Italy*, ²*INFN, Dipartimento di Fisica, Universita' di Ferrara, Ferrara, Italy*, ³*Department of Experimental Physics, Gothenburg, Sweden*
- GC-09 Spin Modes in A Tangentially Magnetized Elliptical Dot**
11:00 Roberto Zivieri, Federico Montoncello, Loris Giovannini, Fabrizio Nizzoli, *Department of Physics, University of Ferrara, Ferrara, Italy*
- GC-10 Magnetic Properties of CoCrPt Thin Films on SEL-Assembled PS-PVP Diblock Copolymer Template**
11:15 Jong-Ryul Jeong, Myung Chul Choi, Mi-Young Im, Mahn Won Kim, Sung-Chul Shin, *KAIST, Daejeon, Republic of Korea*
- GC-11 Nickel Nanowire Arrays Based on Imprint Lithography**
11:30 Kornelius Nielsch¹, Jinsub Choi², Riccardo Hertel², Ralf B. Wehrspohn², David Navas³, Manuel Vaquez³, Sonia Melle⁴, Gaspar Armelles⁴, Saskia F. Fischer⁵, Ulrich Goesele², ¹*Massachusetts Institute of Technology, Cambridge, MA*, ²*Max Planck Institute of Microstructure Physics, Halle, Germany*, ³*Instituto de Ciencia de Materiales de Madrid, CSIC, Cantoblanco, Spain*, ⁴*Instituto de Microelectrónica de Madrid, CSIC, Tres Cantos, Spain*, ⁵*Ruhr Universität Bochum, Bochum, Germany*
- GC-12 Thermally Activated Switching of Small Magnetic Tunnel Junctions**
11:45 Rainer Leuschner¹, Vlad Korenivski¹, Michael Rooks², Eugene O'Sullivan², Gwen Wright², Philip Trouilloud², Wolfgang Raberg¹, Yu Lu², ¹*Infineon Technologies, Hopewell Jct., NY*, ²*IBM, Yorktown Heights, NY*

Session GD
MAGNETIC TUNNEL JUNCTIONS II

Jagadeesh Moodera

Francis Bitter Magnet Lab, MIT, Cambridge, MA

- GD-01 Study of MR in Fe₃O₄ Tunnel Junctions**
9:00 Chando Park¹, Yiming Shi², Yingguo Peng², Katayun Barmak¹, Robert M White², ¹*Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA*, ²*Department of Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA*
- GD-02 Proposal and Analysis of A Ferromagnetic Triple-Barrier Resonant-Tunneling Spin Filter**
9:15 Tetsuya Uemura, Takao Marukame, Masafumi Yamamoto, *Hokkaido University, Sapporo, Japan*
- GD-03 Spin Dependent Tunneling Junctions with Superparamagnetic Sensing Layers**
9:30 Dexin Wang, James M. Daughton, Zhonghong Qian, Mark Tondra, Cathy Nordman, *NVE Corporation, Eden Prairie, MN*
- GD-04 Spin-Polarized Tunneling in Ultrasmall Vertical Ferromagnetic Tunnel Junctions: Effect of Coulomb Blockade**
9:45 Satoshi Haraichi, Toshimi Wada, *National Institute of Advanced Industrial Science and Technology, Tsukuba-Shi, Japan*
- GD-05 Degradation and Breakdown of Plasma Oxidized Magnetic Tunnel Junctions: Single Trap Creation in Al₂O₃ Tunnel Barriers**
10:00 Jo Das¹, R. Degraeve¹, H. Boeve², F. Vanhelmont², G. Groeseneken¹, G. Borghs¹, Jo De Boeck¹, ¹*IMEC, Leuven, Belgium*, ²*Philips Research, Eindhoven, The Netherlands*
- GD-06 Current Induced Switching of Magnetic Tunnel Junctions**
10:15 Roman Adam, *Forschungszentrum Julich, Julich, Germany*
- GD-07 Spin Dependent Transport Phenomena in the NiFe/AlO/Cu/AlO/NiFe Double Tunnel Junctions**
10:30 Jun Hayakawa¹, Kenchi Itou¹, Masahiko Ichimura², Akimasa Sakuma³, ¹*Central Research Laboratory, Hitachi, Ltd., Tokyo, Japan*, ²*Advanced Research Laboratory, Hitachi, Ltd., Saitama, Japan*, ³*Hitachi Metals, Ltd., Saitama, Japan*
- GD-08 Magnetoresistance Modulation in Single-Electron Transistors**
10:45 Mansoor B. A. Jalil, *Information Storage Materials Laboratory, Singapore, Singapore*
- GD-09 MgAlO_x Barriers for Low-Resistance Tunnel-Valve Sensors**
11:00 Jeffrey R Childress¹, Michael K Ho¹, Robert E Fontana¹, Markus M Schwickert², Yongho S Ju¹, Bruce A Gurney¹, ¹*IBM Almaden Research Center, San Jose, CA*, ²*IBM Storage Technology Division, San Jose, CA*

GD-11 11:15 **Temperature and Bias Voltage Dependence of CoFe/ AlO_x/ Py/ AlO_x/ CoFe Double Barrier Junctions**

Andy Thomas, Hubert Brueckl, Jan Schmalhorst, Guenter Reiss, *University of Bielefeld, Bielefeld, Germany*

GD-12 11:30 **Spin-Resolved Photoemission Through An Oxide Barrier: the Polarization of NiMnSb/MgO(001) and Fe/MgO(001) Interfaces**

Stéphane Andrieu¹, Murielle Sicot¹, Pascal Turban¹, Yannick Fagot-Révurat¹, Alberto Tagliaferri², Celine De Nadai², Nicholas Brookes³, ¹*Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*, ²*ESRF, Grenoble, France*

THURSDAY AM

SALON G

Session GE
HEAD/MEDIA INTERFACE II

Frank Talke

CMRR, University of California, San Diego, CA

GE-01 9:00 **A Kinetic Model of Magnetic Media Oxidation**

Michael J Stirniman, Gunter Barth, Kueir-Weei Chour, Xiaoding Ma, Jing Gui, Roger Shih, *Seagate Technology LLC, Fremont, CA*

GE-02 9:15 **Monte Carlo Simulation of Film Morphology of Carbon Overcoat**

Xiaoding Ma, Michael Joseph Stirniman, Jing Gui, *Seagate, Fremont, CA*

GE-03 9:30 **Spreading Characteristics of Cyclotriphosphazine-Terminated Perfluoropolyether Films on Carbon Surfaces**

Norio Tagawa¹, Tadao Tateyama¹, Atsunobu Mori¹, Nagayoshi Kobayashi², Yasunobu Fujii², ¹*Kansai University, Osaka, Japan*, ²*Matsumura Oil Research Corp., Kobe, Japan*

GE-04 9:45 **Development of the Mixed Nanolubricant System by the FDTS Islands and PFPE Mobile Phase**

Junho Choi, Takahisa Kato, *National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*

GE-05 10:00 **A Model for Lubricant Flow From Disk to Slider**

Bruno Marchon¹, Qing Dai¹, Tom Karis¹, Rimmelt Pit², ¹*IBM Research, San Jose, CA*, ²*IBM Storage Technology Division, San Jose, CA*

GE-06 10:15 **Toward An Understanding of Corrosion and Overcoat Protection**

Qing Dai¹, Bing Yen¹, Bruno Marchon¹, Richard White², Philippe Peterson², ¹*IBM Almaden Research Center, San Jose, CA*, ²*IBM Storage Technologies, San Jose, CA*

GE-07 10:30 **Fiber Wobbling Shear Force Measurement for Nanotribology of Molecular Thin Lubricant Film**

Shintaro Itoh, Kenji Fukuzawa, Yasunaga Mitsuya, *Nagoya University, Nagoya, Japan*

- GE-08** **Surface Roughness and Fluid Bridge Formation of Ultrathin Liquid Films of Perfluoropolyethers on Solid Surfaces - Effect of Polar Interaction**
10:45 Mohammed Sajjad Mayeed, Takahisa Kato, *National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*
- GE-09** **Time Evolution of Lubricant-Slider Dynamic Interactions**
11:00 Qing Dai, Bernhard Knigge, Bruno Marchon, *IBM Almaden Research Center, San Jose, CA*
- GE-10** **Study of Head-Disk Interference at Low Flying Height**
11:15 Z. Fred Li, Chao-Yuan Chen, Jia-J Liu, *MMC Technology/Maxtor, San Jose, CA*

THURSDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session GP
HEAD/MEDIA INTERFACE III

Judy Lin
 Komag, Inc., San Jose, CA

- GP-01** **Spacing Loss Induced by Disk Flutter and Clamping Distortion**
 Ka Wei Ng, Zhimin Yuan, Bo Liu, *Data Storage Institute, Singapore, Singapore*
- GP-02** **Air-Bearing Design Based on Global Approximation Concepts**
 Sang-Joon Yoon, Seok-Hun Kim, Dong-Hoon Choi, *iDOT center, Seoul, Republic of Korea*
- GP-03** **Slider-Lubricant Interactions for Low Flying Sliders**
 Saurabh K Deoras, Frank E Talke, *University of California, San Diego, La Jolla, CA*
- GP-04** **Precise Calibration of the Sub-10nm Flying Height of Slider by Using Bump Response Method**
 Jun Zhang¹, Gang Sheng², *¹Data Storage Institute, Singapore, Singapore, ²CMA Electronics, Anaheim, CA*
- GP-05** **A Study of the Lubricant Displacement Under A Flying Head Slider Caused by Slider-Disk Interaction**
 Takeshi Watanabe¹, David B Bogy², *¹Fuji Electric, Matsumoto, Japan, ²U. C. Berkeley, Berkeley, CA*
- GP-06** **Flying-Height Adjustment of A Magnetic Head Slider with A Piezoelectric Micro-Actuator**
 Masayuki Kurita¹, Ryuuji Tsuchiyama¹, Mikio Tokuyama¹, Junguo Xu¹, Yasuhiro Yoshimura¹, Hidekazu Kohira², Lizhi Su³, Koji Kato³, *¹Mechanical Engineering Research Laboratory, Hitachi, Ltd., Tsuchiura, Japan, ²Data Storage Systems Division, Hitachi, Ltd., Odawara, Japan, ³Department of Mechatronics and Precision Engineering, Tohoku University, Sendai, Japan*

- GP-07 Contact Burnishing for Head Wear Reduction**
Shinichi Miyazawa, Youichi Kawakubo, Kenjirou Nagata, Shinichi Kobatake, *Shinshu University, Naganoshi, Japan*
- GP-08 The CSS Performance for Lightly Textured Disks**
Tze-Chi Charlie Hsu, Shin-Che Tzeng, *Yuan-Ze University, Tao-Yuan, Taiwan*
- GP-09 A Study of Friction Properties of ZDOL on Magnetic Disk Surface**
Masahiro Kawaguchi¹, Junho Choi², Takahisa Kato², Koichi Tanaka¹, ¹*Nagaoka University of Technology, Nagaokashi, Japan*, ²*National Institute of Advanced Industrial Science and Technology, Tsukubashi, Japan*
- GP-10 Dry Etching of AlTiC with CF₄ and H₂ for Slider Fabrication**
Mingsheng Zhang, Yuet Sim Hor, Guchang Han, Bo Liu, *Data Storage Institute, Singapore, Singapore*
- GP-11 Characteristics of Dual Lubricant Layers**
Tomonori Katano¹, Mineo Oka¹, Shinichi Nakazawa², Tatsuro Aramaki¹, Kazuhiro Kusakawa¹, ¹*Fuji Electric Corporate Research and Development, Ltd., Nagano, Japan*, ²*Fuji Electric Storage Device Co., Ltd., Nagano, Japan*
- GP-12 The Surface Coverage Effect on the Frictional Properties of Patterned PFPE Nanolubricant Films in HDI**
Junho Choi¹, Masahiro Kawaguchi², Takahisa Kato¹, ¹*National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*, ²*Nagaoka University of Technology, Nagaoka, Japan*
- GP-13 Effect of Disjoining Pressure on Disk-to-Head Lube Transfer**
Martin Jay Smallen, Ward Huang, *Western Digital, San Jose, CA*

THURSDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session GQ

PERMANENT MAGNET APPLICATIONS AND DEVICES

Herbert Leupold

General Technical Services, Cooperstown, NY

- GQ-01 Modelling and Optimization of the Magnetic Circuit of A Mobile Nuclear Magnetic Resonance Device for Magnetic Resonance Imaging**
Hartmut Popella, *Department of Electrical Machines, Aachen, Germany*
- GQ-02 Three Dimensional Characteristic Analysis of Micro BLDC Motor According to Slotless Winding Shape**
Jin Hur, In-Soung Jung, Ha-Gyeong Sung, Soon-Sup Park, *Korea Electronic Technical Institute, Puchon, Republic of Korea*

- GQ-03 Performance of Halbach Magnetised Brushless AC Motor**
 Z. Q. Zhu¹, Z. P. Xia¹, Y. F. Shi¹, D. Howe¹, A. Pride², X. J. Chen²,
¹University of Sheffield, Sheffield, United Kingdom, ²U. K. Research
 Center, IMRA Europa S. A., Brighton, United Kingdom
- GQ-04 Design of Permanent Magnets to Avoid Chaos in PM Synchronous Machines**
 Yuan Gao, *Department of Electrical & Electronic Engineering, The
 University of Hong Kong, Hong Kong, Hong Kong*
- GQ-05 Magnetic Equivalent Circuit of PM Hysteresis Synchronous Motor**
 Ruifeng (Ray) Qin¹, M. A. Rahman², ¹Robert Bosch Corporation,
 Waltham, MA, ²Memorial University of Newfoundland, St. John's,
 Canada
- GQ-06 A Novel Stator Doubly Fed Doubly Salient Permanent Magnet Brushless Machine**
 K. T. Chau¹, J. Z. Jiang², Yong Wang¹, ¹University of Hong Kong,
 Hong Kong, Hong Kong, ²Shanghai University, Shanghai, People's
 Republic of China
- GQ-07 Bridge Optimization of Interior Permanent Magnet Motor for Hybrid Electric Vehicle**
 Kab-Jae Lee¹, Ki-Chan Kim¹, Sol Kim², Ju Lee², ¹Hyundai Heavy
 Industry Co., Yongin, Republic of Korea, ²Hanyang University,
 Seoul, Republic of Korea
- GQ-08 Development of Magnetic Attachments for Dental Implants**
 Kazuo Arai, Yoshinobu Honkura, *Aichi Steel Corporation, Tokai-
 Shi, Japan*
- GQ-09 Comparison of Three Types of Permanent Magnet Linear Eddy Current Brake According to Magnetization Pattern**
 Seok Myeong Jang, Sung Ho Lee, *Dept. of Electrical Engineering,
 Chungnam National University, Daejeon, Republic of Korea*
- GQ-10 Design and Analysis of Helical Motion Permanent Magnet Motor with Cylindrical Halbach Array**
 Seok Myeong Jang, Sung Ho Lee, *Dept. of Electrical Engineering,
 Chungnam National University, Daejeon, Republic of Korea*
- GQ-11 Optimum Tooth-Geometry for Specific Performance Requirements of A Hybrid Stepper Motor**
 K. R. Rajagopal, B. Singh, B. P. Singh, *Indian Institute of
 Technology, New Delhi, India*
- GQ-12 Design of A Compact Hysteresis Motor Used in A Gyroscope**
 K. R. Rajagopal, *Indian Institute of Technology, New Delhi, India*
- GQ-13 Development of Permanent Magnet Systems for Magnetic Resonance Imaging**
 Hang Guo¹, Zengren Dong², Dexi Zhao², Kan Chen², Xiaobin
 Zhang², ¹School of Electrical and Computer Engineering, Cornell
 University, Ithaca, NY, ²Institute of Electrical Engineering, Chinese
 Academy of Sciences, Beijing, People's Republic of China

