FIRST CALL FOR PAPERS

Abstract Deadline: July 2, 2004

The 49th Annual Conference on Magnetism and Magnetic Materials will be held at The Adam’s Mark Jacksonville, in Jacksonville, Florida from Monday, November 8 through Thursday, November 11, 2004. Members of the international scientific and engineering communities interested in recent developments in magnetism and associated technologies are invited to attend the Conference and contribute to its technical sessions.

SCOPE OF THE CONFERENCE: This Conference will include all basic and applied science and technology related to the field of magnetism. The technical subject categories for the Conference are located on the back page.

ABSTRACT GUIDELINES: Because of the need to convey information effectively with colleagues as well as a continued increase in the number of submitted abstracts in recent years, authors should make an effort to present their work in the best possible light. To maximize your chances of acceptance, please strictly follow the guidelines and keep in mind the following abstract acceptance criteria used by the Program Committee:

- The research must be about magnetism, magnetic materials, or magnetism-related technology.

- The work must be original and significant. Abstracts that describe incremental advances over previously presented work will be rejected.

- The work must be substantially complete. Abstracts that do not specifically refer to new results or are largely conceptual will be rejected. Sufficient context and detail must be included to allow the program committee to readily make an assessment of the work.

- In the interest of allowing as many groups as possible to present their work, groups or individuals considering the submission of several related abstracts should, whenever possible, combine them into a single submission.
• The abstract must be in understandable English. If necessary, have a native English speaker edit your abstract before submission.

**ABSTRACT SUBMISSION REQUIREMENTS:**

• Abstracts must be submitted prior to the **July 2, 2004, deadline**. This deadline will be strictly observed.

• The presenting author must be a paid registrant. The Conference does not provide support for any contributed papers.

• All abstracts must be submitted via the WEB submission system **ONLY**. Abstracts sent via e-mail, fax, or regular mail, will not be processed or acknowledged.

• Submit all abstracts electronically, using the link found at the MMM Home Page (http://www.magnetism.org). The link will be available starting **June 14, 2004**.

• Abstracts should be **300 words** or less, and is limited by the submission system. Two figures/tables are permitted. However, note that this significantly reduces the text permitted. Make your determination about whether you prefer text or figures and work within the limit. Titles, authors, addresses, and references will not count in the 300 word limit.

• Read and follow submission procedures, which will be available at each step of the process. If you have questions about this procedure, please contact the AIP Coordinator at the e-mail address: magnet@aip.org or use the help icon on the web page.

• Follow instructions on the allowed file formats for the abstract submission. Only formats described in the instructions will be accepted. There are many to choose from.

• Submit your abstract only once.

• **Draft mode** will be available until the deadline date. This permits authors to continue editing at a later date/time. If you change your mind about the abstract, you may withdraw it and submit a new one. All information about this process will be available online. The Draft mode will be eliminated, along with anything left in it, on July 2, 2004.

• **Be sure to provide a clear and correct e-mail address for the corresponding author.** Provide the information requested on the electronic form. Use upper and lower case characters. (DO NOT simply use all upper case). This will be used to notify you of acceptance and the location of informational materials. Acronyms of institution names are acceptable. Be sure to type your first and last names in the proper box. If your name is transposed we will be unable to locate you.

• The web submission system will automatically produce your abstract in the proper format for publication in the Abstracts Book. You may cut and paste your abstract (without
formatting or Tex characters) into the space provided at the website. Figures need to be uploaded. The version you view and edit on the screen is a facsimile.

- **Acknowledgment** of your submission will be via e-mail. If you do not receive this, your abstract is NOT submitted.

- Following construction of the Program, the abstracts will appear online at the Conference website in a fully searchable format. If, for some reason, you do not wish your abstract to appear online, you must check the box provided on the submission form. If this is done, only the title, authors and affiliations will appear.

- Abstract acceptance will be announced via e-mail. Authors will be advised as to the status of their submission by early August 2004.

**PROGRAM**: The program will consist of invited and contributed papers falling broadly within the scope of the categories listed at the end of this Call for Papers. Some of the invited papers will be tutorial in nature, while others will review recent work in specialized fields. The Program Committee is chaired by Robert McMichael and Mark van Schilfgaarde.

**PRESENTATION OF CONTRIBUTED PAPERS**: Contributed papers accepted for the Conference will be presented either orally or by poster. Oral presentations will be in the conventional format of a 10-minute talk by the registered author using an LCD projector (with backup transparencies in case of a technical difficulty), followed by a 2-minute discussion period. 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 session times. Simply posting a copy of the paper is NOT appropriate and will be treated as a NO SHOW. Authors are requested to indicate their preference for oral or poster presentations in the spot provided on the electronic form. The Program Committee will make the final decision on the assignment of papers to sessions and 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. They will also receive a URL for detailed rules and instructions for effective presentation.

