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ICM2018

SAN FRANCISCO

JULY 16-20, 2018
MOSCONE CENTER
icm2018sf.org

21ST INTERNATIONAL CONFERENCE ON MAGNETISM

CALL FOR PAPERS

Dear Colleagues,

The 21st International Conference on Magnetism (ICM2018) will be held in San Francisco, USA, July 16-20, 2018. ICM2018 will be run concurrently with the International Conference on Strongly Correlated Electron Systems (SCES2018). ICM2018 continues a series of meetings held every three years, most recently in Barcelona, Busan, Karlsruhe, and Kyoto, and covers both fundamental and applied research related to magnetism. More than 2,000 scientists from all over the world are expected to attend.

On behalf of the Management Committee of ICM2018, we cordially invite you to attend the Conference and actively participate in its technical sessions, and by doing so to contribute to the continued success of the ICM Conference series. ICM2018 provides an opportunity for you to share your research with the largest and broadest collection of magnetism researchers assembled in one place, and to learn about the most recent developments in the field. Up-to-date information on all aspects of the Conference can be found at www.icm2018sf.org. A list of important dates and a summary of the Conference program are appended below.

San Francisco is the cultural, commercial, and financial center of Northern California, a natural complement to nearby Silicon Valley. The city is located at the north end of the San Francisco Peninsula, which separates the Pacific Ocean from San Francisco Bay. It is the birthplace of the United Nations, and has a long history as a center of liberal activism in the United States. San Francisco is a popular tourist destination known for cool summers, eclectic architecture, lively arts and culture, a varied nightlife, and world-class dining and shopping. The city is composed of a large number of unique neighborhoods, including the Mission District, Chinatown, the Presidio, Haight-Ashbury, North Beach, Nob Hill and Union Square, which we invite you to explore. The Conference hotel, the San Francisco Marriott Marquis Hotel, is located just south of Market Street in the SoMa neighborhood, and offers easy access to the city's best attractions. San Francisco International Airport (SFO) is just 14 miles away. Technical sessions will take place in the recently renovated Moscone Center, located a short walk from the San Francisco Marriott Marquis.

We look forward to seeing you in San Francisco and to an exciting and enjoyable Conference.

Allan MacDonald
ICM2018 General Chair

Liesl Folks
ICM2018 Secretary General

Mark Stiles
ICM2018 Program Chair





IMPORTANT DATES

Invited Speakers and Symposia Nominations Deadline.....	November 17, 2017
Abstract Submission Site Opens	February 12, 2018
Abstract Submission Deadline.....	March 2, 2018
Best Student Presentation Award Nomination Deadline	March 2, 2018
Conference Advance Registration Opens	March 15, 2018
Author Abstract Status Notification.....	April 20, 2018
Child Care Grant Application Deadline	May 10, 2018
Student Travel Grant Application Deadline	May 10, 2018
Manuscript Submission Opens.....	May 15, 2018
Manuscript Submission Deadline	June 5, 2018
Conference Advance Registration Closes.....	June 18, 2018
Hotel Reservation Deadline	June 18, 2018

Conference Program

The program will consist of five plenary lectures, invited and contributed oral presentations, and poster presentations. The Program Committee is chaired by Mark Stiles, Leon Balents, Laura Heyderman, and Hideo Ohno.

Call for Proposals for Invited Presentations and Symposia

Invited Presentations and Symposia are an important aspect of ICM2018. We are soliciting proposals from the magnetism community at large; please submit your proposals online at <https://icm2018.abstractcentral.com>. The deadline for proposal submission is November 17, 2017.

Abstract Submission

Abstract submission will open on February 12, 2018. The deadline for abstract submission (March 2, 2018) will be strictly observed. All abstracts must be submitted online at <https://icm2018.abstractcentral.com>. Abstracts sent via e-mail or regular mail will not be processed or acknowledged. Details about the format are posted on the Conference website. Authors will be informed of the status of their submission via e-mail on April 20, 2018. Most contributions will be presented as posters in sessions that will not compete with other activities.

Technical Presentations

Contributed papers accepted for the Conference will be presented either as oral presentations or as posters, with the majority being posters. Authors should indicate on the submission form if they are willing to present in either form, only as a poster, or only orally. The Program Committee will make the final decision on the assignment of papers to sessions and the presentation format for each session.

Contributed oral presentations will be in the conventional format of a 12-minute talk by a registered author, followed by a 3-minute discussion period. Authors are expected to bring their presentations 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 provide 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 refer to the Conference website.