Session GR
MAGNETIC RECORDING PHYSICS II

Kurt Wiesen

Maxtor Corporation, Longmont, CO

- GR-01** **Transition Percolation and Medium Noise for Perpendicular Double Layered Media**
Mitsuhiro Hashimoto, Kenji Miura, Hiroaki Muraoka, Hajime Aoi, Yoshihisa Nakamura, *RIEC, Tohoku University, Sendai, Japan*
- GR-02** **Dependence of Thermal Decay on Intergranular Exchange Stiffness of Perpendicular Magnetic Recording Media**
Eiichi Miyashita, Nobuhiko Funabasi, Ryo Taguchi, Takahiko Tamaki, Yoshihiro Fujita, *NHK, Tokyo, Japan*
- GR-03** **Adjacent Track Erasure Analysis and Modeling at High Track Density**
Zhihao (George) Li¹, Gene M Sandler¹, Eric Champion¹, Shaoping Li², ¹*Seagate Technology, Longmont, CO*, ²*Seagate Technology, Bloomington, MN*
- GR-04** **Analysis of Spectra in Reverse Overwrite**
Shaoping Li, Huaan Zhang, Philip Steiner, *Seagate Technology LLC, Bloomington, MN*
- GR-05** **Investigation of Perpendicular Write Head with Side Shields Using A Hybrid Recording System Model**
Jonathan D Hannay, Sharat Batra, Gregory J Parker, Thomas A Roscamp, *Seagate Technology, Pittsburgh, PA*
- GR-06** **Exact Analytical Expression for Medium Field From Perpendicular Medium**
Yoshio Suzuki, *Hitachi Central Research Laboratory, Kokubunji, Japan*
- GR-07** **Experimental Study of Reader Nonlinearity in Perpendicular Recording Using Pseudorandom Sequences**
Wenzhong Zhu, David Kaiser, Dean Palmer, *Seagate, Bloomington, MN*
- GR-08** **Classical Spin As A Nonlinear Damped Oscillator**
Andrei Khapikov, *Read-Rite Corporation, Fremont, CA*

Session GS
MAGNETIC SENSORS III

Craig Grimes

The Pennsylvania State University, University Park, PA

Frank Wang

London Metropolitan University, London, United Kingdom

- GS-01 Design Optimization of Switched Reluctance Motor by Electromagnetic and Thermal Finite Element Analysis**
Wei Wu, John B Dunlop, Stephen J Collocott, *CSIRO Telecommunications & Industrial Physics, Sydney, Australia*
- GS-02 Design and Analysis of A Mini Linear Actuator for Optical Disk Drive**
Joon Hyuk Park, Yoon Su Baek, *Dept. of Mechanical Engineering, Yonsei University, Seoul, Republic of Korea*
- GS-03 Magnet Topology Optimization to Reduce Harmonics in High Speed Axial Flux Generators**
Tareq S El-Hasan¹, Patrick Chi-Kwong Luk², ¹*Hertfordshire University, Hatfield, United Kingdom*, ²*Cranfield University, Shrivenham, United Kingdom*
- GS-04 Increasing of Output Power Capability in A Six-Phase Flux-Weakened Permanent Magnet Synchronous Motor with A Third Harmonic Current Injection**
Bojan Stumberger, Gorazd Štumberger, Anton Hamler, Mladen Trlep, Marko Jesenik, Viktor Goričan, *Faculty of EE&CS, University of Maribor, Maribor, Slovenia*
- GS-05 A Magnetic Associative Memory Based on Diagonal Storage**
Frank Zhigang Wang, *London Metropolitan University, London, United Kingdom*
- GS-06 Nondestructive Detection of Cracks in A Distribution Line by Evaluating Magnetic Field Distribution**
Takashi Nonaka¹, Hideyuki Yoshimi¹, Fumihiro Sato¹, Hidetoshi Matsuki¹, Tadakuni Sato², ¹*Graduate School of Engineering, Tohoku University, Sendai, Japan*, ²*NEC Tokin Corporation, Sendai, Japan*
- GS-07 A Permanent Magnet Based Device for Active Magnetic Regenerative Refrigeration**
Pierre Clot, David Viallet, Afef Kedous-Lebouc, Jean Marc Fournier, Jean Paul Yonnet, Farid Allab, *Laboratoire d'Electrotechnique de Grenoble, Saint Martin D'heres, France*
- GS-08 Electromagnetic Systems Based Upon Ferro-Refraction Concept**
Mirko Hrovat¹, Yuly Pulyer², ¹*Mirtech, Inc., Brockton, MA*, ²*Brighton and Women's Hospital, Boston, MA*
- GS-09 Effectiveness of Anisotropic Iron-Core Material on Switched Reluctance Motor**
Youn-Hyun Kim, Ju Lee, *Energy Conversion Lab., Hanyang University, Seoul, Republic of Korea*
- GS-10 Fast Impedance Formulation and Numerical Computation Associated with Ratios of Confluent Hypergeometric Functions**
Fethi Bellamine¹, Robert Kotiuga², ¹*INSAT, Ez-Zouhour, Tunisia*, ²*Boston University, Boston, MA*

- GS-11** **Magnetic Entropy Change in the Ge-Rich Alloys $Gd_5(Si_xGe_{1-x})_4$**
Yi Zhuo, Richard Chahine, Bose Tapan K., *Institut de recherche sur l'hydrogène, Université du Québec à Trois-Rivières, Trois-Rivieres, Canada*
- GS-12** **Applicability of the Ferromagnetic Resonance for the Neutron Irradiated Degradation in the Reactor Pressure Vessel**
Seung Sik Park, *Korea Atomic Energy Research Institute, Daejeon, Republic of Korea*
- GS-13** **An Analytical Method to Predict the Static Performance of A Planar Actuator**
Aly Ferreira Flores Filho, Altamiro Amadeu Suzim, Marilia Amaral Da Silveira, *Federal University of Rio Grande do Sul, Porto Alegre, Brazil*

THURSDAY 8:00 AM - 12 NOON

EXHIBIT HALL

Session GT
MAGNETO-OPTIC MATERIALS AND DEVICES

Mitsuteru Inoue

Toyohashi University Tech, Toyohashi, Japan

- GT-01** **Magnetorefractive Effect in Nanogranular Films (CoFe)-(Mg-F)**
Alexander Granovsky¹, Elena Ganshina¹, Vladimir Guschin¹, Igor Bykov¹, Andrey Kozlov¹, Mitsuteru Inoue², Nobukiyo Kobayashi³, Shigehiro Ohnuma³, Tsuyoshi Masumoto³, ¹*Faculty of Physics, Lomonosov Moscow State University, Moscow, Russian Federation*, ²*Toyohashi University of Technology, Toyohashi, Japan*, ³*The Research Institute for Electric and Magnetic Materials, Sendai, Japan*
- GT-02** **Flat-Surface Magneto-Optic Spatial Light Modulators**
Jae-Hyuk Park¹, Hiroyuki Takagi¹, Jae-Kyeong Cho², Kazuhiro Nishimura¹, Hironaga Uchida¹, Mitsuteru Inoue¹, ¹*Dept. of Electrical & Electronic Eng., Toyohashi University of Technology, Toyohashi, Japan*, ²*Dept. of Electronic Materials Eng., Gyeongsang National University, Gyeongnam, Republic of Korea*
- GT-03** **The Microstructure and Magneto-Optical Properties of Pulsed Laser Deposited Maghemite Films**
Tamar Tepper, Filip Ilievski, Caroline A. Ross, *Massachusetts Institute of Technology, Cambridge, MA*
- GT-04** **Laser Pumped Readout Technology Applied to the CAD Type MSR Disk**
Yoshihisa Suzuki, Sayoko Tanaka, Hiroshi Watanabe, Shuichi Ichiura, *Sanyo Electric Co., Ltd., Ohmori, Japan*
- GT-05** **Faraday Rotation in Quaternary CdMnCoTe Thick Films Deposited on Transparent Quartz Glass Substrates**
Akira Okada¹, Jin-Yong Ahn², Satoru Inoue¹, Toshinao Yamaguchi², Masaaki Imamura², ¹*Mitsubishi Electric Corp., Amagasaki, Japan*, ²*Fukuoka Inst. of Tech., Fukuoka, Japan*

- GT-06 The Micro-Structure due to RE-TM Underlayer in A TbFeCo Memory Layer for High-Density Magneto-Optical Recording**
Motoyoshi Murakami, Masahiro Birukawa, *Matsushita Electric Industrial Co., Ltd., Osaka, Japan*

THURSDAY 8:00 AM - 12 NOON

EXHIBIT HALL

**Session GU
EXCHANGE BIASING**

Robert L. White
Stanford University, Stanford, CA

- GU-01 Anisotropy Dispersion Effects in CoFe/IrMn and NiFe/IrMn Bilayer Systems**
Jeffrey McCord¹, Roland Mattheis², Kai-Uwe Barholz², ¹*Leibniz Institute for Solid State and Materials Research, Dresden, Germany*, ²*IPHT Jena, Jena, Germany*
- GU-02 Effect of Deposition Parameters on Exchange Bias Studied Using Lorentz and High Resolution Electron Microscopy**
Balachandar Ramadurai, David J Smith, *Arizona State University, Tempe, AZ*
- GU-03 Micromagnetic Calculation of Bias Field and Coercivity of Exchange Biased IrMn/NiFe Bilayers**
Markus Kirschner¹, Dieter Suess¹, Thomas Schrefl¹, Josef Fidler¹, John N Chapman², ¹*Vienna University of Technology, Vienna, Austria*, ²*University of Glasgow, Glasgow G12 8qq, United Kingdom*
- GU-04 Study of Exchange Bias Field Variation in Ferrimagnetic/Ferrimagnetic Bilayer System**
Stephane Mangin, Francois Montaigne, *Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*
- GU-05 Temperature Dependence of Effective Exchange Coupling in NiCu/IrMn Bilayer**
Bin Xu, Ofelia Traistaru, Hideo Fujiwara, *The University of Alabama, Tuscaloosa, AL*
- GU-06 Top Exchange Biasing Enhancement in X/IrMn/Py and X/IrMn/Co Multilayers**
Malinowski Grégory¹, Hehn Michel¹, Meny Christian², Lenoble Olivier¹, Robert Sylvie¹, Panissod Pierre², Schuhl Alain¹, ¹*Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*, ²*IPCMS, Strasbourg, France*
- GU-07 Influence of the Spin Structure for the Exchange Bias of Antiferromagnetic and Ferromagnetic Bilayer**
Chiharu Mitsumata, *Hitachi Metals, Ltd., Kumagaya, Japan*
- GU-08 Determination of Uncompensated Magnetic Moment in Antiferromagnetic Layer in Spin Valve System**
Yuan-Jen Lee, Ching-Ray Chang, *Department of Physics, National Taiwan University, Taipei, Taiwan*

- GU-09 Thickness Dependence of Rotatable Anisotropy in Exchange-Biased NiFe/FeMn Bilayers**
 Jong Kee Kim¹, Sun Wook Kim¹, Bo Kyoung Kim², Sang Suk Lee²,
 Do Guwn Hwang², ¹*Dankook University, Choeran, Republic of Korea*, ²*Sangji University, Wonju, Republic of Korea*
- GU-10 Exchange Anisotropy in the PtMn/NiFe (110) Quad-Crystal Films**
 Chin-Chung Yu¹, J. C. A. Huang², Y. D. Yao¹, ¹*Institute of Physics, Academia Sinica, Taipei, Taiwan*, ²*Department of Physics, National Cheng-Kung University, Tainan, Taiwan*
- GU-11 Magnetic Properties of NiFe/(IrMn/CoFe)₃/IrMn Multilayer Thin Films-A Novel Type of Exchange-Spring System**
 Kebin Li¹, Jinjun Qiu¹, Yihong Wu², ¹*Data Storage Institute, Singapore, Singapore*, ²*Department of Electrical and Computer Engineering, National University of Singapore, Singapore, Singapore*
- GU-12 Exchange Bias in MnPd/Fe Bilayers**
 Peter Blomqvist, Kannan M. Krishnan, *MSE, University of Washington, Seattle, WA*
- GU-13 Dependence of Exchange Bias on Various Annealing Conditions in Mn-Ir-Pt Based Spin Valves**
 Dong-Min Jeon, Jung-Pyo Lee, Seong-Yong Yoon, Du-Hyun Lee, Sue-Jeong Suh, *Sungkyunkwan university, Suwon, Republic of Korea*

THURSDAY PM

SALON B/C/D

Session HA

MAGNETIC MULTILAYERS AND THIN FILMS II

Aubrey Hanbicki

Naval Research Laboratory, Washington, DC

- HA-01 Dependence of Co/Pd Superlattice Properties on Pd Thickness**
2:00 Hiroaki Nemoto, Hiroyuki Nakagawa, Yuzuru Hosoe, *Hitachi, Ltd., Tokyo, Japan*
- HA-02 Evaluation of Magnetic Interaction in [Co/Pd]_n Multilayered Thin Film for Perpendicular Magnetic Recording Media Under the Tilted Magnetic Field**
2:15 Sarbanoo Das, Hironori Yoshikawa, Shigeki Nakagawa, *Tokyo Institute of Technology, Tokyo, Japan*
- HA-03 Three Dimensional Atom Probe and Field Ion Microscopy Analysis of Co/Pd Multilayers for Perpendicular Media Applications**
2:30 Yong Qing Ma¹, Amanda K Petford-Long¹, Alfred Cerezo¹, David J Larson², Tom P Nolan³, ¹*University of Oxford, Oxford, United Kingdom*, ²*RHO Seagate Technology, Bloomington, MN*, ³*Seagate Technology RMO, Fremont, CA*

- HA-04** **Crystallographic Orientation Control in L10 FEPT Films on CRRU Underlayer**
2:45 Jingsheng Chen, Boon Chow Lim, Jianping Wang, *Data Storage Institute, Singapore, Singapore*
- HA-05** **Influence of Oxygen Content on the Reduction of the Ordering Temperature of L10 FePtCu Alloy**
3:00 Akira Kikitsu¹, Tomoyuki Maeda¹, Tadashi Kai¹, Toshihiko Nagase¹, Jun-Ichi Akiyama¹, Naomi Fujioka², Takashi Ishigami², ¹*Corporate R&D Center, Toshiba Corp., Kawasaki, Japan*, ²*DDC Company, Toshiba Corp., Yokohama, Japan*
- HA-06** **Magnetic Anisotropy of HCP (FeCoNi)₃Pt Ordered Alloy Thin Films**
3:15 Takao Suzuki, M. A. I. Nahid, *Toyota Technological Institute, Nagoya, Japan*
- HA-07** **Intrinsic Properties and Coercivity Mechanism of Epitaxial Nd₂Fe₁₄B Films**
3:30 Ullrich Hannemann, Volker Neu, Sebastian Fähler, Bernhard Holzapfel, Ludwig Schultz, *IFW Dresden, Dresden, Germany*
- HA-08** **Two Curie Temperatures in A Single Iron Thin Film**
3:45 Stéphane Andrieu, Stephane Mangin, Christophe Chatelain, Mohamed Lemine, Bertrand Berche, Philippe Bauer, *Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*
- HA-09** **Antiferromagnetic Exchange Coupling in Epitaxial Fe/Si/Ge/Si/Fe Structures**
4:00 Rashid R. Gareev, Daniel E. Bürgler, Heiko Braak, Matthias Buchmeier, Peter A. Grünberg, *Institut für Festkörperforschung, Jülich, Germany*
- HA-10** **Induced Ge Spin Polarization at the Fe/Ge Interface**
4:15 John W Freeland¹, David J Keavney¹, Robert Winarski¹, Phil Ryan¹, Richard Kodama², Mahesh Vedpathak², ¹*Argonne National Laboratory, Argonne, IL*, ²*University of Illinois at Chicago, Chicago, IL*
- HA-11** **Helical Magnetic Structures in Epitaxial (110) Eu Films**
4:30 Soriano Stéphane¹, Dumesnil Karine¹, Gourieux Thierry¹, Dufour Catherine¹, Stunault Anne², ¹*Laboratoire de Physique des Matériaux, Vandoeuvre Les Nancy, France*, ²*Institut Laue Langevin, Grenoble, France*

THURSDAY PM

SALON H/I/J

Session HB

POWER AND MAGNETIC DEVICE CONTROL II

David Howe

University of Sheffield, Sheffield, United Kingdom

- HB-01** **Back Iron Design for High Speed PM Axial Flux Generators**
2:00 Patrick Chi-Kwong Luk, *Cranfield University, Shrivenham, United Kingdom*

