

# MAGNETICS SOCIETY NEWSLETTER

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RICHARD DEE and JOHN NYENHUIS, EDITORS

## Message from the President of the IEEE Magnetics Society

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I mentioned in a previous column that statistics published by Journal Citation Reports show that the Transactions on Magnetics is one of the most valued journals published by the IEEE. It is also an exceptional value. The nonmember subscription price is 5 to 10 times lower than competing journals that are "for profit," and the price to members of the Society

is an order of magnitude lower than this. Further, for these prices, the Transactions publishes more articles per year than any other IEEE journal.

One of the ways that publication costs have been kept down for many years is the use of camera-ready copy in certain issues. Although this has been cost effective, the use of camera-ready copy presents two significant drawbacks. The first is the challenge of maintaining a uniformity of appearance comparable to the type-set issues. The editors have worked hard to refine formatting instructions for authors, and this combined with the conscientious efforts of authors has resulted in significant improvements in uniformity and appearance over the past several years. The second drawback is much more significant. The use of camera-ready copy seriously limits the ability to electronically search published articles. Many IEEE journals are now available

on-line via the OPeRA program (see the IEEE web page for more details), and many libraries and institutions will rely increasingly on electronic versions of the All Society Periodicals Package from the IEEE over the next several years. The continued use of camera-ready copy will seriously limit the participation of the Transactions on Magnetics in these new electronic products and services.

Recognizing these issues, the Planning Committee led by President-elect Ed Della Torre recently began work on plans for moving away from camera-ready copy, and completely eliminating it within the next two or three years. Although this will open many exciting new possibilities for the transactions as discussed above, it will involve changes in the way authors prepare their manuscripts. At least in the short run, it will also involve some additional costs. The Magnetics Society will help to offset some of the transitional costs, but creative ways of financing these significant improvements will also be needed. Your thoughts on these issues will be welcome. I am really excited about the possibilities this will open for the Society, and the new ways for disseminating the latest information on applied magnetism that this will make possible.

In this last article as president, I would like to conclude by saying that I have considered it a privilege to serve the Magnetics Society these past two years. I believe we are on the verge of a number of exciting developments and plans for the Society including electronic publications, improved member services, globalization, and membership growth. The best times are ahead!

## Last Paper Issue of the Magnetics Society Newsletter

Despite some sentiment to the contrary, the AdCom of the Magnetics Society has decided to discontinue the paper version of the Newsletter. Future issues will be published on the Society Web page at http://www.ieee.org/society/mag. For the convenience of our readers, we will send email notices when a new issue is on the Web page. However, we do not have valid email addresses for many members of the

IEEE Magnetics Society. To be assured of receiving an email notice of upcoming newsletters, please send us an email message with your email. The email should be addressed to j.a.nyenhuis@ieee.org Please place your email in the the subject of your message as follows: EMAIL: email\_address For example, if your email is j.a.nyenhuis@ieee.org, the subject field would be: EMAIL: j.a.nyenhuis@ieee.org

# Distinguished Lecturers for 1999-2000

There are three Magnetics Society Distinguished Lecturers for 1999-2000. The lecturers, the titles of their presentations and contact information are below. More information on Magnetics Society Distinguished Lecturers is available at http://yara.ecn.purdue.edu/~smag/distlect/distlect.html

Roy W. Chantrell
Thermal Activation and Micromagnetics: The Scientific and Technical Challenges
University of Wales, Bangor, United Kingdom
TEL +44-1248-382717/382806 FAX +44-1248-361429
roy@sees.bangor.ac.uk

Fred Jeffers
A Magnetic Magic Show
Iomega Corporation, San Diego, CA USA
TEL 619-879-7275 FAX 619-673-3942
jeffers@iomega.com

Daniel Rugar

Magnetic Resonance Force Microscopy: The Quest for
Single-Spin Sensitivity

IBM Almaden Research Center, San Jose CA USA

TEL 408-927-2027 FAX 408-927-2510

rugar@almaden.ibm.com

#### About the Newsletter

The objective of the IEEE Magnetics Society Newsletter is to publicize activities, conferences, workshops and other information of interest to the Society membership and technical people in the general area of applied magnetics. Copy is solicited from the Magnetics Society membership, organizers of conferences, officers of the Society and local chapters and other individuals with relevant material. The Magnetics Society Newsletter is published approximately four times a year at the Magnetics IEEE Magnetics Society Web Page.

