



Sacramento, California, USA

May 4-8, 2009



**IEEE**  
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of Engineering the Future

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### Message from the Chair:

It is a pleasure for me to invite you to attend the International Magnetics Conference, Intermag 2009, which will be held from Monday May 4, until Friday May 8, 2009, at the Convention Center in Sacramento California.

Intermag is the premier conference on applied magnetics which allows scientists and engineers from all over the world to meet and discuss novel developments in magnetics, magnetic materials and associated technologies. Intermag 2009 is planned to provide a range of oral and poster presentations, invited talks and symposia, a tutorial session, and exhibitions reviewing the latest developments in magnetics. I would like you to attend the conference and actively contribute to one or more of its technical sessions. The deadline for digest submissions is January 5, 2009.

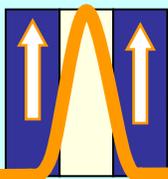
Sacramento, the conference venue, is the Capital of California: a lively and vibrant city. Participants will find in downtown Sacramento a wide choice of restaurants and shops within walking distance. A short drive will also allow our attendees to reach the San Francisco area, the fabulous hillside vineyards, or the lakes and snowcapped mountains of the Sierra Nevada.

On behalf of the Management Committee of Intermag 2009, I look forward to seeing you in Sacramento, CA, to help contribute to an exciting scientific and technical program.

Sincerely,

Massimo Pasquale  
Intermag 2009 General Chairman

<http://www.intermagconference.com/intermag2009>



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## LOCATION

The Intermag 2009 Conference will be held at the Convention Center in Sacramento, California, USA. Complete information on making hotel room reservations within the conference room blocks at a variety of hotels within walking distance of the Sacramento Convention Center will be available in January 2009 on the Intermag Conference web site.

## DIGEST SUBMISSION

Digest submission has opened on **December 1, 2008**. The deadline for digest submission is **January 5, 2009**. This deadline will be strictly observed. All digests must be submitted only via the web at: <http://intermag.abstractcentral.com>. Digests sent via e-mail, fax or regular mail will not be processed nor acknowledged. Digests should be in the form of a two (2) page summary. More details about the format are posted on the conference submission web site at: <http://intermag.abstractcentral.com>. Digests acceptances will be announced via e-mail. Authors will be informed of the status of their submission by February 6, 2009.

## REGISTRATION

Advance registration will open on **February 2, 2009**. Registration fees will be significantly lower for IEEE members. Prospective attendees are encouraged to join IEEE and the Magnetics Society at: <http://www.ieee.org/web/membership/join/join.html>.

## PUBLICATIONS

If your digest is accepted for presentation at Intermag, you may contribute a paper for publication in the special October 2009 Intermag issue of IEEE Transactions on Magnetics. The maximum paper length is FOUR (4) journal pages for contributed papers and SEVEN (7) journal pages for invited papers. Note that the number of pages allowed has been increased with regard to previous Intermag Conferences. The deadline for manuscript submission is **March 6, 2009**. Post-deadline manuscripts will not be accepted nor forwarded for review.

The review standards will mirror those used for regular articles in IEEE Transactions on Magnetics. Participation in the conference does not guarantee that a paper will be accepted for publication. Additionally, one of the paper coauthors 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 initially rejected. In addition to two peer reviews per paper, the manuscripts will be ranked by the Intermag editors. In order not to exceed the Intermag page budget, some papers with two mildly positive reviews may be rejected. It is estimated that only two thirds of the submitted papers will be accepted for publication.

All manuscripts will be submitted via the IEEE web submission system, Manuscript Central. Instructions for submission and accepted formats for the journal as well as a link to Manuscript Central is available at <http://intermag.abstractcentral.com>. All papers being published in the special issue of the IEEE Transactions on Magnetics must be submitted this way. No hard paper manuscripts will be accepted. Reviewing and revisions will all be handled through the online system.

## PRESENTATIONS

Contributed papers accepted for the Conference will be presented either orally or as posters. Oral presentations will be in the conventional format of a twelve-minute talk by a registered author using a LCD projector, followed by a three-minute discussion period. Presenting authors should bring their own PC, and are also advised to bring a USB flash memory as backup. For poster presentations, clear descriptive visual material should be arranged within the designated board size. The author must be present to provide details and answer questions during the poster session.

Authors are requested to indicate their preference for oral or poster presentations in the field provided in the electronic digest. The Program Committee will make the final decision on the assignment of papers to the sessions and on the presentation format for each session. In the e-mail notice of acceptance, authors will be notified of the type of session for their presentation. Detailed rules and instructions for an effective presentation will be available on the conference web site.

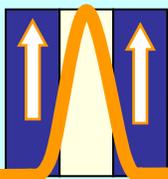
## STUDENT TRAVEL GRANTS

The IEEE Magnetic Society will award travel grants of up to \$1,250 each to a limited number of students working in basic and applied magnetism. These grants are intended to partially offset travel costs to attend Intermag 2009. Support is for current graduate students only, including Ph.D. candidates and those students in Masters only programs. Postdoctoral fellows, undergraduates or non-students are not eligible. Preference will be given to students who are student members of the Magnetics Society, who are nearing completion of their graduate studies and presenting conference papers. The student's advisor must be member of the Magnetics Society. Students who have previously received travel support from the Magnetics Society are not eligible. Shortly after the conference grant recipients must submit a short account of their experience for possible inclusion in the Magnetics Society Newsletter. To apply, forms and instructions will be available at: [www.intermagconference.com/intermag2009](http://www.intermagconference.com/intermag2009). The student's advisor must write a brief letter of endorsement for the student. Another letter of endorsement from a full Member of the Magnetics Society is also required. Applications and all letters of endorsement must be submitted before March 13, 2009. Inquiries should be sent to the Student Travel Grant Co-Coordinator: M. J. Carey, Hitachi GST, San Jose, CA ([matthew.carey@hitachigst.com](mailto:matthew.carey@hitachigst.com)).