**Session HC
FERRITES II**

Richard J. Gambino

SUNY at Stony Brook, Stony Brook, NY

- *HC-01** **Domain Wall Resonance Effects on High-Frequency Permeability of Ferrites**
2:00
 Gerald F. Dionne, *Lincoln Laboratory, Massachusetts Institute of Technology, Lexington, MA*
- HC-02** **Inducing in-Plane Magnetic Anisotropy in Spin-Sprayed Ni-Zn-Co Ferrite Films Exhibiting Strong Magnetic Loss at GHz Range**
2:30
 Nobuhiro Matsushita, Tatsuro Nakamura, Masanori Abe, *Dept. of Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*
- HC-03** **Cole-Cole Impedance Analysis on Spin Sprayed Ni-Zn-Co Ferrite Films Exhibiting Strong Magnetic Loss in GHz Range**
2:45
 Koichi Kondo¹, Shinsuke Ando¹, Tatsuya Chiba¹, Shigeyoshi Yoshida¹, Yutaka Shimada², Tatsuro Nakamura³, Nobuhiro Matsushita³, Masanori Abe³, ¹*NEC Tokin Corporation, Sendai, Japan*, ²*IMRAM, Tohoku University, Sendai, Japan*, ³*Dept. of Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*
- HC-04** **Modeling of Exchange Constants and Electronic Structure of Manganese Ferrite (MnFe₂O₄)**
3:00
 Xu Zuo, Carmine Vittoria, *Northeastern University, Boston, MA*
- HC-05** **RF Noise Suppression on Thin-Film Coplanar Transmission Line by Electroplated Ferrite Magnetic Films**
3:15
 Ki Hyeon Kim¹, Masahiro Yamaguchi¹, Nobuhiro Matsushita², Masanori Abe², Ken-Ichi Arai¹, ¹*Research Institute of Electrical Communication, Tohoku Univ., Sendai, Japan*, ²*Department of Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*
- HC-06** **The electric and dielectric properties of the ZnNi-ferrite plated NiFe microspheres synthesized from aqueous solution**
3:30
 C. M. Fu¹, C. Y. Hsu¹, U. C. Chao¹, D. S. Kim², Nobuhiro Matsushita², Masanori Abe², ¹*Physics department, National Kaoshiung Normal University, Kaoshiung, Taiwan*, ²*Department of Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*
- HC-07** **Microstructure and Magnetic Property of Nanostructured NiZnCu Ferrites Powder Synthesized by Sol-Gel Process**
3:45
 Joong-Hee Nam, Byoung Ki Min, Hyo-Tae Kim, Min Sang Kim, Sang Jin Jung, *Korea Institute of Ceramic Engineering and Technology, Seoul, Republic of Korea*
- HC-08** **High Performance Ni-Substituted Mn-Zn Ferrites Processed by Soft Chemical Technique**
4:00
 Amarendra K. Singh¹, O. P. Thakur², C. Prakash², T.C. Goel¹, R. G. Mendiratta³, ¹*Indian Institute of Technology, New Delhi, India*, ²*Solid State Physics Laboratory, Delhi, India*, ³*Netaji Subhas Institute of Technology, New Delhi, India*

HC-09 **Ferromagnetic Resonance Study on Magnetic Homogeneity in Spin-Sprayed NiZn Ferrite Films Highly Permeable at GHz Frequencies**
4:15

Masanori Abe¹, Alexander I. Shames², Nobuhiro Matsushita¹, Yutaka Shimada³, ¹*Dept. of Physical Electronics, Tokyo Institute of Technology, Tokyo, Japan*, ²*Dept. of Physics, Ben Gurion University of the Negev, Be'er-Sheva, Israel*, ³*Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan*

HC-10 **Consolidation and Magnetic Properties of Nanostructured Ni₇₅Fe₂₅**
4:30

Yide Zhang, Mingzhong Wu, Shihui Ge, Rob Hui, Xinqing Ma, *Inframat Corporation, Willington, CT*

THURSDAY PM

SALON F

Session HD

MICROWAVE AND MAGNETOCALORIC MATERIALS

Ekkes Bruck

University of Amsterdam; Van der Waals-Zeeman Institute,
Amsterdam, The Netherlands

HD-01 **Effect of Ge Substitution on the Magnetic Properties of MnFe(P,As)**
2:00

Xin-Wen Li, O. Tegus, Lian Zhang, W. Dagula, Ekkes Bruck, K. H. Juergen Buschow, Frank Roelof De Boer, *Universiteit van Amsterdam, Amsterdam, The Netherlands*

HD-02 **Unique Angular Dependence of the Unusual First Order Transition Temperature in Gd₅(Si_{0.5}Ge_{0.5})₄**
2:15

M. Han¹, David C. Jiles², S. J. Lee², John E. Snyder², T. A. Lograsso², D. L. Schlagel², ¹*Department of Materials Science and Engineering, Iowa State University, Ames, IA*, ²*Metals & Ceramic Science Division, Ames Laboratory, Ames, IA*

HD-03 **Statistical Distribution of the Internal Field in Planar Ferrites**
2:30

Martha Pardavi-Horvath, Jijin Yan, *The George Washington University, Washington, DC*

HD-04 **Generation of Bright and Dark Envelope Solitons From Magnetostatic Spin Waves with Attractive Nonlinearity**
2:45

Mark M Scott¹, Mikhail P Kostylev², Boris A. Kalinikos², Carl E. Patton¹, ¹*Colorado State University, Fort Collins, CO*, ²*St. Petersburg Electrotechnical University, St. Petersburg, Russian Federation*

HD-05 **Some Quirks in Precession Dynamics - the Anti-Larmor Response**
3:00

Carl E. Patton, *Colorado State University, Fort Collins, CO*

HD-06 Numerical Analysis of Nonlinear Magnetostatic Wave Propagation by Finite Element Method
3:15

Tetsuya Ueda¹, Yoshiko Ueda¹, Hitoshi Shimasaki¹, Makoto Tsutsumi², ¹*Dept. of Electronics and Information Science, Kyoto Institute of Technology, Kyoto, Japan,* ²*Dept. of Space Communication Engineering, Fukui University of Technology, Fukui, Japan*

HD-07 Self-Biased Circulator/Isolator at Millimeter Wavelength Using Magnetically Oriented Polycrystalline Strontium M-Type Hexaferrite (SrFe₁₂O₁₉)
3:30

Xu Zuo¹, Hoton How², Sivasubramanian Somu¹, Carmine Vittoria¹, ¹*Northeastern University, Boston, MA,* ²*Electromagnetic Application Inc., Boston, MA*

HD-08 Preparation of High Quality Hexaferrite Thick Films by An Improved LPE Deposition Technique
3:45

Soack-Dae Yoon, Carmine Vittoria, *Northeastern University, Boston, MA*

HD-09 High Frequency Magnetic Properties of FeCoBSi/SiO₂ and (FeCo/CoB)/SiO₂ Multilayer Thin Films
4:00

Michael Frommberger, Alfred Ludwig, Christel Zanke, Angelika Sehrbrock, Eckhard Quandt, *Research Center Caesar, Bonn, Germany*

HD-10 Power-Selective Suppression of Microwave Pulses in Nonlinear Spin Wave Interferometer
4:15

Alexei Borisovich Ustinov, *St.Petersburg Electrotechnical University, Saint Petersburg, Russian Federation*

THURSDAY PM

SALON G

Session HE
RECORDING SYSTEMS

Roger Wood
IBM, San Jose, CA

HE-01 Preliminary Investigation for Cylindrical Magnetic Storage System
2:00

Hiroshi Yamada, Takehito Shimatsu, Isao Watanabe, Hiroaki Muraoka, Yoshihisa Nakamura, *RIEC, Tohoku Univ., Sendai, Japan*

HE-02 Experimental Study of Asymmetry Effects in Perpendicular Recording
2:15

Peng Luo¹, Kroum Stoev¹, Francis Liu¹, Marcos Lederman¹, Mark Re¹, Michael Mallary², George Bellesis², Steven Marshall², ¹*Read-Rite Co., Fremont, CA,* ²*Maxtor Co., Shrewsbury, MA*

HE-03 Synchronization Free DIBIT Response Extraction From PRBS Waveforms
2:30

Inci Ozgunes, Walter R Eppler, *Seagate Technology LLC, Pittsburgh, PA*

- HE-04** **Optimizing the Bit Aspect Ratio of A Recording System Using An Information-Theoretic Criterion**
2:45
 Shaohua Yang¹, Aleksandar Kavcic¹, William E. Ryan², ¹*Harvard University, Cambridge, MA*, ²*University of Arizona, Tucson, AZ*
- HE-05** **Magnetic Lithography Using Flexible Magnetic Masks: Applications to Servowriting**
3:00
 Zvonimir Z Bandic, Hong Xu, Thomas R Albrecht, *IBM Almaden Research Center, San Jose, CA*
- HE-06** **Magnetic Printing Technique for Perpendicular Thin Film Media with High Coercivity of Up to 10000 Oersted**
3:15
 Akira Saito, Takuya Ono, Shunji Takenoiri, *Fuji Electric Corporate Research and Development, Ltd., Matsumoto, Japan*
- HE-07** **Utilization of Continuous PES Signal for H/M Component Characterizations**
3:30
 Xiaodong Che¹, David Terrill¹, J. D. Buttar¹, Kenneth Davis¹, Tahir Ali¹, Robert Chu¹, Trung Vinh¹, Mike Wang¹, Herman Ferrier², Sanjoy Ghose¹, ¹*Read-Rite Corporation, Fremont, CA*, ²*Scotts Valley, CA*
- HE-08** **Reduction of Flow Induced Suspension Vibrations in A Hard Disk Drive by Dual-Stage Suspension Control**
3:45
 Arjan Teerhuis¹, Sandra Cools¹, Raymond De Callafon², ¹*Eindhoven University of Technology, Eindhoven, The Netherlands*, ²*University of California, San Diego, La Jolla, CA*
- HE-09** **A Silicon Microactuator Using Integrated Microfabrication Technology**
4:00
 Yi Lu, Jiaping Yang, Jian Chen, Shixin Chen, *Data Storage Institute, Singapore, Singapore*
- HE-10** **Thermal Displacement Characteristics of A Chip on Suspension**
4:15
 Ryoichi Ichikawa¹, Mikio Tokuyama², Hiromitsu Masuda³, Shigeo Nakamura³, Shozo Saegusa³, ¹*Formerly of Mechanical Engineering Research Laboratory, Hitachi, Ltd., Tsuchiura, Japan*, ²*Mechanical Engineering Research Laboratory, Hitachi, Ltd., Tsuchiura, Japan*, ³*Data Storage Systems Division, Hitachi, Ltd., Odawara, Japan*
- HE-11** **A High Performance, Compact Shaker/Sensor for HGA Dynamics Testing**
4:30
 Sivadasan K Kulangara, Aman Khan, *Magnecomp Corporation, Temecula, CA*
- HE-12** **A Study of Electrostatic Discharge on MR Heads Using Metal Powder Tapes**
4:45
 Chiaki Ikeyama¹, Shinya Makita¹, Horoshi Iino¹, Jun Sawai¹, Masaki Hara¹, Yutaka Soda², ¹*Sony Corporation, Atsugi-Shi, Japan*, ²*Sony Corporation, Yokohamashi, Japan*

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 Bain, J. DS-04
 Bain, J. ET-07
 Bain, J. FT-09
 Baker, B. FA-07
 Baltazar, R. FQ-05
 Bandic, Z. HE-05
 Bao, S. GA-06
 Bao, Y. FD-07
 Barata, N. FQ-05
 *Barbee, K. EC-06
 Barbosa, J. ET-14
 Barholz, K-U. GU-01
 Barmak, K. GD-01

Bärner, K.	ES-10	Brown, H.	FT-01
Barry, J.	DT-06	Bruck, E.	HD-01
Barth, G.	GE-01	Brueckl, H.	GD-11
Basso, V.	EP-05	Buchmeier, M.	HA-09
Batra, S.	GR-05	*Buhrman, R.	CC-04
Bauer, P.	HA-08	Bürgler, D.	HA-09
Bayer, C.	GC-07	Buschow, K.	HD-01
Beach, G.	AA-10	Buske, N.	EQ-02
Beal, M.	DS-09	Buske, N.	EQ-03
Beatrice, C.	EP-05	Buske, N.	GA-03
Beck, M.	AB-06	Buttar, J.	HE-07
Beerman, M.	FD-07	Bykov, I.	GT-01
Bellamine, F.	GS-10	Byun, T.	FQ-01
Bellesis, G.	HE-02		
Bennett, L.	DP-14	C	
Berche, B.	HA-08	*Cabral, J.	EC-04
Berger, A.	EE-07	Cai, C.	GB-11
Berger, A.	EE-09	Caltun, O.	EU-07
Berkowitz, A.	AA-10	Camley, R.	FQ-14
Berkowitz, A.	DA-05	Campello, J.	DT-19
Bernas, H.	DE-08	Cardelli, E.	AD-07
Bernstein, J.	CQ-01	Carley, R.	FT-09
Bertin, F.	FS-10	Carlotti, G.	FQ-12
Bertin, F.	FS-11	Carlotti, G.	GC-08
Bertotti, G.	CA-02	Carpentieri, M.	AD-06
Bertotti, G.	CA-03	Cariço, A.	ET-14
Bertotti, G.	DA-03	*Castano, F.	DC-03
Bertram, H.	FE-02	Castaño, F.	FA-01
Besserguenev, V.	FQ-05	Castaño, F.	GC-06
Best, M.	DE-09	Catherine, D.	AA-03
Betancourt, I.	CB-07	Catherine, D.	HA-11
Betancourt, I.	CB-11	*Cefalas, A.	EC-03
Betram, H.	FE-05	Cefalas, A.	EP-02
Bhagavatula, V.	DT-02	Celinski, Z.	FQ-14
Bhagavatula, V.	DT-04	Cerchez, M.	DP-08
Bhagavatula, V.	DT-10	Cerchez, M.	DP-09
Bhagavatula, V.	DT-12	*Cerezo, A.	DC-05
Bhattacharyya, M.	ED-03	Cerezo, A.	FT-01
*Bian, X.	EE-01	Cerezo, A.	HA-03
Birukawa, M.	GT-06	Chahine, R.	GS-11
Bissell, P.	DP-09	Chai, K.	CP-05
Bitar, S.	CQ-05	*Chainer, T.	FA-10
Black, C.	DD-07	Champion, E.	GR-03
Blanco, J.	FS-12	Chang, C.	CS-06
Blomqvist, P.	GU-12	Chang, C.	DQ-05
Boeve, H.	GD-05	Chang, C-R.	AA-07
Bogy, D.	AB-04	Chang, C-R.	ET-09
Bogy, D.	GP-05	Chang, C-R.	GU-08
Bois, D.	FS-10	Chang, D.	HB-04
Bollero, A.	EB-06	Chang, H.	CS-02
Bonder, M.	FB-08	Chang, I.	AA-07
*Bono, D.	DA-01	Chang, J.	CD-09
Boots, M.	DQ-01	Chang, J.	CT-06
*Borghs, G.	AC-04	Chang, J.	DS-08
Borghs, G.	CD-07	Chang, J.	DS-10
Borghs, G.	GB-05	Chang, J.	ES-06
Borghs, G.	GD-05	Chang, K-O.	CP-11
Bottauscio, O.	CP-09	Chang, W.	CS-02
Boys, J.	ER-19	Chang, W.	CS-06
Braak, H.	HA-09	Chantrell, R.	CA-04
Brandl, A.	FD-10	*Chantrell, R.	CC-03
Brazzle, J.	CQ-01	*Chantrell, R.	FE-01
Brookes, N.	GD-12	Chantrell, R.	FT-09