Please send articles, letters and other contributions to one of the coeditors:

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# Magnetics Society Officers and New ADCOM Members

The officers for the Magnetics Society for 1999 are:

#### President:

Edward Della Torre dellator@seas.gwu.edu

#### Vice President:

Robert Fontana, Jr. fontana@almaden.ibm.com

#### Secretary/Treasurer:

Ron Indeck rsi@ee.wustl.edu

#### Past President:

Daniel D. Stancil stancil@gauss.ece.cmu.edu

New members to the Administration Committee (AdCom) for 1999 have been elected. Their terms expire on December 31, 2001 and they are W. Cain, R. Dee, B. Gurney, D. Jiles, K. Mohri, C. Patton, C. Perlov, and T. Suzuki. The names of other members of the AdCom and Magnetics Society Committee Chairs are listed at http://yara.ecn.purdue.edu/~smag/Smag/adcom.html. All of these individuals are working in a voluntary capacity; the Magnetics Society could not exist without the efforts of many volunteers. If you wish to serve for the Magnetics Society, please contact one of the officers.

## MMM '99 to be held Nov. 15-18, 1999 in San Jose, California

The Forty-Fourth Annual Conference on Magnetism and Magnetic Materials, (MMM'99) will be held at the Fairmont Hotel in San Jose, California, USA, November 15-18, 1999. The Conference annually brings together scientists and engineers interested in recent developments in all branches of fundamental and applied magnetism. Emphasis is placed on experimental and theoretical research in magnetism, the properties and synthesis of new magnetic materials, and advances in magnetic technology. The program will consist of invited and contributed papers. Selection of contributed papers is based on abstracts which are due May 15, 1999. Abstract booklets will be made available at the conference, and proceedings will be published in the Journal of Applied Physics. Individuals who are not on the Conference mailing list may obtain Conference information and details concerning the preparation of abstracts by contacting the Conference Coordinator:

> Courtesy Associates 2000 L Street, NW Suite 710 Washington, D.C. 20036 Tel. 202-973-8668 Fax 202-973-8722 magnetism@courtesyassoc.com

The latest information on the conference can be obtained on the World Wide Web via the conference web site:

http://www.magnetism.org

## MMM '98 Held in Miami, Florida

The 43rd Magnetism and Magnetic Materials Conference was held November 9-12, 1998 at the InterContinental Hotel in Miami, Florida USA. The conference was well-attended with more than 1000 participants. There were 533 oral contributed presentations, 33 invited presentations and 397 poster presentations, a record number of presentations for the MMM conference. Topics covered in the presentations included thin films, permanent magnets, microwave magnetics, magneto-optics, magnetic multilayers, magnetic recording, including heads and media, GMR and CMR, and biological and chemical applications of magnetism.

There were three special evening sessions at MMM '98. On Sunday evening there was a tutorial on National Facilities Open to the Magnetism Community. An introduction was made to the types of research in magnetism at some of the National Laboratories. On Monday evening there was a tutorial chaired by Prof. Stanley Charap entitled "Magnetic Time Effects and Their Implications for High Density Magnetic Recording (Superparamagnetic Limit). There were three presentations on thermal stability in magnetic volumes, a germane topic as the disk drive industry contemplates storage density in excess of 20 Gigabits/sq. in. (The maximum density currently in production is about 5 Gb/sq. in.) On Wednesday evening, Dr. Robert McMichael chaired the session entitled "Standard Problems in Micromagnetics". Several speakers, including Prof. Arrott, discussed their solutions to the standard micromagnetic problems posed at the National Institute of Standards and Technology (NIST) at http://www.ctcms.nist.gov/ ~rdm/mumag.org.html The lively presentations and discussion manifested that there is interesting ongoing research in micromagnetic modeling.

