

IEEE International Magnetism Conference

Dresden, Germany

May 4-8, 2014



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Call for Papers

Dear Colleagues,

It is our great honour to invite you to the IEEE International Magnetism Conference, INTERMAG Europe 2014, which will be held in Dresden, Germany, from May 4th to May 11th, 2014.

INTERMAG as the premier conference on all aspects of applied magnetism provides a range of oral and poster presentations, invited talks and symposia, a tutorial session, and exhibits reviewing the latest developments in magnetism ranging from fundamental magnetism, to advances in magnetic recording, and to the emerging applications of magnetism to energy and power technologies and biomagnetism. All members of the international scientific communities interested in new developments in magnetism and associated technologies are invited to attend and submit their latest findings to INTERMAG 2014. Selected papers from the conference will be published in the IEEE Transactions on Magnetism.

We would like to cordially invite you to attend the conference, actively participate in its technical sessions, and contribute to the continued success of this conference series. Up-to date information on all aspects of the conference can be found on the conference web page www.intermagconference.com/2014/.

Dresden, the capital of Saxony, Germany, follows Amsterdam 2002 and Madrid 2008 as the site of the INTERMAG Europe Conference. It is well known world-wide for its fascinating architectural and cultural attractions as well as for its delightful surroundings. Together with a dynamic economic growth and a unique concentration of scientific institutions this makes the city one of the most attractive places in Germany. The International Congress Center Dresden, established in 2004, is located directly at the river Elbe within walking distance to the historic city center. In the adjacent Maritim and many other hotels in the vicinity of the Congress Center room blocks at special Intermag rates are available for conference attendees. For the many things to see and to do in and around Dresden, please visit the official webpage www.dresden.de.

On behalf of the Management Committee of INTERMAG 2014, we look forward to seeing you in Dresden and to an exciting and enjoyable conference.

Ludwig Schultz

Michael E. McHenry

Intermag 2014 General Chairs



Conference Topics

1. Spin electronics & applications (non-recording)

- a. GMR of multilayers, magnetic contacts and constrictions
- b. Magnetic tunneling junctions
- c. Spin transfer torque
- d. Magnetoresistive and half-metallic materials
- e. Complex oxides
- f. Multiferroic materials
- g. Magnetic semiconductors
- h. Transport theory and spin injection
- i. MRAM, magnetic logic and devices
- j. Organic and carbon-based spin transport
- k. Spin-orbitronics (spin-pumping, spin Hall, spin Seebeck)

2. Magnetic recording

- a. Recording media
- b. Patterned media
- c. Recording heads and materials (GMR, spin-valves, MTJ, inductive heads etc.)
- d. Recording physics, modeling, theory and testing
- e. Head-disk interface and tribology
- f. Recording systems, coding, servo, actuators and channels
- g. Energy assisted recording
- h. Magneto-optic, hybrid and novel recording

3. Life sciences & applications

- a. Bio- and chemical magnetism
- b. Biomedical diagnostics and imaging
- c. Novel biomedical therapies and nanomedicine
- d. Measurement techniques and instrumentation

4. Sensors, MEMS, RF materials & devices

- a. Magnetic sensors (non-recording) and MEMS
- b. Magnetoimpedance and high frequency materials
- c. Magnetodynamics and ferromagnetic resonance
- d. Thin film inductors
- e. Microwave and millimeter wave materials and devices

5. Motors, generators, transformers & power devices

- a. Electromagnetic compatibility
- b. Transformers and inductors
- c. Motors, generators and actuators
- d. Power and control magnetism
- e. Shielding, levitation and propulsion

6. Magnetic thin films & nanostructures

- a. Ultra-thin films and surface effects
- b. Multilayer films and superlattices
- c. Patterned films and elements (non-recording)
- d. Magnetic nanowires, clusters and nanoparticles
- e. Exchange bias

7. Functional magnetic materials & non-recording applications

- a. Magneto-optic materials and devices
- b. Magneto-elastic materials and devices
- c. Magneto-caloric materials and devices
- d. Molecular and novel magnetic materials
- e. Magnetic fluids and separation

8. Soft magnetic materials

- a. Crystalline, nanocrystalline and amorphous materials
- b. Ferrites, garnets and other materials
- c. Magneto-dielectric materials or meta-materials

9. Permanent magnet materials

- a. Intermetallic and other hard magnets
- b. Nanostructured and composite hard magnetic materials
- c. Rare earth transition metal borides

10. Modeling & computational magnetism

- a. Ab-initio and first principles calculations
- b. Micromagnetics and multiscale modeling
- c. Hysteresis modeling

11. Fundamental properties & interdisciplinary topics

- a. Fundamental properties with relevance to applications
- b. Superconductivity
- c. Emerging topics

12. Microscopy, imaging & characterization

- a. Magnetic and structural measurements and instrumentation
- b. Magnetic microscopy and imaging
- c. Magnetization dynamics
- d. Synchrotron studies
- e. Processing and characterization of materials in high magnetic fields

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Call for Proposals for Invited Presentations and Symposia

One of the most important aspects of any InterMag Conference are the Invited Presentations and Symposia. We are soliciting proposals from the magnetism community at large; please submit your proposals online at www.intermagconference.com/2014. The deadline for proposal submission is November 17, 2013.

Digest Submission

Electronic digest submission will open on November 25, 2013. The deadline for digest submission is January 8, 2014 and will be strictly observed. All digests must be submitted online at the conference webpage www.intermagconference.com/2014. Digests sent via e-mail or regular mail will not be processed or acknowledged. Digests should be in the form of a two page summary. More details about the format are posted on the conference web site. Authors will be informed of the status of their submission via e-mail on February 3, 2014.