Chao, U.	HC-06	Choi, J.	GE-04
Chapman, J.	ET-01	Choi, J.	GP-09
Chapman, J.	GU-03	Choi, J.	GP-12
Chappert, C.	DE-08	Choi, J-H.	DP-12
Chari, M.	AD-10	Choi, J-H.	ER-05
Chari, M.	FP-03	Choi, K.	ES-09
Chatelain, C.	HA-08	Choi, M.	GC-10
Chau, K.	GQ-06	Choi, S.	HB-04
Chaves, S.	EQ-03	Choi, Y.	CP-05
Che, X.	HE-07	Chong, T.	ET-08
Chen, C.	DB-02	Chong, T.	FA-06
Chen, C.	EB-07	Chong, T.	FE-09
Chen, C-Y.	GE-10	Chong, T.	FQ-10
Chen, D.	FP-01	Choo, W.	CT-03
Chen, F.	AD-01	Chou, C.	ES-07
Chen, F.	ET-07	Chour, K-W.	GE-01
Chen, J.	CE-07	Christian, M.	GU-06
Chen, J.	ES-07	Chu, R.	HE-07
Chen, J.	FE-08	Chu, S.	DB-01
Chen, J.	HA-04	Chubykalo, O.	CA-04
Chen, J.	HE-09	Chue, J.	DT-23
Chen, K.	GQ-13	*Chumakov, D.	DC-06
Chen, P.	CS-06	Chung, S.	HB-04
Chen, S.	DS-06	Cimpoesu, D.	CA-10
Chen, S.	HE-09	Ciureanu, P.	CB-06
Chen, S-A.	DS-08	Clark, A.	DA-07
Chen, S-A.	DS-10	Clinton, T.	CE-10
Chen, W.	CP-02	Clinton, T.	DQ-11
Chen, W-C.	EE-05	Clot, P.	GS-07
Chen, X.	GQ-03	Coey, J.	FQ-06
Chen, Y.	CE-07	Coffey, K.	DE-04
Chen, Z.	DB-01	Colaiori, F.	AA-08
Chen, Z.	EB-03	Collocott, S.	GS-01
Chen, Z.	EB-04	Cooke, M.	AA-05
Cheng, S.	FP-04	Cooke, M.	ED-11
Chern, G.	EP-13	Cools, S.	HE-08
Chernenko, V.	DA-03	Coppola, G.	GA-05
Chiang, C.	DS-06	Corcoran, C.	CQ-01
Chiang, T-H.	HB-05	Corcoran, H.	FQ-08
Chiba, S.	CP-10	Corte-Real, M.	CB-03
Chiba, T.	HC-03	Coughlin, T.	DR-05
*Childress, J.	CC-02	Covic, G.	ER-19
Childress, J.	GD-09	Covington, M.	FA-04
Chin, T.	AD-01	Cowburn, R.	AA-05
Chin, T.	FQ-02	*Cowburn, R.	CC-05
Chiriac, H.	CS-07	Cowburn, R.	ED-11
Chiriac, H.	FS-06	Crawford, A.	EA-01
Chiriac, H.	FS-08	Crawford, T.	FA-04
Chiriac, H.	FS-09	Cross, B.	DD-03
Chiu, H.	CS-06	Cross, B.	FE-11
Cho, H.	DQ-05	Cruz, J.	DT-15
Cho, H.	DT-05	Cruz, J.	DT-17
Cho, H.	ER-13	*Cugat, O.	GB-04
Cho, H-U.	ER-06	Cui, B.	CS-03
Cho, J-K.	GT-02	*Cyrille, M-C.	CC-01
Cho, S.	CD-09		
Cho, S.	CP-05		
Cho, S-K.	ER-06		
Choe, G.	EE-03	D	
Choe, G.	EE-04	Da Silva, M.	EQ-05
Choi, D.	CS-12	Da Silva, S.	EQ-05
Choi, D-H.	GP-02	Da Silveira, M.	GS-13
Choi, J.	GC-11	Dagula, W.	HD-01
		Dai, Q.	GE-05
		Dai, Q.	GE-06

Dai, Q.	GE-09	Domanowski, A.	ED-08
Dang, X.	CE-07	Donaldson, J.	CR-04
Dantas, A.	ET-14	Dong, J.	FP-08
Dao, N.	DP-03	Dong, Z.	GQ-13
d'Aquino, M.	CA-02	Doyle, W.	AE-08
d'Aquino, M.	DP-10	*Drazic, G.	EB-01
d'Aquino, M.	GA-05	*Drazic, G.	EC-03
Das, J.	GB-05	Dreyer, M.	ET-04
Das, J.	GD-05	Dreyer, M.	FA-08
Das, S.	HA-02	Du, J.	CB-03
Daughton, J.	GB-07	Duffy, M.	EA-07
Daughton, J.	GD-03	Dunlop, J.	GS-01
Dave, R.	CD-02	Dupre, L.	EP-06
Davis, K.	HE-07	Dupre, L.	EP-08
*Davis, R.	EC-01	Dupré, L.	EP-04
De Araújo, A.	CB-06	Duque, J.	CB-06
*De Boeck, J.	AA-01	Durin, G.	AA-08
*De Boeck, J.	AC-04	Dutson, J.	DR-12
De Boeck, J.	CD-07		
*De Boeck, J.	EC-05	E	
De Boeck, J.	GB-05	Eckert, A.	FA-04
De Boeck, J.	GD-05	Eckert, J.	CB-08
De Boer, F.	HD-01	*Edo, M.	FC-04
De Callafon, R.	DT-27	Efthimiadis, K.	CS-04
De Callafon, R.	HE-08	Efthimiadis, K.	CS-05
De Castro, F.	ER-02	El-Hasan, T.	GS-03
De Francisco, C.	EU-05	El-Hasan, T.	HB-03
De Nadai, C.	GD-12	Elliott, R.	CD-03
De Wulf, M.	EP-04	Elzain, M.	EU-08
De Wulf, M.	EP-06	Endo, H.	DP-13
Deak, J.	CA-06	Endo, H.	FP-09
Decuyper, M.	EQ-07	Engel, B.	CD-02
Degraeve, R.	GD-05	Engel, B.	ED-04
Del Val, J.	FS-05	Ennen, I.	FT-04
*Delamare, J.	GB-04	Enomoto, K.	AE-03
Della Torre, E.	DP-14	Enomoto, K.	AE-07
Delong, L.	FQ-04	Enomoto, K.	EP-16
Delooze, P.	CQ-10	Ensell, G.	CD-08
Demokritov, S.	GC-07	Eppler, W.	HE-03
Dempsey, N.	DB-06	Epshtein, E.	CD-03
Denardin, J.	FD-10	Erden, M.	CE-10
Denbeaux, G.	FA-02	Erden, M.	DT-06
*Dennig, P.	EE-01	*Erwin, S.	AC-02
Dennis, C.	CD-08	Erwin, S.	CT-07
Deoras, S.	GP-03	Eschrich, T.	CD-02
Deprot, S.	FS-10	*Etzold, K.	FA-10
Deprot, S.	FS-11	Eyckmans, W.	GB-05
Devasahayam, A.	DD-08		
Devasahayam, A.	FQ-13	F	
Dewhurst, C.	FD-04	Fabrice, W.	AA-03
Diaz Zamora, J.	HB-05	Fagot-Révurat, Y.	GD-12
Ding, I.	EE-05	Fähler, S.	EB-08
*Dionne, G.	HC-01	Fähler, S.	ET-06
Dittrich, R.	AE-10	Fähler, S.	HA-07
Dittrich, R.	CA-05	Fallah, E.	DP-07
Dittrich, R.	ED-01	Fallon, J.	CB-04
Djayaprawira, D.	EE-02	Fang, J.	CT-05
Djayaprawira, D.	EE-06	Faruque, S.	AE-05
Djukic, S.	CB-08	Faulkner, C.	AA-05
Do, H.	AE-05	Faulkner, C.	ED-11
Do, H.	DR-10	Feder, M.	EU-07
Do, H.	EE-09	Feng, Y.	DQ-11
*Doerner, M.	EE-01	Fernandez-De-Castro, J.	DQ-08

Fernandez-De-Castro, J.	DR-04	Fullerton, E.	EE-09
*Ferreira, H.	EC-04	Funabashi, N.	EP-16
Ferreira, J.	ER-02	Funabasi, N.	GR-02
Ferrier, H.	HE-07	Funamizu, H.	FR-08
*Feuchtwanger, J.	DA-01	Funano, S.	DT-18
Fidler, J.	AE-10	Fuyama, M.	CE-09
Fidler, J.	CA-05		
Fidler, J.	CA-07	G	
Fidler, J.	DB-09	Gambino, R.	EU-02
Fidler, J.	ED-01	Gamble, J.	FE-10
Fidler, J.	GU-03	Ganesan, S.	DE-09
Figueiredo, L.	EQ-01	Gansau, C.	EQ-02
Fingers, R.	DB-01	Gansau, C.	EQ-03
Fingers, R.	FS-07	Gansau, C.	GA-03
Finocchio, G.	AD-06	Ganshina, E.	GT-01
Finocchio, G.	AD-07	Gao, K-Z.	FE-02
Fischer, P.	FA-02	Gao, X.	FP-05
Fischer, S.	GC-11	Gao, Y.	GQ-04
*Flatté, M.	AC-03	García, D.	CB-05
Flores Filho, A.	CQ-09	*Garcia, N.	CD-01
Flores Filho, A.	GS-13	Garcia, V.	EQ-07
Flores, A.	CB-05	Garcia-Flores, A.	ES-08
Florez, S.	DA-08	Gareev, R.	HA-09
*Fontana Jr., R.	CC-01	Garshelis, I.	CQ-05
*Fontana, R.	CC-02	Gatzen, H.	AB-06
Fontana, R.	GD-09	Ge, S.	HC-10
*Forbes, Z.	EC-06	Geerapuram, D.	ED-08
Forster, H.	AE-10	Ghose, S.	HE-07
Forster, H.	CA-05	Gibbs, M.	FA-03
Forster, H.	CA-07	Gibson, U.	AD-05
Forster, H.	ED-01	Gil, D.	GC-06
Fournier, J.	GS-07	Giovannini, L.	GC-09
Frandsen, C.	GC-06	*Girt, E.	DE-01
Franke, K.	GB-06	Gismelseed, A.	EU-08
Freeland, J.	HA-10	Giusti, J.	DQ-08
*Freitas, P.	EC-04	Giusti, J.	ET-15
Freitas, P.	FT-10	Givord, D.	DB-06
Friedman, G.	DP-15	Givord, D.	DB-11
*Friedman, G.	EC-06	Goel, T.	HC-08
*Frommberger, M.	FC-03	Goesele, U.	GC-11
Frommberger, M.	HD-09	Goll, D.	DB-02
Fu, C.	FE-06	Golub, V.	CT-02
Fu, C.	HC-06	Golub, V.	CT-05
Fujii, S.	FD-06	Gomez, R.	DA-08
Fujii, S.	HB-06	Gomez, R.	ET-04
Fujii, Y.	GE-03	Gomez, R.	FA-08
*Fujimoto, M.	FC-02	*Gomez-Polo, C.	AD-03
Fujioka, N.	HA-05	Gómez-Polo, C.	CB-06
Fujita, E.	DE-03	Gonzalez, E.	FQ-04
Fujita, S.	ES-02	Gonzalez, J.	FS-12
Fujita, Y.	EP-16	González, J.	CA-04
Fujita, Y.	GR-02	González, J.	FS-05
Fujiwara, H.	GU-05	González, J.	FS-05
Fukunaga, H.	CS-01	Gonzalez-Fernandez, M.	DS-09
Fukunaga, H.	CS-18	Goodman, A.	DR-01
Fukunaga, H.	FB-10	Gorièan, V.	GS-04
Fukunaga, H.	FS-04	*Goswami, R.	AC-02
Fukushima, H.	DP-01	Gotze, T.	GA-03
Fukushima, M.	GB-09	Goya, G.	ET-13
Fukuzawa, K.	GE-07	Grabias, A.	EB-11
Fullerton, E.	AE-05	*Graham, D.	EC-04
Fullerton, E.	DE-11	Granovsky, A.	GT-01
Fullerton, E.	EE-07	Granstrom, E.	DQ-05

Gravina, P.....	EQ-01	Han, S.....	CT-06
Greaves, S.....	DR-01	Han, S.....	ES-06
Gregg, J.....	CD-08	Han, X.....	DP-05
Grégory, M.....	GU-06	Han, X.....	ES-03
Greneche, J-M.....	CS-07	*Hanbicki, A.....	AC-02
Grimes, C.....	GB-03	Hanbicki, A.....	CD-05
Grimm, H.....	DD-09	Hanbicki, A.....	CT-07
Groenland, J.....	DS-03	Handstein, A.....	DB-10
Groeseneken, G.....	GD-05	Hanke, A.....	AB-08
Grössinger, R.....	CS-08	Hannay, J.....	GR-05
Grössinger, R.....	DB-05	Hannemann, U.....	EB-08
Grove, R.....	FT-01	Hannemann, U.....	HA-07
Grünberg, P.....	HA-09	Hanson, M.....	GC-03
*Grutter, P.....	DC-03	Hanson, M.....	GC-08
Grutter, P.....	GC-01	*Hao, Y.....	DC-03
Gu, S.....	CE-07	Hao, Y.....	FA-01
Gubbiotti, G.....	FQ-12	Hara, M.....	AE-12
Gubbiotti, G.....	GC-08	Hara, M.....	FE-03
Gui, J.....	GE-01	Hara, M.....	HE-12
Gui, J.....	GE-02	Harada, K.....	ER-16
Gulyaev, Y.....	CD-03	Haraichi, S.....	GD-04
Guo, H.....	GQ-13	Haratani, S.....	DE-10
Guo, H-J.....	ER-07	Harper, H.....	DA-05
Guo, H-J.....	ER-09	*Harrell, J.....	FD-01
Guo, Y.....	EA-11	Harter, A.....	FD-11
Guo, Z.....	ED-10	*Hasegawa, N.....	DD-01
Gurney, B.....	GD-09	Hasegawa, N.....	DD-05
Guschin, V.....	GT-01	Hashimoto, M.....	GR-01
Gutfleisch, O.....	DB-10	Hatatani, M.....	DQ-04
*Gutfleisch, O.....	EB-01	Hauser, H.....	CQ-08
Gutfleisch, O.....	EB-06	Hauser, H.....	CS-13
Gutierrez, P.....	CB-11	Hauser, H.....	HB-08
H			
Ha, J.....	CA-09	Hayakawa, J.....	GD-07
Ha, J.....	ES-06	Hayakawa, Y.....	DD-05
Hadjipanayis, G.....	CS-04	Hayano, S.....	DP-13
Hadjipanayis, G.....	CS-05	Hayano, S.....	FP-09
Hadjipanayis, G.....	DB-02	Hayasaka, A.....	ER-21
Hadjipanayis, G.....	EB-05	Hayashi, M.....	GB-11
Hadjipanayis, G.....	EB-07	Hayashi, N.....	DP-01
Hadjipanayis, G.....	FB-06	Hayashi, Y.....	CS-17
Hadjipanayis, G.....	FB-08	*Hayashi, Z.....	FC-04
Hadjipanayis, G.....	FD-05	He, Q.....	CE-08
Hadjipanayis, G.....	FQ-03	Heczko, O.....	DA-04
*Hagan, J.....	EE-01	Hee, C.....	FE-09
Hai, N.....	DB-06	Heinig, K-H.....	DE-08
Hallamasek, K.....	DQ-01	Heitmann, S.....	FQ-07
Halley, D.....	DE-08	Hempel, T.....	FQ-07
Ham, M.....	CT-06	Hempel, T.....	FT-04
Hamada, N.....	EB-09	*Henry, C.....	DA-01
Hamaya, K.....	CT-01	Henry, Y.....	AA-02
Hamdeh, H.....	CS-02	Heo, N.....	CP-05
Hamler, A.....	GS-04	Hernández-Gómez, P.....	EU-05
Hammond, V.....	FS-07	Hernando, A.....	FS-05
Han, B.....	CS-16	Hertel, R.....	CA-09
Han, B.....	DP-05	Hertel, R.....	GC-11
Han, B.....	ES-03	*Hiebert, W.....	AA-01
Han, C-S.....	FB-04	*Hieda, H.....	CC-06
Han, G.....	GP-10	Hillebrands, B.....	GC-07
Han, H.....	EU-04	Hilton, S.....	EB-07
Han, M.....	HD-02	Hinds, G.....	FQ-06
Han, S.....	CD-09	Hirabayashi, N.....	ES-02
		Hirano, T.....	EQ-04
		Hirayama, Y.....	AE-04