**PUBLICATION**: The Proceedings of the Conference will be published in May 2005, as a special issue of *Journal of Applied Physics*. If your abstract is accepted for presentation at the Conference you may submit an article for the Conference Proceedings. The maximum paper length is six journal pages for invited papers and three journal pages for contributed papers. **All manuscripts must be received by August 30, 2004.** This deadline will be strictly observed. Post-deadline manuscripts will not be accepted and not forwarded for review. Authors are reminded that review standards will mirror those used for regular articles submitted to *Journal of Applied Physics*, and that, because of time constraints, a second review may not be possible for resubmitted papers that were originally rejected. Papers must be presented at the Conference by an author registered at the Conference in order to be published in the Proceedings.

All manuscripts assigned to the *Journal of Applied Physics* will be submitted to the new AIP web submission system, PeerX-Press (PXP). Instructions for submission and accepted formats for the journal will be available at the submission site (http://mmm.peerx-press.org/). A link to the site
will be available on the Conference website. The site will be available for submission beginning August 7, 2004. All papers to appear in the proceedings MUST be submitted in this way. No paper manuscripts will be accepted. Reviewing and revisions will all be handled through these online systems.

EXHIBITS: An exhibition of services, equipment, materials, software, and books will be held as a part of the 2004 MMM Conference. Both individuals and organizations who are interested in purchasing booth space should contact the Exhibits Coordinator, Wendy Acevedo, at Courtesy Associates: E-mail: MMMConf@courtesyassoc.com; Fax: 202-973-8722. The Exhibitor Prospectus will be available in print and on the web site in the Spring.

HOTEL: The Adam’s Mark Jacksonville is the newest premier hotel in Northeast Florida. Located downtown on the St. Johns Riverfront, the hotel is adjacent to the Jacksonville Landing entertainment and shopping area and only 18 miles from the airport. More details, conference rates and a Hotel Room Reservation Form will all be available on the MMM Conference web site by this summer. Room reservations can be made beginning in August.

REGISTRATION: Advance Registration will be available by August 1, 2004. Use the form and instructions that will be posted on the MMM Homepage. Advance Registration via the web is the most convenient way to register and is highly recommended.

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. Participants requiring visas must initiate the application process well in advance of their departure date. If you need a personal letter of invitation to attend the conference, contact 2004 MMM c/o Courtesy Associates, 2025 M Street, NW, Suite 800, Washington, DC, 20036; E-mail: MMMConf@courtesyassoc.com; Fax: 202-973-8722. 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. A copy of the letter of invitation sent by email will not qualify for your visa application. NOTE: The MMM Conference CANNOT contact or intervene with any U.S. Embassy or Consulate office abroad on your behalf.

FURTHER INFORMATION: To receive additional information about 2004 MMM, to be added to the Conference Mailing List, or to update your mailing address, please contact Janis Bennett, E-mail: magnet@aip.org; Telephone: 516-576-2403; Fax: 516-576-2223. The latest information on 2002 MMM can be found on the World Wide Web at the MMM Conference homepage:

http://www.magnetism.org

BEST STUDENT PRESENTATION AWARD: This year, there is again a competition for the best student presentation at the 49th MMM Conference in Jacksonville to recognize and to encourage excellence in graduate studies in the field of magnetism.

Best 9th Joint MMM/Intermag Student Presentation Winner

Lisha Wang
for the presentation:

"Effects of Atomic Ordering on Curie Temperature of FePd and FePt L10 Type Alloys."

CONGRATULATIONS!

Eligibility: The nominee must be a full time graduate student expecting to graduate within one year of the 49th MMM Conf. The student's area of research may either be theoretical or experimental in any of the general technical and scientific areas normally presented as part of the 49th MMM Conf. The student's regularly submitted abstract must have been accepted for presentation through the normal abstract review process by the 49th MMM Conf. Program Committee as either an oral or poster presentation.

Nature of Award: This award consists of a one-year fellowship of $1000 for the winner and a one-year fellowship of $250 to each of the remaining finalists. The names of all finalists competing for the award will be announced in the 49th MMM Conf. Abstract and Program Booklets. The name of the winner will be published in the Program Booklet of the 50th MMM Meeting.

Selection Process: Up to eight finalists will be selected by a Student Award sub-committee of the 49th MMM Conf. Program Committee. Selections will be made from extended-abstract applications, as described below, based on an overall assessment of the quality of each applicant's extended and regularly submitted abstracts. Notification to the finalists will be made by e-mail in early August 2004. The presentations, which must be made by the finalist, will be evaluated at the conference by the Student Award sub-committee and the winner will be announced shortly after the conclusion of 49th MMM Conf. The decision of the Student Award sub-committee is final.