In addition to obtaining technical information, conferences are a venue for engineers and scientists to network with their colleagues. MMM '98 provided an excellent environment for personal interaction. There was a bierstube held in the afternoons in the exhibit area. The poster area was roomy and conducive to discussion with the presenters. The Miami ambience contributed to the success of the conference. The weather was balmy and mostly dry and the boat cruise on Tuesday evening was sold out.

# **New Magnetics Society Fellows** for 1999

Six members of the Magnetics Society were recently elected to the grade of IEEE Fellow after evaluation by the IEEE Magnetics Society. The new Fellows and and the contributions leading to their awards are as follows.

Tu Chen, Komag, Inc. San Jose, CA, USA. For contributions to the development of thin film materials, tools and processes used for magnetic and optical information storage disks.

**David Noel Lambeth**, Carnegie Mellon University, Pittsburgh, PA, USA. For scientific, educational and professional contributions in the fields of magnetism, data storage systems, and electronic devices.

Adel Razek, Centre National de la Recherche

Scientifique, Paris, France. For contributions to 3D electromagnetic field modeling and coupled phenomena analysis in electromagnetic systems.

**Norio Takahashi,** Okayama University, Okayama, Japan. For contributions to the finite element modeling and optimal design of magnetic devices.

Mason L. Williams, IBM Almaden Research Center, San Jose, CA, USA. For contributions to the understanding of the digital magnetic recording process and the continued progress of areal density of disk drives.

Arthur Yelon, Ecole Polytechnique de Montreal, Montreal, Quebec, Canada. For contributions to the science and technology of ferromagnetic materials and devices, and to education in the applied sciences.

In addition, Magnetics Society Member Sihgekazu Sakabe, of Mitsubishi Electric Corp., Amagasaki, Japan was elected to Fellow by the Power Engineering Society "For contributions to the analysis and development of electrical machines".

## Intermag '99 to be held May 18-21, 1999 in Kyongju, Korea

Intermag '99 will be held on Tuesday through Friday, May 18-21, at the Hotel Hyundai in Kyongju, Korea. The registration desks will be open on Monday, May 17, 1999. Full details regarding hotel reservations, Conference registration fees, and forms will appear in the Advance Program which will be mailed by February 10.

The General Chair for Intermag 99 is Prof. Il Koo Kang of the Korea Institute of Science and Technology (ikkang@kistmail.kist.re.kr) and the U.S. General Chair is Prof. Mark Kryder of Carnegie Mellon University (kryder@gauss.ece.cmu.edu).

Kyongju is located about 350 km south-east of Seoul. The most straightforward way to travel there is to fly to Pusan and then take surface transportation. On Sunday, May 16 and Monday, May 17 the the conference organizers will provide direct ground transportation from the air terminal of Pusan airport to the Kyongju Hyundai Hotel with sufficient frequency. On other days one can take limousine bus service to Kyongju Bus Terminal from Pusan airport and take a taxi to the Hotel. If you buy your tickets early, air travel to Pusan is surprisingly affordable. One can check prices at http://: www.expedia.com. For example, assuming a departure date of May 14 and returning on May 23, the round trip fare leaving from Chicago is about \$960, and from San Francisco the fare is about \$735.

Intermag '99 will be held in a beautiful and historic area. Kyongju is the old capital of Shilla Kingdom (up to 10th century) and there are many old cultural remains (many Buddhist) which were designated by UNESCO as a world cultural heritage. A number of tours are available for conference participants and their companions. The venue, Hyundai Hotel, is located by a lake in the resort area. Room rate including tax and services is about \$100 US at the current exchange rate.