Hirayama, Y.....	DE-02	Hui, R.....	HC-10
Hisatake, K.	EU-05	Humphrey, F.....	ET-15
Hison, C.	FS-09	Hur, J.....	GQ-02
Ho, J.	CS-02	Hütten, A.....	FQ-07
Ho, M.	DD-07	Hütten, A.....	FT-04
Ho, M.	GD-09	Hwang, D.....	GU-09
Hollingworth, M.	FA-03	Hwang, G-Y.....	ER-10
Holzapfel, B.....	EB-08	Hwang, G-Y.....	ER-11
Holzapfel, B.....	HA-07	Hwang, G-Y.....	ER-12
*Honda, K.	DD-01	Hwang, M.	FS-01
Honda, N.....	AE-09	Hwang, S-M.....	ER-10
Honda, N.....	CE-11	Hwang, S-M.....	ER-11
Honda, N.....	FE-04	Hwang, S-M.....	ER-12
Honda, T.	CP-04	Hwang, U.....	CD-09
Hong, D.....	DT-05		
Hong, J-H.....	CP-11	I	
Hong, S.	DS-07	Ichihara, T.....	CE-09
Hong, Y-D.	EQ-04	Ichikawa, R.....	HE-10
Hong, Y-D.	EU-03	Ichimura, M.	GD-07
Honkura, Y.	CS-17	*Ichinohe, Y.....	DD-01
*Honkura, Y.....	EB-01	Ichinohe, Y.	DD-05
Honkura, Y.	EB-09	Ichinokura, O.....	ER-07
Honkura, Y.	GQ-08	Ichinokura, O.....	ER-08
*Hono, K.....	DB-03	Ichinokura, O.....	ER-09
Hono, K.....	EB-03	Ichiura, S.....	GT-04
Hor, Y.	GP-10	Ide, H.	EE-11
Hong, L.....	EP-13	Ide, Y.	DD-05
Horwath, J.....	DB-01	Igarashi, K.	FR-03
Horwath, J.....	FS-07	Igarashi, M.....	AE-12
Hoshino, K.....	DD-10	Igarashi, M.....	FE-03
Hoshino, K.....	DQ-04	Ihm, Y.	CT-03
Hosoe, Y.	AE-04	Iino, H.	HE-12
Hosoe, Y.	DE-02	*Ikeda, K.....	FC-02
Hosoe, Y.	HA-01	*Ikeda, R.....	DD-01
Hosoi, H.....	EP-12	Ikeda, R.....	DD-05
Hou, C.....	DQ-06	Ikeda, S.	AD-08
Hovorka, O.	DP-15	Ikeda, Y.....	DR-10
How, H.....	HD-07	Ikeyama, C.....	HE-12
Howard, J.....	DQ-12	*Ilic, B.....	DC-03
Howard, J.....	ET-07	Ilievski, F.	GT-03
Howard, K.....	FT-09	Im, M-Y.	GC-10
Howe, D.....	ER-04	Imagawa, T.	DD-10
Howe, D.....	GQ-03	Imai, K.	CE-01
Hozoi, A.....	DS-03	Imamura, M.	GT-05
Hrovat, M.....	GS-08	Inaba, Y.....	DR-08
Hsieh, J-H.	AA-06	Iñiguez, J.....	CB-05
Hsu, C.	HC-06	Iñiguez, J.....	ES-08
Hsu, T-C.	GP-08	Inomata, A.	EE-10
Huang, F-Y.....	DT-22	Inomata, K.	ES-05
Huang, G-H.....	AA-06	Inomata, K.	EU-06
*Huang, J.	DA-01	Inomata, K.	FB-12
Huang, J.	GU-10	Inomata, K.	GC-02
Huang, M.	CS-03	Inoue, M.....	GT-01
Huang, M.	DB-01	Inoue, M.....	GT-02
Huang, M.	FS-07	Inoue, S.	GT-05
Huang, S.	FP-04	Ipsale, M.	AD-06
Huang, S-F.....	GB-10	Iramina, K.....	FR-07
Huang, W.....	GP-13	Iramina, K.....	GB-10
Huang, Y.....	EP-17	Iriguchi, N.....	FR-09
Huang, Y.....	EQ-06	Ise, K.	CE-11
Huang, Y.....	FD-05	*Ishibashi, N.	DD-01
Hughes, E.....	FE-10	Ishigami, T.....	HA-05
Hughes, G.	DT-07	Ishiyama, K.....	CQ-02

Ishiyama, K. CR-08
 Ishiyama, K. FR-02
 Ito, A. EP-11
 Ito, T. FR-03
 Itoh, S. GE-07
 Itou, K. GD-07
 Itskos, G. CD-05
 Itskos, G. CT-07
 Iwahara, M. GB-08
 Iwaki, S. FR-04
 Iwasaki, S-I. AE-09
 Izumita, M. DT-08

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Jabbar, M. FP-08
 Jabbar, M. FP-10
 *Jafari, R. FC-06
 Jalil, M. FT-11
 Jalil, M. GD-08
 Jamal, J. CR-13
 Janesky, J. ED-04
 Jang, E. CE-06
 Jang, G. FP-07
 Jang, G. HB-07
 Jang, K-B. ER-14
 Jang, S. ER-13
 Jang, S. GQ-09
 Jang, S. GQ-10
 Jang, S-M. ER-06
 Jayasekara, W. DD-08
 Jayson, E. AB-07
 Jean-Frederic, C. CR-13
 Jeng, T. EP-17
 Jeon, D-M. ES-01
 Jeon, D-M. GU-13
 Jeong, H. ED-06
 Jeong, J-R. FQ-11
 Jeong, J-R. GC-10
 Jesenik, M. GS-04
 Jeun, M. ES-06
 Jeung, S-K. ER-10
 Jeung, S-K. ER-12
 Ji, T. CT-05
 *Jia, Z. FD-01
 Jianfeng, X. AB-10
 Jiang, H. CE-07
 Jiang, J. GQ-06
 Jiang, Y. FT-11
 Jiles, D. AD-11
 Jiles, D. DA-10
 Jiles, D. FA-05
 Jiles, D. FA-07
 Jiles, D. GB-02
 Jiles, D. HD-02
 Jimmy, L. ET-12
 Jin, C-S. ER-14
 Jin, H. DP-05
 Jin, L. CB-09
 Jin, Z. EB-05
 Jin, Z. FE-05
 Johns, E. DQ-12
 Johnson, A. FQ-08
 Johnson, K. EE-04

Johnson, R. DQ-03
 *Jonker, B. AC-02
 Jonker, B. CD-05
 Jonker, B. CT-07
 *Joshi, V. EC-01
 *Ju, G. CC-03
 *Ju, G. FE-01
 Ju, J. EP-17
 Ju, Y. GD-09
 Jung, H. AE-08
 Jung, H-S. AA-09
 Jung, I-S. GQ-02
 Jung, S. HC-07

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Kaakani, H. ED-05
 Kabos, P. DD-03
 Kabos, P. FQ-14
 Kacprzak, D. CR-04
 Kacprzak, D. ER-19
 Kai, T. HA-05
 Kaido, C. CP-04
 Kaiju, H. ES-02
 Kaiser, D. GR-07
 Kakazei, G. FT-08
 Kakubari, Y. FR-05
 Kalinikos, B. HD-04
 *Kamata, Y. CC-06
 Kaminishi, K. EA-03
 Kanai, Y. DQ-10
 Kanbe, T. EE-08
 Kang, B-S. ER-10
 Kang, B-S. ER-11
 Kang, B-S. ER-12
 Kang, G-H. CR-10
 Kang, K. DE-05
 Kang, K. FD-09
 Kang, K. FT-06
 *Kang, S. FD-01
 Kannan, E. FQ-08
 *Kao, C-C. DC-04
 Kao, C-C. FA-01
 Kari, R. CQ-05
 Karine, D. AA-03
 Karine, D. HA-11
 Karis, T. GE-05
 Karns, D. FA-11
 Kashyap, A. DB-04
 Kashyap, A. DB-07
 Katada, H. CE-04
 Katano, T. GP-11
 Kataoka, H. EE-11
 Kataoka, Y. CQ-07
 *Katayama, Y. FC-04
 *Katine, J. CC-01
 Katine, J. DD-07
 Kato, K. GP-06
 Kato, R. CS-01
 Kato, T. GE-04
 Kato, T. GE-08
 Kato, T. GP-09
 Kato, T. GP-12
 Katter, M. EB-02

Katti, R.....	ED-05	Kim, K-Y.....	AE-02
Kavcic, A.....	DT-03	Kim, M.....	GC-10
Kavcic, A.....	HE-04	Kim, M.....	HB-07
Kawaguchi, M.....	GP-09	Kim, M.....	HC-07
Kawaguchi, M.....	GP-12	Kim, N.....	DD-02
Kawaguchi, T.....	FA-07	Kim, S.....	CP-05
Kawakubo, Y.....	GP-07	Kim, S.....	DP-12
Kawamoto, T.....	DT-21	Kim, S.....	ER-05
Kawato, S.....	FR-08	Kim, S.....	ES-09
Kawato, Y.....	CE-09	Kim, S.....	EU-04
Kazakova, O.....	GC-03	Kim, S.....	EU-09
Kazakova, O.....	GC-08	Kim, S.....	FQ-01
Keavney, D.....	HA-10	Kim, S.....	FQ-01
Kedous-Lebouc, A.....	GS-07	Kim, S.....	GQ-07
*Kemp, J.....	EC-01	Kim, S.....	GU-09
Keplinger, F.....	CQ-08	Kim, S-H.....	GP-02
Khan, A.....	HE-11	Kim, S-K.....	CD-04
Khapikov, A.....	GR-08	Kim, T.....	ER-20
Khizroev, S.....	DQ-12	Kim, T-Y.....	EQ-04
Khizroev, S.....	ET-07	Kim, T-Y.....	EU-03
Khizroev, S.....	FT-09	Kim, W.....	FS-02
*Khlopkov, K.....	EB-01	Kim, W.....	FS-03
*Kikitsu, A.....	CC-06	Kim, Y.....	CD-09
Kikitsu, A.....	HA-05	Kim, Y.....	CD-09
Kikuchi, H.....	EA-09	Kim, Y.....	DQ-07
Kikuchi, T.....	ER-09	Kim, Y.....	DR-11
Kikukawa, A.....	DR-02	Kim, Y.....	FT-03
Kildishev, A.....	AD-10	Kim, Y.....	HB-04
Kildishev, A.....	CR-11	Kim, Y-H.....	GS-09
Kim, B.....	GU-09	*Kioseoglou, G.....	AC-02
Kim, B-S.....	FR-06	Kioseoglou, G.....	CD-05
Kim, C.....	CB-09	Kioseoglou, G.....	CT-07
Kim, C.....	CB-09	Kirschner, J.....	CA-09
Kim, C.....	CQ-03	Kirschner, M.....	GU-03
Kim, C.....	CQ-03	Kitamomto, Y.....	FD-02
Kim, C.....	CS-12	Kitamoto, Y.....	CT-01
Kim, C.....	CS-19	Klaassen, K.....	AB-09
Kim, C.....	CT-04	*Klemmer, T.....	CC-03
Kim, C.....	ES-09	Klemmer, T.....	DR-07
Kim, C.....	EU-04	Knigge, B.....	GE-09
Kim, C.....	EU-09	Knobel, M.....	CB-06
Kim, C.....	FQ-01	Knobel, M.....	ET-13
Kim, C-O.....	EQ-06	Knobel, M.....	FD-10
Kim, D.....	CT-03	Ko, H-S.....	DE-06
Kim, D.....	EA-02	Kobatake, S.....	GP-07
Kim, D.....	HC-06	*Kobayashi, K.....	FC-02
Kim, H.....	CT-03	Kobayashi, K.....	FR-01
Kim, H.....	HB-07	Kobayashi, K.....	FR-06
Kim, H-J.....	ED-06	Kobayashi, N.....	GE-03
Kim, H-T.....	HC-07	Kobayashi, N.....	GT-01
Kim, J.....	CT-03	Kobayashi, R.....	FB-12
Kim, J.....	FT-03	Kobe, S.....	EB-10
Kim, J.....	GU-09	*Kobe, S.....	EC-03
Kim, J-H.....	EQ-06	Kobe, S.....	EP-02
Kim, J-H.....	ER-11	Kobe, S.....	FB-11
*Kim, J-Y.....	CC-03	Koda, T.....	DE-03
Kim, K.....	AD-08	Kodama, R.....	HA-10
Kim, K.....	DP-04	Kohira, H.....	GP-06
Kim, K.....	DR-11	Koike, N.....	GC-02
Kim, K.....	ED-06	Kollia, Z.....	EP-02
Kim, K.....	ED-09	Komakine, T.....	FE-04
Kim, K.....	HC-05	Kondo, K.....	HC-03
Kim, K-C.....	GQ-07	*Kondo, R.....	DD-04

*Kondo, R.	FC-02	Lavers, J.	FP-01
Kong, S-H.	AE-06	Lavers, J.	FP-04
Kong, S-H.	DR-09	Lavers, J.	FP-06
Kong, S-H.	DR-11	Lebedev, M.	EU-06
*Konrad, A.	FC-06	Lebedev, M.	FB-12
Kools, J.	FQ-13	Lederman, M.	CE-07
Korenivski, V.	GC-12	Lederman, M.	HE-02
Korman, C.	DP-11	*Ledieu, M.	CB-01
Kostylev, M.	HD-04	Ledieu, M.	FS-10
Kotiuga, R.	GS-10	Ledieu, M.	FS-11
Kovintavewat, P.	DT-06	Lee, B.	CQ-03
Kozlov, A.	GT-01	Lee, B.	CT-03
Kramer, M.	EB-03	Lee, B.	EU-04
Kramer, M.	FB-07	Lee, B-K.	AE-01
Krishnan, K.	FD-07	Lee, B-K.	AE-02
Krishnan, K.	GU-12	Lee, C-H.	ER-10
Kronmuller, H.	DB-02	Lee, C-L.	FQ-13
Krounbi, M.	CE-07	Lee, D.	EB-07
*Kryder, M.	CC-03	Lee, D-H.	ES-01
Kryukov, S.	FQ-04	Lee, D-H.	GU-13
Kuanr, B.	FQ-14	Lee, H.	CD-09
*Kubota, Y.	CC-03	Lee, H.	CT-04
Kubota, Y.	DR-12	Lee, H.	DS-07
Kuchenbrandt, K.	GB-06	Lee, H-J.	ER-11
Kulangara, S.	HE-11	Lee, H-J.	ER-12
Kum, J.	EU-09	Lee, H-S.	DS-04
Kundrotaita, A.	ET-01	Lee, J.	CT-06
Kunz, A.	AA-11	Lee, J.	DP-12
Kuo, J-L.	CR-12	Lee, J.	ER-05
Kuo, P.	DS-06	Lee, J.	ER-14
Kuo, P.	ES-07	Lee, J.	ER-15
Kurita, M.	AB-01	Lee, J.	ER-20
Kurita, M.	GP-06	Lee, J.	GQ-07
Kurtas, E.	DT-06	Lee, J.	GS-09
Kurtas, E.	DT-09	Lee, J-P.	GU-13
Kusagawa, S.	CR-02	Lee, J-W.	CD-04
Kusakawa, K.	GP-11	Lee, K.	AE-01
Kvasnica, S.	CQ-08	Lee, K.	AE-01
Kwon, H-W.	FB-09	Lee, K.	AE-02
Kwon, O.	FP-03	Lee, K.	CT-06
Kwon, O-M.	AD-10	Lee, K.	ES-06
		Lee, K.	ES-06
		Lee, K-J.	ED-02
		Lee, K-J.	GQ-07
		Lee, S.	CS-12
		Lee, S.	CS-19
		Lee, S.	FD-04
		Lee, S.	GQ-09
		Lee, S.	GQ-10
		Lee, S.	GU-09
		Lee, S.	HD-02
		Lee, S-F.	AA-06
		Lee, S-H.	ER-06
		Lee, S-J.	CP-08
		Lee, S-R.	DQ-07
		Lee, S-R.	FT-03
		Lee, T.	DS-07
		Lee, W.	CD-09
		Lee, W.	CT-06
		Lee, W.	ES-06
		Lee, W.	EU-04
		Lee, Y-J.	GU-08
		Leib, J.	FA-07
L			
La Foresta, F.	AD-06		
Lacava, L.	EQ-07		
Lacava, Z.	EQ-03		
Lacava, Z.	EQ-07		
Lacava, Z.	GA-06		
*Lagae, L.	AA-01		
Lagae, L.	GB-05		
Lai, C-H.	DB-08		
Lai, C-H.	DS-10		
Lai, C-H.	EE-05		
Lai, M-F.	ET-09		
Lai, Y-C.	HB-10		
Laidler, H.	DS-09		
Lam, K.	FQ-13		
Landgraf, F.	DP-06		
Langzettel, A.	FA-04		
*Larson, D.	DC-05		
Larson, D.	FT-01		
Larson, D.	HA-03		
Laughlin, D.	DS-04		