APPLICATION PROCEDURE

1. Students must submit an abstract to the 49th MMM Conf. according to the standard submission guidelines and deadlines as outlined in the Call for Papers. Please DO NOT identify the abstract as part of the student award competition. The 49th MMM Conf. abstract deadline is July 2, 2004.

2. Students must also submit an extended abstract of a maximum of three pages of text, equations, and figures. The extended abstract submission deadline is July 14, 2004. The extended abstract will be used to select the finalists; and should expand upon the research, describe the applicant's contribution to the work, and show the significance of the work to the field. In addition, the extended abstract should include the abstract number of the regular abstract; the title; the authors, their affiliations, and addresses; any equations; and pertinent bibliography. The following guidelines should be followed:

   a. Minimum 1 inch margins on all sides of all pages.
b. Font size of at least 12 points for text; line spacing at least 1.17 times the font size.

c. Font size of at least 9 points (after reduction) on figures.

3. Extended abstracts MUST be submitted as e-mail attachments. FAX or mail submissions will not be considered. The e-mail containing the extended abstract must have a subject line that reads “EXTENDED ABSTRACT - <APPLICANTS NAME>”. Extended abstracts are due by Friday, July 14, 2004.

Submit extended abstracts to:

Dr. Robert McMichael
NIST

To: bobmc@nist.gov.

Subject: EXTENDED ABSTRACT - <APPLICANTS NAME>

STUDENT TRAVEL: The Conference will award travel grants of approximately $500 each to a limited number of students working in magnetism and magnetic materials. These awards are intended to partially offset travel costs to attend the 49th MMM Conf. in November 2004. Support is for current graduate students only, postdoctoral fellows or non-students are not eligible. Preference will be given to students who are nearing completion of their graduate studies and are presenting Conference papers. To apply, forms and instructions are available now at the MMM Website: www.magnetism.org, under the category “Student Travel”. The deadline for forms AND letters of endorsement is Sept. 1, 2004

TECHNICAL SUBJECT CATEGORIES

I. Fundamental Properties and Cooperative Phenomena
   A. Electronic Structure
   B. Itinerant Magnetism
   C. Critical Phenomena
   D. Spin Glasses and Frustration
   E. Spin Dynamics and Relaxation
   F. Magnetic Impurities, Kondo and Heavy Fermions
   G. 4f, 5f-and Strongly Correlated Systems
   H. Superconductivity
   I. Low Dimensional Systems

II. Magneto electronic Materials and Applications
   A. Magnetoresistive Oxides (CMR)
   B. Other Half-Metallics
   C. Anisotropic Magnetoresistance, Magnetoimpedance and Hall Effect
   D. Giant Magnetoresistance and Spin Valves
   E. Spin Transport Torques
   F. Magnetic Tunnel Junctions
   G. Magnetic Semiconductors
   H. Devices

III. Computational Magnetics and Imaging
   A. Numerical Methods
B. Micromagnetic Modeling
C. Hysteresis Modeling
D. Magnetic Microscopy and Imaging

**IV. Soft Magnetic Materials and Applications**
A. Ferrites, Garnets and other Microwave Materials
B. Crystaline Alloys
C. Amorphous/Nanocrystalline Materials
D. Domains
E. Recording Head Materials

**V. Hard Magnetic Materials and Applications**
A. Rare Earth-Transition Metal Borides
B. Intermetallic and Other Hard Magnetic Materials
C. Nanostructured Hard Magnetic Materials
D. Hard Magnet Processing and Applications

**VI. Structured Materials**
A. Ultra-Thin Films and Surface Effects
B. Multilayer Films and Superlattices
C. Nanoparticles and Particle Arrays
D. Patterned Films
E. Exchange Bias

**VII. Special Magnetic Materials**
A. Magneto-optic Materials
B. Magneto-elastic Materials
C. Magneto-caloric Materials
D. Molecular Magnets
E. New Magnetic Materials

**VIII. Magnetic Recording**
A. Particulate Media and ME tape
B. Thin Film and Patterned Media
C. Perpendicular Recording
D. Magnetoresistive Heads
E. Inductive Recording Heads
F. Magneto-Optic Recording
G. Recording Modeling, Systems and Theory
H. Head-Media Interface and Tribology
I. Magnetic Memory and Elements
J. Alternative Magnetic Storage
K. Magnetic Noise

**IX. Applications and Interdisciplinary Topics**
A. Microwave and Millimeter Wave Devices
B. Magnetic Sensors (not for recording)
C. Magnetic Fluids
D. Shielding, Levitation and Propulsion
E. Motor Design
F. Transformers and Inductors
G. Bio/Chemical Magnetism
H. Instrumentation and Measurement Techniques
I. Magnetic Separation
J. Power and Control Magnetics
K. New Applications