Visit the Magnetics Society web site at: [www.ieeemagnetics.org](http://www.ieeemagnetics.org).

## STUDENT BEST PRESENTATION AWARD

The Student Best Presentation Award is being given by the Magnetics Society to encourage the presentation of papers in the conference by students. Graduate students who are full time students at the time of the conference who are the presenting authors of either poster or oral contributions can apply. Preference will be given to students who are within one year of graduation and who are members of the Magnetics Society or whose advisors are members. Students should apply at the same time that abstracts are submitted by checking the box on the application page on the abstract submission web site, and include applicable IEEE membership numbers. Also a letter of support from the student's advisor is required, and should accompany the submitted abstract. The choice of finalists will be announced soon after the acceptance of abstracts. The winner will be selected at the conference by the



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Student Best Presentation subcommittee, and announced soon after the close of the conference. The award consists of a fellowship of \$1500 and certificate for the winner, and \$250 and certificate for the remaining finalists.

## VISA REQUIREMENTS

The US has updated its visa policies to increase security, so it may take you longer to apply for and receive your visa than it has in the past. For details that apply specifically to your country please go to your nearest US Consulate or Embassy. Review your visa status now to determine if you need a US visa or visa renewal. Contact your nearest embassy or consulate to find out how to schedule an interview appointment, pay fees, and other vital instructions. International visitors to the U.S. from Visa Waiver Program countries may now apply for travel authorization online by going to [http://cbp.gov/xp/cgov/travel/id\\_visa/esta/](http://cbp.gov/xp/cgov/travel/id_visa/esta/). The tool is easy to use and free of charge.

If you need a personal letter of invitation to attend the Conference, contact the Conference Coordinators by Email at: [2009intermag@courtesyassoc.com](mailto:2009intermag@courtesyassoc.com). Be sure to provide your complete mailing address so that a signed letter of invitation can then be mailed to you via standard mail service. Only an original copy (not faxed or Email version) may be accepted with your visa application. Only registered participants, not family or unpaid guests, will receive a letter of invitation. NOTE: The Conference CANNOT contact or intervene with any U.S. Embassy or Consulate office abroad on your behalf.

## PROGRAM CATEGORIES

### 1. Magnetic recording

- a. Recording media
- b. Patterned media
- c. Inductive recording heads and materials
- d. MR-based sensors (including GMR, spin-valves, MTJ, CPP, etc.)
- e. Recording physics, models & theory
- f. Head-media interface, tribology
- g. Recording systems, coding, servo & channels
- h. Energy assisted recording
- i. Magneto-optic, hybrid and novel recording

### 2. Spin electronics & applications (non-recording)

- a. GMR of multilayers, magnetic contacts & constrictions
- b. Magnetic tunnel junctions
- c. Spin transfer torque phenomena
- e. Magnetoresistive oxides & semi-metallic materials
- f. Magnetic semiconductors
- g. Transport theory and spin injection
- h. MRAM
- i. Domain wall memory and logic
- j. Magneto-couplers, logic & other magneto-electronic devices
- k. Spin torque oscillators

### 3. Soft magnetic materials & applications

- a. Crystalline, nanocrystalline & amorphous materials
- b. Ferrites, magnetic oxides & other materials
- c. Magneto-dielectric materials or meta-materials
- d. Applications

### 4. Permanent magnet materials & applications

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

d. Applications

### 5. Magnetic thin films & nanostructures

- a. Ultra-thin films & surface effects
- b. Multilayer films and superlattices
- c. Patterned films & elements
- d. Magnetic nanowires, clusters & nanoparticles
- e. Exchange bias
- f. Fast switching of films and nanostructures

### 6. Other magnetic materials & non-recording applications

- a. Microwave materials & devices
- b. Magneto-optic materials & devices
- c. Magneto-elastic materials & devices
- d. Magneto-caloric materials and devices
- e. Molecular & novel magnetic materials

### 7. Modeling and computational magnetism

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

### 8. Characterization & imaging

- a. Magnetic and structural measurements & instrumentation
- b. Magnetic microscopy and imaging

### 9. Sensor, high frequency & power devices

- a. Magnetic sensors (other than for recording)
- b. Microwave and millimeter wave devices
- c. Magnetoimpedance & high frequency materials and properties
- d. Electromagnetic compatibility
- e. Transformers and inductors
- f. MEMS
- g. Motors and actuators
- h. Power and control magnetics
- i. Magnetic fluids and separation
- j. Shielding, levitation and propulsion
- k. Magnetodynamics and ferromagnetic resonance

### 10. Life sciences & applications

- a. Bio & chemical magnetism
- b. Measurement techniques and instrumentation
- c. Biomedical diagnostics and imaging
- d. Biomedical therapies
- e. Magnetic field effects

### 11. Physics & interdisciplinary topics

- a. Fundamental properties with relevance to applications
- b. Superconductivity
- c. Synchrotron radiation
- d. Miscellaneous

## IMPORTANT DATES

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|---------------------------------------|-------------------------|
| <b>Digest submission opens</b>        | <b>December 1, 2008</b> |
| <b>Digest submission closed</b>       | <b>January 5, 2009</b>  |
| <b>Advance registration opens</b>     | <b>February 2, 2009</b> |
| <b>Acceptance/rejection notices</b>   | <b>February 6, 2009</b> |
| <b>Manuscript submission deadline</b> | <b>March 6, 2009</b>    |
| <b>Hotel reservation deadline</b>     | <b>April 6, 2009</b>    |
| <b>Advance registration closes</b>    | <b>April 6, 2009</b>    |