

IEEE International Magnetism Conference

Dublin, Ireland

24th – 28th April 2017



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CONFERENCE MANAGEMENT

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Call for Papers

Dear Colleagues,

It is my great honour to invite you to the IEEE International Magnetism Conference, INTERMAG Europe 2017, which will be held in Dublin, Ireland, from 24th - 28th April 2017.

INTERMAG is the premier international conference on all aspects of applied magnetism and 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 to applied aspects, including advances in magnetic recording, spintronics, energy and power technologies and the emerging field of bio-magnetism. All members of the international scientific community interested in new developments in magnetism and associated technologies are invited to attend and submit their latest findings to INTERMAG 2017. Selected papers from the conference will be published in the IEEE Transactions on Magnetism.

On behalf of the Management Committee of INTERMAG 2017, I 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 <http://intermag2017.com>.

Dublin follows Dresden (2014) and Madrid (2008) in hosting the INTERMAG Europe Conference. Dublin is a vibrant city, and serves as an excellent gateway to the island of Ireland. The centrally located Convention Centre Dublin is walking distance from historic Trinity College Dublin, many hotels, restaurants and lively bars. For the many things to see and to do in and around Dublin, please visit www.dublintown.ie.

I look forward to seeing you in Dublin and to an exciting and enjoyable conference.

Nora Dempsey

INTERMAG 2017 General Chair





Conference Topics

- 1. Magneto-electronics: fundamentals and applications (non-recording)**
 - a. Giant magnetoresistance
 - b. Tunneling magnetoresistance
 - c. Spin transfer torque
 - d. Magnetoresistive and half-metallic materials
 - e. Complex oxides
 - f. Multiferroic materials
 - g. Voltage-controlled magnetic anisotropy and switching
 - h. Magnetic semiconductors
 - i. Spin Injection and transport: experiment
 - j. Spin Injection and transport: theory
 - k. Organic and carbon-based spin transport
 - l. Antiferromagnetic spintronics
 - m. Spin-orbitronics (spin-pumping, spin Hall, spin Seebeck)
 - n. MRAM, magnetic logic and devices
 - o. Skyrmions, domains, and domain wall devices
- 2. Magnetic recording**
 - a. Recording media
 - b. Patterned media
 - c. Recording heads and materials (GMR, spin-valves, MTJ, inductive heads etc.)
 - d. Recording physics, modelling, theory, 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 and applications**
 - a. Bio- and chemical magnetism
 - b. Biomedical diagnostics and imaging
 - c. Biomedical therapies and nanomedicine
- 4. Sensors, MEMS, RF materials and devices**
 - a. Magnetic field sensors (non-recording) and MEMS
 - b. Thin film inductors
 - c. Magnetoimpedance, high frequency materials
 - d. Magnetodynamics, ferromagnetic resonance
 - e. Microwave and millimeter wave materials and devices
- 5. Magnetization dynamics**
 - a. Magnetization dynamics and damping
 - b. Magnonics
 - c. Domain wall, vortex, and skyrmion dynamics
 - d. Ultrafast and all-optical switching
- 6. Motors, generators, transformer, power devices**
 - a. Electromagnetic compatibility
 - b. Transformers and inductors
 - c. Motors, generators and actuators
 - d. Power and control magnetics
 - e. Shielding, levitation and propulsion
- 7. Structured materials**
 - a. Ultra-thin films and surface effects
 - b. Multilayer films and superlattices
 - c. Patterned films and elements (non-recording)
 - d. Magnetic clusters, nanoparticles and nanowires
 - e. 3D magnetic structures
 - f. Exchange bias
- 8. Functional magnetic materials and non-recording applications**
 - a. Magneto-optic materials and devices
 - b. Magneto-elastic materials and devices
 - c. Magneto-caloric materials and devices
 - d. Molecular, low-dimensional, and novel magnetic materials
 - e. Magnetic fluids and separation
- 9. Soft magnetic materials**
 - a. Crystalline, nanocrystalline and amorphous materials
 - b. Ferrites, garnets and other materials
 - c. Magneto-dielectric materials or meta-materials
- 10. Permanent magnet materials**
 - a. Intermetallic and other hard magnets
 - b. Nanostructured and composite hard magnetic materials
 - c. Rare earth transition metal borides
- 11. Modeling and computational magnetism**
 - a. Ab-initio and first principles calculations
 - b. Micromagnetics and multiscale modeling
 - c. Hysteresis modelling
- 12. Fundamental properties and interdisciplinary topics**
 - a. Fundamental properties with relevance to applications
 - b. Superconductivity
 - c. Frustrated magnets
 - d. Artificial spin ice systems
 - e. Emerging topics
- 13. Microscopy, imaging and characterization**
 - a. Magnetic & structural measurements and instrumentation
 - b. Magnetic microscopy and imaging
 - c. Processing and characterization of materials in high magnetic