Presentation

Contributed papers accepted for the conference will be presented either orally or by poster. Authors are requested to indicate their preference for giving an oral or poster presentation on the electronic submission form. The Program Committee will make the final decision on the assignment of papers to sessions and the presentation format for each session. Authors will be notified of their session type via the e-mail of acceptance.

Contributed oral presentations will be in the conventional format of a 12-minute talk by a registered author using an LCD projector, followed by a 3-minute discussion period. Authors are expected to bring their presentation on their own laptop computers along with a backup copy on a USB drive.

Poster presentations will consist of well-prepared visual materials about the work posted on a designated board, with the author available to present details and answer questions during the selected poster sessions. Simply posting a hard copy of the paper is inappropriate and will be marked as a NO SHOW. For further instructions including poster board size please check the conference web page www.intermagconference.com/2014.

Publication

If your digest is accepted for presentation at InterMag, you may contribute a paper for publication in the special InterMag issue of IEEE Transactions on Magnetism. The maximum paper length is 4 journal pages for contributed papers and 7 journal pages for invited papers. The deadline for manuscript submission is March 7, 2014. Post-deadline manuscripts will not be accepted or forwarded for review. The review standards will mirror those used for regular articles to be published in IEEE Transactions on Magnetism. Note that participation in the conference does not guarantee that a paper will be accepted for publication. Additionally, at least one of the paper's co-authors must present the paper at the conference in order for it to be considered for publication. Because of the time constraints, there will be no second round of reviews for papers that are rejected at the initial stage. All the papers will have two peer reviews, and the final decision on the publication of the manuscripts will be made by the InterMag editors.

Student Best Presentation Award

A competition will be held during the conference for the IEEE Magnetism Society Student Best Presentation Award, which recognizes and encourages excellence in graduate studies of magnetism. Full-time graduate students who will be the presenting author of an oral contribution may apply. Note that supplementary information is required to describe the motivation for the research, significance of the research results and the applicant's contribution to the work being presented. A brief letter of support from the student's advisor is also required, and should be submitted along with the digest. Up to five finalists will be selected based on accepted digests and the supplementary information. Preference will be given to students who and whose advisors are current members of the IEEE Magnetism Society. Only the finalists will receive notification from the selection committee. The winner will be selected at the conference by the Student Best Presentation Award subcommittee, and announced soon after the conference. The award consists of a prize of \$1500 and certificate for the winner, and a \$250 prize and certificate for the remaining finalists.

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Registration

The advance online registration at reduced rates will be available at www.intermagconference.com/2014 until April 02, 2014. Online registrations after April 02, 2014 and on-site registrations are accepted only at the higher rates. Please note that the conference registration fees do not include any meals during the conference week.

Hotel reservation

Our local partner, CMD Congress Management GmbH Dresden, has reserved rooms in the conference Hotel Maritim as well as various other hotels for the INTERMAG 2014 participants. Special conference rates are available in every price range including good value accommodation for students. A list of selected hotels as well as the link to the online booking can be found at the conference web page. The online hotel booking starts together with the online registration immediately after the acceptance notices are sent out. The deadline for hotel reservation is April 23, 2014. We recommend to book well enough in advance, so that your desired hotel is still available.

Travel Information

Lufthansa as the official airline of InterMag 2014 provides special offers at discount rates for conference attendees. For further information please check the conference web site.

Student Travel

The IEEE Magnetics Society will award travel grants of up to \$1,000 each to a limited number of students in the areas of basic and applied magnetism. These grants are intended to partially offset travel costs for their participation in INTERMAG 2014. Support is for current graduate students only. Postdoctoral fellows, undergraduates or non-students are not eligible. The student's advisor must be a member of the IEEE Magnetics Society. Preference will be given to those applicants who are student members of the Magnetics Society, nearing completion of their graduate studies and presenting conference papers. Students who have previously received travel support from the Magnetics Society for any other conference are not eligible. The application web site including application forms and

instructions will open soon after the announcement of accepted abstracts. The deadline for submitting applications and letters of endorsement is March 7, 2014. Incomplete or late applications and endorsement letters will not be considered. Applicants will be notified of the committee's decision about a week after.

Exhibit

Exhibits of related services, equipment, materials, software, technical journals and books will be held as a part of the INTERMAG 2014 Conference. Individuals and organizations interested in purchasing booth space should contact the exhibit's coordinators at info@cmd-congress.de.

Visa

Please check your visa requirements and apply for a visa as early as possible. For detailed information see http://www.auswaertiges-amt.de/EN/EinreiseUndAufenthalt/Visabestimmungen_node.html. For special assistance, e.g. invitation letters, please contact the conference management at info@cmd-congress.de. Please note that invitation letters can only be issued to authors or registered attendees of the conference.

Important Dates

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| Call for Papers: | October 2013 |
| Call for Invited Presentations and Symposia Nominations: | October 2013 |
| Deadline for Invited and Symposia Nominations: | November 17, 2013 |
| Digest Submission opens: | November 25, 2013 |
| Digest Submission Deadline: | January 8, 2014 |
| Student Best Presentation Award Application Deadline: | January 8, 2014 |
| Acceptance/Rejection Notices: | February 3, 2014 |
| Manuscript Submission opens: | February 10, 2014 |
| Manuscript Submission Deadline: | March 7, 2014 |
| Student Travel Award Deadline: | March 7, 2014 |
| Advance Registration Deadline: | April 2, 2014 |
| Hotel Reservation Deadline: | April 23, 2014 |
| Conference: | May 4-8, 2014 |
| Transactions on Magnetics Publication: | November 2014 |