Leib, J.....	GB-02	Liu, H.....	CB-10
Lemine, M.....	HA-08	Liu, H.....	CS-14
Lemos, A.....	GA-06	Liu, J.....	DT-02
Lengsfeld, B.....	DR-10	Liu, J.....	DT-04
Leupold, H.....	FB-01	Liu, J.....	DT-12
Leuschner, R.....	GC-12	Liu, J-J.....	GE-10
Levey, C.....	AD-05	Liu, P.....	CE-07
*Li, C.....	AC-02	Liu, S.....	CS-03
Li, C.....	CD-05	Liu, S.....	EB-07
Li, C.....	CT-07	Liu, X.....	CE-03
Li, F.....	ES-03	Liu, X.....	EP-07
Li, G.....	GB-01	Liu, Y.....	CE-07
*Li, G-X.....	EC-01	Liu, Y.....	FT-10
Li, K.....	ED-10	*Liu, Z.....	DA-02
Li, K.....	FA-06	Liu, Z.....	FA-06
Li, K.....	GU-11	Liu, Z.....	FP-08
Li, L.....	AD-11	Lo, C.....	DA-10
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Li, S.....	GR-03	Lo, C.....	GB-02
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Li, T.....	CS-11	Lodder, J.....	DS-03
Li, X-W.....	HD-01	Lodder, J.....	EP-18
Li, Y.....	DT-14	Lograsso, T.....	HD-02
Li, Z.....	GE-10	Lopez-Diaz, L.....	AA-04
Li, Z.....	GR-03	Lopez-Diaz, L.....	CA-01
Liang, L.....	CP-07	Lopez-Diaz, L.....	DP-02
Lie, C.....	ES-07	Lopusnik, R.....	AA-09
Lieu, D.....	CQ-11	*Lu, B.....	CC-03
Lim, B.....	HA-04	Lu, B.....	DR-07
Lim, S.....	DA-06	Lu, B.....	DR-12
Lim, S.....	DP-04	*Lu, B.....	FE-01
Lim, S.....	ED-09	Lu, J.....	DT-11
Lim, S-B.....	DP-12	Lu, Y.....	GC-12
Lim, S-Y.....	DP-12	Lu, Y.....	HE-09
Lim, S-Y.....	ER-14	Lu, Z.....	AD-01
Lim, Y-H.....	AE-01	Ludovic, D.....	CR-01
Lima, E.....	EQ-01	*Ludwig, A.....	FC-03
Lima, E.....	EQ-05	Ludwig, A.....	HD-09
Lima, E.....	ET-10	Ludwig, F.....	GB-06
Lima, E.....	GA-04	Ludwig, M.....	EA-07
Lin, C.....	AD-01	Luepke, G.....	CT-07
Lin, D.....	CS-06	Luk, P.....	GS-03
Lin, K-W.....	FD-09	Luk, P.....	HB-01
Lin, S.....	HB-02	Luk, P.....	HB-03
Lin, S-C.....	HB-05	Luo, P.....	HE-02
Lin, Y.....	AD-05	Luo, Y.....	FR-05
Lisfi, A.....	FQ-08	Lupu, N.....	CS-07
Litsardakis, G.....	CS-04	Lupu, N.....	FS-06
Litsardakis, G.....	CS-05	Lupu, N.....	FS-08
Litsardakis, G.....	DB-11	L'vov, V.....	DA-03
Litvinov, D.....	DQ-12		
Litvinov, D.....	ET-07	M	
Litvinov, D.....	FT-09	Ma, B-M.....	DB-01
Liu, B.....	AB-02	Ma, B-M.....	EB-03
Liu, B.....	AB-05	Ma, B-M.....	EB-04
Liu, B.....	AB-10	Ma, X.....	GE-01
Liu, B.....	GP-01	Ma, X.....	GE-02
Liu, B.....	GP-10	Ma, X.....	HC-10
*Liu, C.....	CC-03	Ma, Y.....	AB-02
Liu, C-T.....	HB-05	Ma, Y.....	FT-01
Liu, F.....	CE-07	Ma, Y.....	HA-03
Liu, F.....	HE-02	Maat, S.....	DE-11

*MacDonald, S.....	CC-01	Matsushita, N.	HC-03
Macheiner, P.	HB-08	Matsushita, N.	HC-05
Machl, J.	HB-08	Matsushita, N.	HC-06
Madami, M.	FQ-12	Matsushita, N.	HC-09
Maeda, T.	FB-12	Matsutomo, S.	ER-17
Maeda, T.	HA-05	*Matsuzaka, K.	DD-01
Maeno, T.	FR-07	Mattheis, R.	GU-01
Maeno, T.	FR-10	Matthew, J.	FT-07
Magni, A.	AA-08	Matthias, T.	DB-09
Magno, R.	CD-05	Mauri, D.	DD-08
Makaveev, D.	EP-06	Mawatari, H.	EA-09
Makita, S.	HE-12	Maybury, D.	FD-11
Makridis, S.	CS-04	Mayeed, M.	GE-08
Makridis, S.	CS-05	Mayergoyz, I.	CA-02
Makridis, S.	DB-11	Mayergoyz, I.	CA-03
Mallary, M.	HE-02	Mazen, S.	EU-08
Mallory, R.	CD-05	Mazumdar, D.	EP-07
Mallory, R.	CT-07	McCallum, A.	FT-02
Mancoff, F.	CD-02	McCallum, R.	FB-07
Mangin, S.	AA-02	McCord, J.	CE-02
Mangin, S.	GU-04	*McCord, J.	DC-06
Mangin, S.	HA-08	McCord, J.	DD-09
Mani, A.	ED-08	McCord, J.	ET-06
Mao, M.	FQ-13	McCord, J.	ET-16
Mao, S.	DQ-05	McCord, J.	GU-01
Mao, S.	DQ-06	McGuinness, P.	EB-10
Mapps, D.	CQ-10	*McGuinness, P.	EC-03
Marchon, B.	GE-05	McGuinness, P.	EP-02
Marchon, B.	GE-06	McGuinness, P.	FB-11
Marchon, B.	GE-09	McKay, S.	GA-01
Marcus, B.	DT-19	McKinstry, K.	DQ-02
Margulies, D.	EE-07	McKirby, D.	DR-03
Margulies, D.	EE-09	McLaughlin, S.	DT-20
*Marinero, E.	CC-02	McMichael, R.	AA-11
Marinova, I.	DP-13	McNeill, K.	FT-07
*Marioni, M.	DA-01	*McVitie, S.	DC-02
Marshall, S.	HE-02	*Meden, T.	EC-03
Martinek, G.	DB-10	Medvedeva, I.	ES-10
Martinez, E.	AA-04	Melkebeek, J.	EP-04
Martinez, E.	CA-01	Melkebeek, J.	EP-06
Martinez, E.	DP-02	Melkebeek, J.	EP-08
Martins, J.	FT-10	Melle, S.	GC-11
Marty, A.	DE-08	Melo, T.	EQ-05
Marukame, T.	GD-02	Mendiratta, R.	HC-08
Marukawa, S.	DT-21	Menendez, J.	DE-08
Maruyama, Y.	AB-01	*Mentes, T.	DC-04
Masada, E.	CR-02	*Mercado, M.	EE-01
Masuda, H.	FA-09	Messner, W.	FE-10
Masuda, H.	HE-10	*Metlushko, V.	DC-03
Masumoto, T.	EA-05	Metlushko, V.	ED-08
Masumoto, T.	GT-01	Metlushko, V.	GC-01
Mathon, O.	FA-03	Miano, G.	GA-05
Matsubara, I.	EU-05	Michel, H.	GU-06
Matsubara, R.	DQ-10	Michor, H.	CS-08
Matsuda, Y.	ER-16	Miguel, C.	FS-05
Matsuki, H.	EA-05	Mikami, M.	EE-02
Matsuki, H.	FR-02	Miles, J.	DR-03
Matsuki, H.	FR-03	Miller, D.	FB-05
Matsuki, H.	FR-05	Min, B.	HC-07
Matsuki, H.	GS-06	*Mirzamaani, M.	EE-01
Matsunuma, S.	DE-03	*Mishima, C.	EB-01
Matsushita, N.	EA-02	Mishima, C.	EB-09
Matsushita, N.	HC-02	Mitarai, H.	CS-17

Mitarai, H.	EB-09	Muraoka, H.	CE-04
Mitrovic, N.	CB-08	Muraoka, H.	CE-11
Mitsumata, C.	GU-07	Muraoka, H.	DQ-10
Mitsuya, Y.	GE-07	Muraoka, H.	DR-01
Miura, K.	GR-01	Muraoka, H.	DR-08
Miyashita, E.	EP-16	Muraoka, H.	DT-13
Miyashita, E.	GR-02	Muraoka, H.	DT-18
Miyazawa, S.	GP-07	Muraoka, H.	GR-01
Miyazawa, Y.	EA-03	Muraoka, H.	HE-01
Mochizuki, M.	CE-09	Murdock, E.	DQ-06
Moghani, J.	DP-07	Myoung, J.	CT-06
Mohler, G.	FD-11		
Mohri, K.	GB-09	N	
Mohri, K.	GB-11	Nadeau, J.	EP-01
Momose, S.	FD-03	Nagai, T.	EP-11
Monson, J.	DR-05	*Nagasaka, K.	DD-04
Montaigne, F.	AA-02	Nagase, T.	HA-05
Montaigne, F.	GU-04	Nagashima, K.	CR-05
Montiel, H.	CB-11	Nagata, K.	GP-07
Montoncello, F.	GC-09	Nahid, M.	HA-06
Moon, E-J.	CP-11	*Naito, K.	CC-06
Moore, R.	FD-11	*Nakabayashi, R.	DD-01
Morais, P.	EQ-01	Nakagawa, H.	DE-02
Morais, P.	EQ-02	Nakagawa, H.	HA-01
Morais, P.	EQ-03	Nakagawa, S.	AE-06
Morais, P.	EQ-05	Nakagawa, S.	DR-09
Morais, P.	EQ-07	Nakagawa, S.	DR-11
Morais, P.	ET-10	Nakagawa, S.	HA-02
Morais, P.	GA-03	Nakagawa, T.	DT-08
Morais, P.	GA-04	Nakamoto, K.	CE-09
Morais, P.	GA-06	Nakamura, A.	AE-12
Morchshakov, V.	ES-10	Nakamura, A.	FE-03
Morgan, M.	CR-11	Nakamura, K.	ER-08
Mori, A.	GE-03	Nakamura, K.	ER-09
*Morita, S.	CC-06	Nakamura, K.	GB-08
Morita, T.	DT-25	Nakamura, M.	EP-14
Moriya, R.	CT-01	Nakamura, M.	GC-05
Morozumi, T.	ES-02	Nakamura, S.	HE-10
Morrone, A.	FT-01	Nakamura, T.	HC-02
Moser, A.	AE-05	Nakamura, T.	HC-03
Moser, A.	DE-09	Nakamura, Y.	CE-04
Moser, A.	EE-07	Nakamura, Y.	CE-11
Moser, A.	EE-09	Nakamura, Y.	DQ-10
Motohashi, K.	DS-02	Nakamura, Y.	DR-01
Motoyama, M.	CB-02	Nakamura, Y.	DR-08
*Motsnyi, V.	AC-04	Nakamura, Y.	DT-13
Motsnyi, V.	CD-07	Nakamura, Y.	DT-13
Moura, J.	DT-11	Nakamura, Y.	DT-18
Mukasa, K.	CD-06	Nakamura, Y.	GR-01
Mukasa, K.	EP-12	Nakamura, Y.	HE-01
Mukasa, K.	EP-14	Nakano, M.	CS-01
Mukasa, K.	GC-05	Nakano, M.	FS-04
Mukherjee, S.	FT-09	Nakatani, Y.	DP-01
Mukhopadhyay, S.	CR-04	Nakazawa, S.	GP-11
*Müller, K.	EB-01	Nam, J-H.	HC-07
Müller, K-H.	DB-10	Namikawa, M.	CB-02
Müller, K-H.	EB-06	Namizaki, Y.	CP-10
Müller, R.	CQ-09	Naoufal, F.	CR-13
Munakata, M.	CB-02	Narishige, S.	EE-11
Munekata, H.	CT-01	Natacha, S.	DR-10
Mungle, C.	GB-03	Navarro, E.	FQ-04
Muñoz, J.	EU-05	Navas, D.	GC-11
Murakami, M.	GT-06	Neagu, M.	FS-09

Nemoto, H.....	DE-02	Oka, H.....	CP-10
Nemoto, H.....	HA-01	Oka, M.....	GP-11
Neu, V.....	EB-08	Okada, A.....	GT-05
Neu, V.....	HA-07	Okamoto, T.....	AE-06
New, R.....	DT-19	Okamoto, T.....	DR-09
Ng, K.....	GP-01	Okamoto, Y.....	DT-13
Ng, V.....	GC-04	Okamoto, Y.....	DT-18
Nguyen, S.....	DD-08	Okamoto, Y.....	DT-21
Niarchos, D.....	CS-04	Okanuma, S.....	ER-21
Niarchos, D.....	CS-05	Oku, T.....	FD-06
Niarchos, D.....	DB-11	Oliveira, A.....	ET-10
Niarchos, D.....	FQ-03	Oliveira, A.....	GA-03
Nibarger, J.....	AA-09	Olivier, L.....	GU-06
Nickel, J.....	ED-03	Olivier, W.....	CR-01
Niensch, K.....	GC-11	Ong, K.....	DA-09
Nikitin, S.....	CS-09	Ong, K.....	GB-03
Nikles, D.....	ET-11	Ono, H.....	DS-01
*Nikles, D.....	FD-01	Ono, T.....	HE-06
Nishida, Y.....	DE-02	Onodera, S.....	DS-02
Nishikawa, M.....	EA-12	Onuma, T.....	DE-03
Nishimura, K.....	GT-02	Oral, A.....	FA-09
*Nishio, H.....	FC-04	O'Reilly, C.....	FQ-06
Nishio, H.....	FD-02	Osaka, T.....	CE-01
Nishiyama, Y.....	DD-05	Osawa, H.....	DT-13
Nitta, S-I.....	FR-05	Osawa, H.....	DT-18
Nittono, O.....	AD-04	Osawa, H.....	DT-21
Nizzoli, F.....	GC-09	*Oshima, H.....	DD-04
Noguchi, S.....	ER-17	O'Sullivan, E.....	GC-12
Noh, M.....	FB-04	Oswald, S.....	EB-08
Nolan, T.....	HA-03	Otsuki, A.....	EP-16
Nonaka, T.....	GS-06	Ouchi, K.....	AE-09
Nordman, C.....	GD-03	Ouchi, K.....	CE-11
Novak, M.....	GA-04	Ouchi, K.....	FE-04
Nowak, J.....	ES-04	Owen, N.....	ET-02
Nunes, W.....	GA-04	Ozgunes, I.....	HE-03
Nyenhuis, J.....	CR-11	Ozue, T.....	DQ-09
*Nyenhuis, J.....	EC-02	Ozue, T.....	DS-01
O'Donnell, T.....	EA-07		
O'Mathuna, C.....	EA-07		
O			
Oates, C.....	FD-04	Paek, S.....	FB-04
Obol, M.....	EU-01	Pakhomov, A.....	FD-07
Ochiai, T.....	ES-05	Palmer, D.....	EP-10
O'Connor, C.....	CT-05	Palmer, D.....	GR-07
Odai, S.....	DQ-04	Panabiere, M.....	DQ-01
Ogiue-Ikeda, M.....	FR-08	Panagiotopoulos, I.....	CS-04
O'Grady, K.....	DR-12	Panagiotopoulos, I.....	CS-05
Ogrin, F.....	FD-04	Panagiotopoulos, I.....	DB-11
Oh, H-S.....	AE-01	Pandana, H.....	ET-04
Oh, H-S.....	AE-02	Pandana, H.....	FA-08
Oh, S.....	DS-07	Panina, L.....	CQ-10
*O'Handley, R.....	DA-01	Papathanasiou, G.....	CS-04
*Ohashi, K.....	DB-03	Papathanasiou, G.....	CS-05
Ohkoshi, M.....	ET-05	Paperno, E.....	CQ-04
Ohnishi, M.....	EA-02	Papusoi, C.....	DS-05
Ohno, H.....	CD-06	Pardavi-Horvath, M.....	HD-03
*Ohnuma, S.....	FC-01	Park, C.....	GD-01
Ohnuma, S.....	GT-01	Park, D-G.....	CP-11
*Oshima, M.....	DD-01	Park, J.....	CQ-11
*Ohta, K.....	FC-02	Park, J.....	FS-02
Oikawa, T.....	DR-08	Park, J.....	GS-02
Oiwa, A.....	CT-01	Park, J-H.....	GT-02
		Park, J-S.....	DQ-07
		Park, J-W.....	EA-04