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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 <http://intermag2017.com>. The deadline for proposal submission is 14th November 2016.

Digest Submission

Electronic digest submission will open on 16th November 2016. The deadline for digest submission is 6th January 2017 and will be strictly observed. All digests must be submitted online at the conference webpage <http://intermag2017.com>. 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 30th January 2017.

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.

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 **minimum paper length** is 4 journal pages for contributed papers and 7 journal pages for invited papers. The deadline for manuscript submission is 10th March 2017. 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.

Best Student Oral Presentation Award

A competition will be held during the conference for the IEEE Magnetism Society Best Student Oral 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 Best Student Oral Presentation Award subcommittee, and announced during 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 until 27th March 2017. Online registrations after 27th March 2017 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 management team at Conference Partners has provisionally reserved rooms at various hotels close to the conference centre for INTERMAG 2017 participants. Special conference rates are available on a first come, first served basis. A list of selected hotels as well as the link to the online booking can be found at the conference web page. We recommend to book well enough in advance, so that your desired hotel is still available.

Travel Information

Dublin is easily accessible from the UK, Continental Europe, the USA and Asia. For more information please visit www.dublinairport.com and the conference web site.

Student Travel

Travel grants of up to \$1,000 each will be awarded to a limited number of students in the areas of basic and applied magnetism. These grants, which will be sponsored by the IEEE Magnetism Society and Science Foundation Ireland, are intended to partially offset travel and local costs related to participation in INTERMAG 2017. Support is for current graduate students only. Postdoctoral fellows, undergraduates or non-students are not eligible. To be eligible for the IEEE Magnetism Society award, the student's advisor must be a member of the IEEE Magnetism Society. Preference for these grants will be given to those applicants who are student members of the Magnetism Society, nearing completion of their graduate studies and presenting conference papers. Students who have previously received travel support from the Magnetism Society for any other conference are not eligible. The application web site including application forms and instructions will open 31st January 2017. The deadline for submitting applications and letters of endorsement is 24th February 2017. 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 2017 Conference. Individuals and organizations interested in purchasing booth space should contact the exhibit's coordinator conor.mckenna@conferencepartners.ie.

Visa

Please follow the link below to find out if you need a visa or not: www.inis.gov.ie/en/INIS/Pages/Countries whose nationals are visa required. Visa application forms for Ireland, as well as other helpful information regarding Schengen visas can be found here: www.inis.gov.ie/en/INIS/Pages/Apply for a visa. For special assistance, e.g. invitation letters, please contact intermag2017@conferencepartners.com. Please note that invitation letters can only be issued to authors or registered attendees of the conference.

Important Dates

Call for Papers:	October 2016
Call for Invited Presentations and Symposia Nominations:	October 2016
Deadline for Invited and Symposia Nominations:	14 th November 2016
Digest Submission opens:	16 th November 2016
Digest Submission Deadline:	6 th January 2017
Best Student Oral Presentation Award Application Deadline:	6 th January 2017
Acceptance/Rejection Notices:	30 th January 2017
Manuscript Submission opens:	13 th February 2017
Student Travel Award Application Deadline:	24 th February 2017
Manuscript Submission Deadline:	10 th March 2017
Conference:	24 th - 28 th April 2017
Transactions on Magnetism Publication:	November 2017