Detailed information on Intermag '99 is available at http://intermag99.kist.re.kr or by sending email to intermag@kistmail.kist.re.kr

We hope to see you in Kyongju!

# Moscow International Symposium on Magnetism (MISM) to be held June 20-24, 1999

The Moscow International Symposium on Magnetism (MISM), devoted to the memory of E.I. Kondorskii, will be held June 20-24, 1999 at M.V.Lomonosov Moscow State University in Moscow, Russia. The conference will be held in English.

The deadline for submission of abstracts, which may be submitted by email, is March 15, 1999. The main topics of the conference are Micromagnetism and Magnetization Reversal, Transport Phenomena, Itinerant Magnetism, Magnetic Semiconductors, Magnetooptics, Low Dimensional Magnetism, Magnetic Materials, and Miscellaneous. Participants requiring a visa for entry to Russia are strongly recommended to fax the first and second pages of their passports to the conference office, Fax +7-095-932-8820 or +7-095-939-5907, no later than February 28, 1999. Only in this case can the Organizing Committee guarantee that you will obtain a visa in time.

MISM will be held at Moscow State University, the premier academic institution in Russia. The campus is pleasant and the air is clean. It is easy to travel with the Moscow Metro (subway) from the campus to central Moscow and other parts of the city. Moscow State University was the site of the preceding two Conferences on Magnetic Materials for Microelectronics, in 1996 and 1998, each of which had about 300 participants.

The registration fee is \$200, which includes admission to all scientific sessions, a conference book with program and abstracts, the conference proceedings, meeting at Sheremetevo airport and assistance in getting to the conference desk and hotel, a get-together party, and coffee and tea breaks. Rooms are available at the university and at the Yushnaya hotel. Prices range from \$20 - \$40 per night. Each room has private facilities but limited services. Participants may also stay at one of the modern hotels in Moscow, generally at significantly higher rates. Reservations should be made before June 1, 1999.

More information on MISM can be obtained by contacting Dr. Nikolai Perov ( perov@magn.phys.msu.su) and at the conference web site (http://magn.phys.msu.su/~mism).

# CONFERENCE CALENDAR

American Physical Society Meeting, Atlanta, GA http://www.aps.org/centennial/index.html March 20-26, 1999 April 26-28, 1999 18th Annual Conference on Properties and Applications of Magnetic Materials. For information: Bonnie Dow, Illinois Institute of Technology, TEL: 312-567-6809, FAX: 312-567-8976, bonnie@ece.iit.edu May 18-21, 1999 Intermag Conference, Kyongju, Korea. For information, email: intermag@kistmail.kist.re.kr, http://intermag99.kist.re.kr May 17-19, 1999 Electrosoft 99 - Software for Electrical Engineering. Seville, Spain. For information: Liz Kerr, Wessex Institute of Technology, Ashurst Lodge, Southhampton SO40 7AA, United Kingdom, TEL +44-1703-293223 FAX: +44-1703-292853, liz@wessex.ac.uk, http://www.wessex.ac.uk 2nd International Symposium on Hysteresis Modeling and Micromagnetics, Perugia, Ital, For information: Prof. Ermanno June 7-9, 1999 Cardelli, University of Perugia, Institute of Energetics, Via G. Duranti, 1/A-4, 06125 Perugia, Italy, hmm99@unipg.it, http://olympus.unipg.it/hmm99 June 20-24, 1999 Moscow International Symposium on Magnetism (MISM), For information: Nicolai Perov or Alexander Granovsky, MISM, Magnetism Division, Department of Physics, M.V.Lomonosov Moscow State University, Moscow 119899, Russia, TEL: +7-095-939-4787, FAX: +7-095-932-8820 +7-095-939-5907, mism@magn.phys.msu.su, granov@magnet.phys.msu.su, perov@magn.phys.msu.su, http://magn.phys.msu.su/~mism

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