Park, J-W.	ES-01	Qiu, J.	ED-10
Park, K.	HB-04	Qiu, J.	FA-06
Park, N-Y.	AE-01	Qiu, J.	GU-11
Park, N-Y.	AE-02	*Quandt, E.	FC-03
Park, S.	FP-07	Quandt, E.	HD-09
Park, S.	GS-12	Queiroz Jr, I.	ET-14
Park, S-I.	EQ-06		
Park, S-S.	CP-11	R	
Park, S-S.	GQ-02	Raabe, J.	FA-02
Park, W.	DR-11	Rabelo, D.	ET-10
Park, W.	ED-02	Raberg, W.	GC-12
Park, Y.	CD-09	Radhakrishnan, R.	FB-08
Parker, F.	AA-10	Rahman, M.	ET-01
Parker, G.	GR-05	Rahman, M.	GQ-05
*Parkin, S.	CC-02	Rais, A.	EU-08
Parvin, K.	ET-12	Rajagopal, K.	CP-06
Pascarelli, S.	FA-03	Rajagopal, K.	ER-01
Pasquale, M.	DA-03	Rajagopal, K.	ER-03
Pasquale, M.	DA-06	Rajagopal, K.	ER-18
Patton, C.	HD-04	Rajagopal, K.	GQ-11
Patton, C.	HD-05	Rajagopal, K.	GQ-12
*Paul, D.	DA-01	Ramadurai, B.	GU-02
Paul, J.	CE-02	Rantschler, J.	AD-09
Paulsen, J.	DA-10	Rantschler, J.	CE-03
Paulsen, J.	FA-05	Raposo, V.	CB-05
Paulsen, J.	GB-02	Raposo, V.	ES-08
Pelegriani, F.	EQ-02	Ravelosona, D.	DE-08
Pelegriani, F.	EQ-07	Re, M.	CE-07
Peng, D.	ET-11	Re, M.	HE-02
Peng, Y.	GD-01	Rebouças, G.	ET-14
Peng, Z.	ES-03	*Recarte, V.	AD-03
*Perez-Landazabal, J.	AD-03	Redjdal, M.	ET-15
Permiakov, V.	EP-08	Reed, D.	ED-05
*Peterson, B.	DA-01	Reiss, G.	FQ-07
Peterson, P.	GE-06	Reiss, G.	FT-04
*Petford-Long, A.	DC-05	Reiss, G.	GD-11
Petford-Long, A.	ET-02	Ren, Y.	CT-07
Petford-Long, A.	FT-01	Restorff, J.	DA-07
Petford-Long, A.	HA-03	Rettner, C.	DD-07
Petrou, A.	CD-05	Rettner, C.	DE-09
Petrou, A.	CT-07	*Reyne, G.	GB-04
Pettifer, R.	FA-03	*Reynet, O.	CB-01
Pierre, P.	GU-06	Rhee, C.	FS-02
Ping, D-H.	EB-03	Rhee, C.	FS-03
Pirota, K.	FS-13	Rheem, Y.	CB-09
Pit, R.	GE-05	Rheem, Y.	CQ-03
Platt, C.	DR-12	Rhen, F.	FQ-06
Plotkin, A.	CQ-04	*Rice, P.	CC-02
Podmiljsak, B.	EB-10	*Richard, M.	DA-01
*Polcyn, A.	EE-01	*Richter, H.	DE-01
Popella, H.	GQ-01	Ring, A.	DA-10
Postolache, P.	DP-08	Ring, A.	GB-02
Prabhakaran, S.	EA-06	Rizzo, N.	CD-02
Prakash, C.	HC-08	Rizzo, N.	ED-04
Pride, A.	GQ-03	*Robinson, D.	EC-01
Pulnikov, A.	EP-08	Rodewald, W.	EB-02
Pulyer, Y.	GS-08	Rodriguez, A.	ET-10
Puzic, A.	FA-02	Rogalski, M.	FQ-05
		Rogalski, M.	FT-08
Q		Rohde, I.	FQ-07
Qian, Z.	GB-07	Rohde, I.	FT-04
Qian, Z.	GD-03	Rooks, M.	GC-12
Qin, R.	GQ-05	Roscamp, T.	GR-05

*Ross, C. DC-03
 Ross, C. FA-01
 Ross, C. FS-01
 Ross, C. GC-06
 Ross, C. GT-03
 Roth, S. CB-08
 Rottmayer, R. DQ-12
 Rotunno, M. DT-27
 Roy, A. AD-04
 Ruane, M. ET-15
 Ruangsinchaiwanich, S. ER-04
 Russek, S. DD-03
 Russek, S. FT-02
 Ryan, P. HA-10
 Ryan, W. HE-04

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Sablik, M. DP-06
 Saegusa, S. HE-10
 Safarik, I. GA-06
 Safarikova, M. GA-06
 *Safarov, V. AC-04
 Safarov, V. CD-07
 Sagawa, S. ER-07
 Sahu, S. DT-10
 Saito, A. HE-06
 Saito, H. DT-13
 Saito, H. DT-18
 Saito, H. EP-18
 Saito, K. ER-08
 Saito, M. DD-05
 Saito, T. CR-03
 Saito, T. CS-15
 Saito, Y. DP-13
 Saito, Y. ES-05
 Saito, Y. FP-09
 *Saitoh, S. DD-01
 Sakai, Y. AE-03
 Sakai, Y. AE-07
 Sakai, Y. EP-16
 Sakamoto, H. ER-16
 Sakuma, A. GD-07
 Sakuma, H. FD-02
 Sakurada, K. GC-02
 *Sakurai, M. CC-06
 Salazar, A. ER-02
 Salon, S. AD-10
 Salon, S. FP-02
 Salon, S. FP-03
 Sampaio, L. GA-04
 Sampath, S. EU-02
 Samson, Y. DE-08
 Sanchez-Hanke, C. FA-01
 *Sánchez-Hanke, C. DC-04
 Sandhu, A. FA-09
 Sandler, G. GR-03
 Sankaranarayanan, S. DT-09
 Sano, H. CQ-10
 Santi, L. AA-08
 Santos, J. EQ-02
 *Sarantopoulou, E. EC-03
 Sarantopoulou, E. EP-02
 Sasada, I. CR-05

Sasada, I. CR-09
 Sasada, I. EP-09
 Sascha, D. ET-06
 Sasso, C. DA-03
 Sasso, C. DA-06
 Sasso, C. EP-05
 Sato, F. EA-05
 Sato, F. FR-02
 Sato, F. FR-03
 Sato, F. FR-05
 Sato, F. GS-06
 Sato, K. CP-03
 Sato, T. CP-03
 Sato, T. FR-02
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 Satoru, Y. EE-02
 Sato-Turtelli, R. CS-08
 Sawada, M. DT-25
 Sawaguchi, H. DT-08
 Sawai, J. HE-12
 *Schäfer, R. DC-06
 Schäfer, R. ET-16
 Schare, J. DQ-12
 Schilling, M. GB-06
 Schlagel, D. HD-02
 Schlesinger, T. ET-07
 Schmalhorst, J. GD-11
 Schmitte, T. ET-16
 Schneider, T. FQ-13
 Schoenstein, F. FS-11
 Schofield, N. ER-04
 Scholz, W. CA-05
 Scholz, W. DB-09
 Scholz, W. ED-01
 Schrag, B. EP-07
 Schrag, B. EP-15
 Schrefl, T. AE-10
 Schrefl, T. CA-05
 Schrefl, T. CA-07
 Schrefl, T. DB-09
 Schrefl, T. ED-01
 Schrefl, T. GU-03
 Schuetz, G. FA-02
 Schultz, J. FD-11
 Schultz, L. DB-10
 *Schultz, L. DC-06
 Schultz, L. EB-06
 Schultz, L. EB-08
 Schultz, L. ET-16
 Schultz, L. HA-07
 Schwickert, M. GD-09
 Scott, M. HD-04
 Seemann, K. ET-06
 Sehrbrock, A. HD-09
 Seigler, M. FA-04
 Sekiguchi, H. EP-11
 Sekino, M. FR-09
 Sekino, N. CP-10
 Sellmyer, D. DB-07
 Semba, T. DT-22
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Sendoh, M.	CR-08	Silva, L.	EQ-01
Sendoh, M.	FR-02	Silva, L.	EQ-03
Serpico, C.	CA-02	Silva, L.	GA-06
Serpico, C.	CA-03	Silva, O.	EQ-01
Serpico, C.	DP-10	Silva, O.	EQ-07
Serpico, C.	GA-05	Silva, O.	GA-04
*Seyama, Y.	DD-04	Silva, T.	AA-09
Shalyguina, E.	CB-09	Silva, T.	AA-10
Shames, A.	HC-09	Silveira, L.	EQ-02
Shang, J.	FB-02	Singh, A.	HC-08
Shao, K.	FP-01	Singh, B.	ER-01
Shao, K.	FP-04	Singh, B.	ER-01
Shao, K.	FP-06	Singh, B.	GQ-11
Shatz, T.	DD-08	Singh, B.	GQ-11
Shen, C.	FQ-02	Sinnecker, J.	GA-04
Shen, W.	EP-07	Sirisathitkul, C.	CD-08
Shen, Y.	DA-10	Sivasubramaniam, K.	FP-03
Shen, Y.	FA-06	Skeff-Neto, K.	EQ-01
Shen, Y.	FA-07	Skomski, R.	DB-07
*Sheng, F.	AC-06	Skorvanek, I.	AD-02
Sheng, G.	GP-04	Skumryev, V.	FQ-03
Sheth, N.	CP-06	Slaughter, J.	ED-04
Sheth, N.	ER-18	Slavin, A.	GC-07
Shi, Y.	GD-01	Smallen, M.	GP-13
Shi, Y.	GQ-03	Smith, B.	DB-01
Shieh, W.	EP-13	Smith, B.	EB-04
Shiga, D.	CE-01	Smith, D.	AA-10
Shigematsu, S.	DD-10	*Smith, D.	AC-05
Shih, J.	FQ-02	Smith, D.	DA-05
Shih, R.	GE-01	Smith, D.	GU-02
Shiiki, K.	ES-02	*Smith, H.	DC-03
Shim, I.	ES-09	Smith, H.	FA-01
Shim, I-B.	CS-12	Smith, H.	GC-06
Shim, I-B.	CS-19	Snodgrass, J.	DA-07
Shim, I-B.	CT-04	Snyder, J.	DA-10
Shim, I-B.	EU-09	Snyder, J.	FA-07
Shima, M.	FS-01	Snyder, J.	GB-02
Shimada, Y.	CB-02	Snyder, J.	HD-02
*Shimada, Y.	FC-01	Sobey, C.	DT-01
Shimada, Y.	HC-03	Socino, G.	FQ-12
Shimada, Y.	HC-09	Socolovsky, L.	ET-13
Shimasaki, H.	HD-06	Socolovsky, L.	FD-10
Shimatsu, T.	CE-04	Soda, Y.	DS-01
Shimatsu, T.	DR-08	Soda, Y.	HE-12
Shimatsu, T.	HE-01	Soler, M.	EQ-05
Shimizu, J.	FR-02	Sommer, R.	AA-08
*Shimizu, Y.	DD-04	Somu, S.	HD-07
Shimoe, O.	EA-09	Song, H.	DT-02
Shin, K.	ES-06	Song, H.	DT-04
Shin, M.	CD-09	Song, H.	DT-10
Shin, S-C.	CD-04	Song, H.	DT-12
Shin, S-C.	DE-06	Sonobe, Y.	DR-01
Shin, S-C.	FQ-11	Sonobe, Y.	DR-10
Shin, S-C.	GC-10	Sonoda, T.	HB-06
Shinohara, M.	EE-10	Sorescu, M.	EB-11
Shinoura, O.	CQ-07	Souchon, F.	DQ-01
Shiokawa, M.	EP-09	Sousa, J.	FT-08
Shirakawa, K.	EA-05	Souza, H.	ET-14
Shoulaie, A.	HB-09	Spada, F.	DA-05
Shu, X.	CA-11	*Spanos, G.	AC-02
*Shukla, N.	CC-03	Speliotis, T.	FQ-03
Shutoh, K.	CR-02	Spinu, L.	CA-10
Sicot, M.	GD-12	Spinu, L.	CT-02

Spinu, L.....	EU-07	*Suzuki, T.....	FC-02
Stancu, A.....	CA-10	Suzuki, T.....	FD-09
Stancu, A.....	DP-08	Suzuki, T.....	FT-06
Stancu, A.....	DP-09	Suzuki, T.....	HA-06
Stehno, M.....	AE-10	Suzuki, Y.....	AE-12
Steiner, P.....	DT-14	Suzuki, Y.....	GR-06
Steiner, P.....	GR-04	Suzuki, Y.....	GT-04
Stéphane, S.....	HA-11	Svedberg, E.....	ET-07
Stirniman, M.....	GE-01	Svedberg, E.....	GC-03
Stirniman, M.....	GE-02	Sylvie, R.....	GU-06
Stoev, K.....	CE-07		
Stoev, K.....	HE-02	T	
Stokes, S.....	DQ-05	Tabat, N.....	DQ-05
Stoleriu, L.....	CA-10	Tacchi, S.....	FQ-12
Stoleriu, L.....	DP-08	Tagawa, N.....	GE-03
Stoleriu, L.....	DP-09	Tagliaferri, A.....	GD-12
Stoll, H.....	FA-02	Taguchi, R.....	EP-16
Straka, L.....	DA-04	Taguchi, R.....	GR-02
*Strazisar, J.....	EC-03	Tahk, Y.....	DS-07
Stroud, R.....	CD-05	Takagi, H.....	GT-02
Stroud, R.....	CT-07	Takagi, T.....	FR-05
Stumberger, B.....	GS-04	*Takahashi, A.....	DD-01
Štumberger, G.....	GS-04	Takahashi, A.....	DD-05
Su, L.....	GP-06	Takahashi, K-I.....	FS-04
Su, X.....	GC-04	Takahashi, M.....	EE-02
Subrahmanyam, J.....	DT-23	Takahashi, M.....	EE-06
Sueoka, K.....	CD-06	Takahashi, Y.....	DE-02
Sueoka, K.....	EP-12	Takahashi, Y.....	EA-12
Sueoka, K.....	EP-14	Takakuma, I.....	DE-02
Sueoka, K.....	GC-05	Takakuwa, Y.....	EE-06
Suess, D.....	CA-05	Takano, K.....	AE-05
Suess, D.....	DB-09	Takano, K.....	DR-10
Suess, D.....	ED-01	Takasaki, Y.....	HB-06
Suess, D.....	GU-03	Takashima, K.....	CE-01
Sugawara, E.....	CP-01	Takatu, M.....	DT-25
Sugawara, E.....	EA-05	Takehara, S.....	FR-04
*Sugawara, K.....	FC-06	Takekuma, I.....	AE-04
Sugawara, T.....	DT-25	Takenoiri, S.....	AE-03
Sugimoto, S.....	ES-05	Takenoiri, S.....	AE-07
Sugimoto, S.....	EU-06	Takenoiri, S.....	EP-16
Sugimoto, S.....	FB-12	Takenoiri, S.....	HE-06
Sugita, Y.....	AE-12	Takezaki, T.....	EP-14
Sugita, Y.....	FE-03	Takezawa, M.....	CP-04
Suh, S-J.....	ES-01	Takezawa, M.....	ET-03
Suh, S-J.....	GU-13	Talebi, H.....	DP-07
Sullivan, C.....	AD-05	Talke, F.....	AB-06
Sullivan, C.....	EA-06	Talke, F.....	AB-08
Sullivan, J.....	CT-07	Talke, F.....	DT-27
Sun, A.....	DS-06	Talke, F.....	GP-03
Sun, B.....	CT-07	Tamai, I.....	AE-04
Sun, N.....	EA-01	Tamaki, T.....	EP-16
*Sun, S.....	EC-01	Tamaki, T.....	GR-02
Sun, S.....	FD-04	Tan, T.....	FT-05
Sun, X.....	ET-11	Tan, W.....	DT-17
Sun, X.....	ET-12	*Tanabe, S.....	FC-06
Sunder, A.....	FA-11	Tanahashi, K.....	DR-02
Sung, H-G.....	GQ-02	*Tanaka, A.....	DD-04
Supnithi, P.....	DT-20	Tanaka, K.....	GP-09
Supper, N.....	EE-09	Tanaka, S.....	GT-04
Suzim, A.....	GS-13	Tanaka, T.....	FQ-09
Suzuki, T.....	DE-05	Tang, J.....	CT-02
Suzuki, T.....	DE-07	Tang, J.....	CT-05
Suzuki, T.....	DS-05	*Tang, K.....	EE-01

Tang, W.	DB-02	Tsujimoto, H.	EA-08
Tang, W.	FB-06	Tsutsumi, M.	HD-06
Tang, Y.	DA-05	Tsutsumi, S.	CS-01
Taniguchi, T.	GB-08	Tung, L.	CT-02
Tanimoto, S.	ER-17	Turban, P.	GD-12
Taniyama, T.	CT-01	Turgut, Z.	DB-01
Tapan K., B.	GS-11	Turgut, Z.	FS-07
Tashiro, K.	CR-05	Twisselmann, D.	AA-11
Tashiro, K.	CR-09	Tzeng, S-C.	GP-08
Tateyama, T.	GE-03		
Taylor, W.	CQ-01	U	
Te Lintelo, H.	EP-04	Uchida, H.	GT-02
Teerhuis, A.	HE-08	Uchikawa, Y.	FR-01
Tegus, O.	HD-01	Uchikawa, Y.	FR-06
Tehrani, S.	CD-02	Ueda, T.	HD-06
Tehrani, S.	ED-04	Ueda, Y.	HD-06
Télliez-Blanco, J.	CS-10	Uemura, T.	GD-02
Tepper, T.	GT-03	Ueno, K.	CQ-10
Tereshina, E.	CS-09	Ueno, S.	FR-07
*Teresiak, A.	EB-01	Ueno, S.	FR-08
Terrill, D.	HE-07	Ueno, S.	FR-09
Terris, B.	DE-09	Ueno, S.	GB-10
Terris, B.	FD-04	Uesaka, Y.	AE-10
*Tewes, M.	FC-03	Uesaka, Y.	DP-01
Tezuka, N.	ES-05	Uestuener, K.	EB-02
Tezuka, N.	GC-02	Uhm, Y.	FS-02
Thakur, O.	HC-08	Uhm, Y.	FS-03
Thiele, J-U.	DE-04	*Umetsu, E.	DD-01
Thiele, J-U.	DE-11	Unruh, K.	CB-03
Thierry, G.	HA-11	Usami, K.	GB-11
Thomas, A.	GD-11	Usov, N.	ET-09
Thompson, S.	CD-08	Ustinov, A.	HD-10
Thompson, S.	FT-07	Uwazumi, H.	AE-03
Thomson, T.	DE-04	Uwazumi, H.	AE-07
Thomson, T.	FD-04		
Thornton, B.	AB-04	V	
Thu Win, M.	FT-05	Valeanu, M.	EB-11
Tibu, M.	FS-06	Valenzuela, R.	CB-07
Tokoro, H.	FD-06	Valenzuela, R.	CB-11
Tokuta, H.	CP-10	Van De Veerdonk, R.	DR-07
Tokuyama, M.	AB-01	Van Den Bos, A.	EP-18
Tokuyama, M.	GP-06	Van Der Heijden, P.	CE-10
Tokuyama, M.	HE-10	Van Der Heijden, P.	DQ-11
Tondra, M.	GB-07	*Van Dorpe, P.	AC-04
Tondra, M.	GD-03	Van Dorpe, P.	CD-07
Tonoike, M.	FR-04	Van Dorpe, P.	GB-05
Torabi, A.	FE-07	Van Peppen, J.	AB-09
Torres, C.	EU-05	*Van Roy, W.	AC-04
Torres, L.	AA-04	Van Roy, W.	CD-07
Torres, L.	CA-01	*Van Wees, B.	CD-10
Torres, L.	DP-02	Vanhelmont, F.	GD-05
Traistaru, O.	GU-05	Vaquez, M.	GC-11
Tran, L.	ED-03	Vargas, J.	ET-13
Triyono, D.	CS-08	Vasic, B.	DT-09
Trlep, M.	GS-04	Vavassori, P.	GC-08
Tronconi, A.	GA-03	Vazquez, M.	FS-12
Trouilloud, P.	GC-12	Vazquez, M.	FS-13
Tsai, J-L.	AA-06	Vázquez, M.	CB-05
Tsai, P.	EE-05	Vedpathak, M.	HA-10
Tseng, T-K.	DB-08	Velazquez, J.	FS-13
Tsiantos, V.	CA-05	Venkatachalam, K.	EA-06
Tsiantos, V.	DB-09	*Vescovo, E.	DC-04
Tsuchiyama, R.	GP-06	Viala, B.	DQ-01

Viallet, D.	GS-07	Wei, Z-H.	AA-07
Vicent, J.	FQ-04	Wei, Z-H.	ET-09
Victoria, R.	AE-11	*Weller, D.	CC-03
Villegas, J.	FQ-04	Weller, D.	FD-05
Vinh, T.	HE-07	*Weller, D.	FE-01
Visone, C.	DP-10	White, M.	DT-22
Visscher, P.	CA-08	White, R.	DE-09
Vittoria, C.	EU-01	*White, R.	EC-01
Vittoria, C.	HC-04	White, R.	GD-01
Vittoria, C.	HD-07	White, R.	GE-06
Vittoria, C.	HD-08	Whittenburg, S.	DP-03
Vopsaroiu, M.	FT-07	*Wickramasinghe, H.	FA-10
Voss, S.	EA-10	Wiesen, K.	FE-11
		Wiesinger, G.	CS-08
W		Williams, C.	FQ-08
Wada, T.	GD-04	Wilson, B.	DT-19
Wada, Y.	CP-04	Winarski, R.	HA-10
Wakiwaka, H.	CQ-07	*Wirix-Speetjens, R.	EC-05
Wakiwaka, H.	GB-08	Wolbank, T.	HB-08
Wakou, N.	CP-01	*Wolf, S.	AC-01
Wakou, N.	EA-05	Woo, C.	DT-05
Wall, B.	EB-02	Wright, G.	GC-12
Wan, J.	FD-05	Wu, G.	CS-16
Wang, D.	GB-07	*Wu, G.	DA-02
Wang, D.	GD-03	Wu, J.	AA-07
Wang, F.	GS-05	Wu, J.	EP-13
Wang, H.	EB-05	Wu, J.	ET-09
Wang, J.	CE-07	Wu, K.	CS-14
Wang, J.	CS-16	Wu, M.	HC-10
Wang, J.	DD-08	Wu, T-H.	EP-13
Wang, J.	ET-08	Wu, W.	CS-14
Wang, J.	FB-03	Wu, W.	EA-11
Wang, J.	FE-09	Wu, W.	GS-01
Wang, J.	FQ-10	*Wu, X.	CC-03
Wang, J.	FQ-13	Wu, X.	DR-07
Wang, J.	HA-04	Wu, X.	FT-09
Wang, L.	AD-01	Wu, Y.	DD-06
Wang, L.	DQ-06	Wu, Y.	ED-10
Wang, L.	DQ-08	Wu, Y.	FA-06
Wang, L.	DR-04	Wu, Y.	GU-11
Wang, M.	HE-07	Wu, Y-Q.	EB-03
Wang, S.	EA-01	Wun-Fogle, M.	DA-07
*Wang, S.	EC-01		
Wang, S.	GB-01	X	
Wang, W.	ES-03	Xia, H.	DT-15
Wang, X.	FE-05	Xia, Z.	GQ-03
Wang, Y.	GQ-06	*Xiang, X.	AC-06
Wang, Z.	CT-02	Xiao, G.	EP-07
Washimiya, S.	ER-16	Xiao, G.	EP-15
Watababe, S.	EP-16	*Xiao, J.	AC-06
Watanabe, A.	CS-18	Xiao, J.	CB-03
Watanabe, A.	FB-10	Xiao, J.	FD-08
Watanabe, H.	GT-04	Xiao, M.	AE-05
Watanabe, I.	HE-01	*Xiao, Q-F.	EE-01
Watanabe, S.	AE-03	Xiao, Y.	CS-11
Watanabe, S.	AE-07	Xiong, G.	AA-05
Watanabe, T.	ER-07	Xiong, G.	ED-11
Watanabe, T.	ER-09	Xiong, X.	CE-05
Watanabe, T.	GP-05	*Xiong, X.	DB-03
Watazawa, Y.	FP-09	Xu, B.	GU-05
Watson, M.	DQ-02	Xu, H.	HE-05
*Webb, C.	EC-01	Xu, J.	AB-01
Wehrspohn, R.	GC-11	Xu, J.	GP-06

Xue, J.	AE-11	Yonnet, J.	GS-07
Y		Yoon, C.	FQ-01
Yabukami, S.	CB-02	Yoon, D-H.	ES-01
Yabukami, S.	EA-09	Yoon, S.	CB-09
Yagi, M.	CB-02	Yoon, S.	CQ-03
Yamada, H.	HE-01	Yoon, S-D.	HD-08
Yamada, S.	CR-04	Yoon, S-J.	GP-02
Yamada, S.	GB-08	Yoon, S-Y.	ES-01
Yamada, Y.	GC-05	Yoon, S-Y.	GU-13
Yamagishi, H.	CQ-07	Yoshida, S.	HC-03
Yamaguchi, K.	FR-09	Yoshikawa, H.	HA-02
Yamaguchi, M.	AD-08	Yoshimi, H.	GS-06
Yamaguchi, M.	CB-02	Yoshimura, S.	EE-06
Yamaguchi, M.	EA-03	Yoshimura, Y.	GP-06
Yamaguchi, M.	EA-05	Yosizawa, Y.	FS-04
*Yamaguchi, M.	FC-01	Yousif, A.	EU-08
Yamaguchi, M.	HC-05	Ytreberg, M.	GA-01
Yamaguchi, T.	GT-05	Yu, C-C.	GU-10
Yamakawa, K.	CE-11	Yu, M.	EE-03
Yamamoto, C.	FR-04	Yu, S.	AB-05
Yamamoto, H.	FD-02	*Yu, Z.	AC-03
Yamamoto, M.	GD-02	Yuan, E.	AE-11
Yamamoto, T.	FR-04	Yuan, Z.	GP-01
Yamane, H.	AE-09	Yue, M.	CS-11
Yamasaki, J.	CP-04	Yumoto, M.	GB-10
Yamasaki, J.	ET-03		
Yamasawa, K.	CP-03	Z	
Yamashita, F.	CS-01	Zabel, H.	ET-16
Yamashita, F.	CS-18	Zamboni, W.	GA-05
Yamashita, F.	FB-10	Zamorano, R.	CB-11
Yamashita, H.	ER-17	Zanchet, D.	ET-13
Yamazaki, A.	CQ-02	Zangari, G.	CE-03
Yamazaki, K.	CR-06	Zangeneh, B.	HB-09
Yamazaki, K.	CR-07	Zanke, C.	HD-09
Yamazaki, Y.	EQ-04	Zapperi, S.	AA-08
Yamazaki, Y.	FD-02	Zazo, M.	ES-08
Yambe, T.	FR-05	Zeng, Q.	AB-03
Yan, A.	DB-10	Zeng, Q.	FB-08
Yan, A.	EB-06	Zeng, W.	DT-03
Yan, J.	HD-03	Zhan, W.	ES-03
Yan, Q.	EU-02	Zhang, F.	CP-03
Yamagisawa, K.	CP-03	Zhang, H.	GR-04
Yanai, T.	FS-04	Zhang, J.	AB-08
Yang, H.	EU-04	Zhang, J.	CS-11
Yang, J.	HE-09	*Zhang, J.	EE-01
Yang, S.	HE-04	Zhang, J.	GP-04
Yano, A.	DE-03	Zhang, L.	HD-01
Yao, Y.	CS-14	*Zhang, M.	DA-02
Yao, Y.	GU-10	Zhang, M.	GP-10
Yao, Y-D.	AA-06	Zhang, S.	DD-08
Yao, Y-D.	EP-17	Zhang, X.	CS-02
Yasar, M.	CD-05	Zhang, X.	GQ-13
Yasar, M.	CT-07	Zhang, Y.	DB-02
Yeh, N-H.	DT-14	Zhang, Y.	EB-05
Yellen, B.	DP-15	Zhang, Y.	EB-07
*Yellen, B.	EC-06	Zhang, Y.	FB-06
Yelon, A.	CB-06	Zhang, Y.	FB-08
Yen, B.	GE-06	Zhang, Y.	FD-05
Yen, J-Y.	HB-10	Zhang, Y.	HC-10
Yi, J-Y.	FT-01	*Zhang, Z.	AC-06
Yoh, K.	CD-06	Zhang, Z.	CS-16
Yokoshima, T.	CE-01	Zhang, Z.	DE-05
		Zhang, Z.	DQ-11

Zhang, Z.	FT-06
Zhang, Z.	FT-10
Zhao, D.	GQ-13
Zhao, H.	CT-07
Zhao, S.	DP-05
Zhao, S.	ES-03
Zhao, Y.	ET-08
Zhao, Y.	FD-08
Zhao, Y.	FQ-10
Zhou, C.	AD-01
Zheng, D.	CS-16
Zheng, Y.	DD-06
Zheng, Y.	ED-10
Zhilichev, Y.	CQ-06
Zhilichev, Y.	FB-05
Zhong, J.	EA-11
Zhou, H.	DR-07
Zhou, H.	FA-11
*Zhou, H.	FE-01
Zhou, J.	AB-02
Zhou, L.	AB-06
Zhou, S.	AD-01
Zhou, T.	ET-08
Zhou, T.	FQ-10
Zhou, Y.	DD-02
Zhu, J.	EA-11
Zhu, J.	EP-03
Zhu, J-G.	DD-02
Zhu, J-G.	ED-07
Zhu, J-G.	FE-07
*Zhu, T.	AC-06
Zhu, W.	EP-10
Zhu, W.	GR-07
*Zhu, X.	DC-03
Zhu, X.	ED-07
Zhu, X.	GC-01
Zhu, Z.	ER-04
Zhu, Z.	GQ-03
Zhukov, A.	FS-12
Zhukova, V.	FS-12
Zhuo, Y.	GS-11
Zilberman, P.	CD-03
Zivieri, R.	GC-09
Zolla, H.	DD-09
Zou, D.	ED-05
Zou, J.	FB-02
Zou, J.	GA-02
Zou, J.	GA-02
Zou, P.	EP-01
Zou, Y.	FE-09
Zucca, M.	CP-09
Zuo, X.	HC-04
Zuo, X.	HD-07
Zuzek Rozman, K.	FB-11

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