List of Topics

Conference sessions will be organized under the following topics:

Topic 1: Strongly Correlated Electrons Systems (SCES)

- 1.01 Superconductivity and magnetism
- 1.02 Topological states in strongly correlated electron systems
- 1.03 Heavy fermion systems and Kondo physics including spin, charge and orbital degrees of freedom
- 1.04 Quantum spin liquids
- 1.05 Non-Fermi liquids, quantum criticality and metal-insulator transitions
- 1.06 Non-equilibrium physics in SCES, including mesoscopic Kondo and non-equilibrium pump-probe states
- 1.07 Theory of strongly correlated electron systems
- 1.08 New developments

Topic 2: Spin-Systems and Magnetic Structures

- 2.01 One dimensional magnetism
- 2.02 Molecular magnetism
- 2.03 Highly frustrated magnetism
- 2.04 Spin liquid phases of interacting spin systems
- 2.05 Magnetic theory and simulation of quantum and classical systems
- 2.06 Spin structure, electronic structure, and transport properties
- 2.07 Multiferroics
- 2.08 Magnetic interactions and magnetic phase transitions

Topic 3: Spintronics, Magnetization Dynamics, and Micromagnetics

- 3.01 Spin transport phenomena: AMR, GMR, TMR, STT, SMR, etc.
- 3.02 Tunnel junctions and spin-torque nano-oscillators
- 3.03 Spin-orbit torques and spin-charge conversion
- 3.04 Spin caloritronics
- 3.05 Electric field effects on magnetic systems and voltage controlled switching
- 3.06 Magnetic semiconductors
- 3.07 Semiconductor and organic spintronics
- 3.08 Antiferromagnetic spintronics
- 3.09 Domain wall dynamics
- 3.10 Vortex and skyrmion dynamics
- 3.11 FMR and spinwaves dynamics
- 3.12 Ultrafast magnetization dynamics and terahertz spintronics

Topic 4: Nanomagnetism

- 4.01 Advanced synthesis of magnetic thin films and multilayers
- 4.02 Anisotropy engineering of magnetic thin films and multilayers
- 4.03 Novel applications of magnetic thin films and multilayers
- 4.04 Surface and interface effects
- 4.05 Exchange bias and exchange springs
- 4.06 Theory and modeling of nanomagnetic systems
- 4.07 Thin film and hybrid nanostructures
- 4.08 Arrays of magnetic nanostructures including artificial spin ice
- 4.09 Advanced synthesis, characterization and modelling of nanoparticles
- 4.10 Diagnostic biomedical applications of MNPs
- 4.11 Therapeutic (including “theranostic”) biomedical applications of MNPs
- 4.12 Non-biomedical applications of nanoparticles
- 4.13 Magnetic nanowires and nanotubes
- 4.14 Magnetophotonics and magnetoplasmonics

Topic 5: Magnetic Materials and Technologies

- 5.01 Hard magnetic materials
- 5.02 Soft magnetic materials and magnetic shielding
- 5.03 Materials for Energy applications
- 5.04 Novel materials for sensors, half-metallic ferromagnets, antiferromagnets and magnetic oxides
- 5.05 Magnetic molecules and organics for bio-applications of magnetism
- 5.06 Measuring techniques and instrumentation
- 5.07 Magnetic devices for information storage and processing

Publications

We encourage authors of papers presented at the Conference to consider publishing in the Conference-related issues of the *IEEE Transactions on Magnetics* and *AIP Advances*. The editorial process for the manuscripts will meet the same standards required for regular submissions to the two journals. Papers will be assigned to a journal based on their subject area. We are not able to accommodate individual author preferences for publication venue.

Best Poster Presentations

At each of the eight poster sessions, judges will select the best poster in each topic area. Selections will be based on the level of the research, quality of the poster, and clarity of the presentation. The winning posters will be displayed for the rest of the meeting and the winning presenter will be given a unique commemorative trophy and certificate. These prizes are generously sponsored by the APS Topical Group on Magnetism (GMAG).

Registration

Conference registration will open March 15, 2018 at which time detailed registration fees and policies will be posted.

Hotel

San Francisco Marriott Marquis Hotel

780 Mission Street, San Francisco, California

ICM2018 has negotiated special discounted rates for Conference attendees at the San Francisco Marriott Marquis Hotel. The hotel is located just south of Market Street in the SoMa neighborhood, and offers easy access to the city's best attractions, including the Yerba Buena Gardens, Union Square shopping and AT&T Park (home of the Giants). San Francisco International Airport (SFO) is just 14 miles away. Several great dining options are available within the hotel, including The View Lounge on the 39th floor, with its breathtaking views of the city.

Room Rate = \$224 USD plus tax per night (single/double)

There are a limited number of student rate rooms available at \$189/\$209 USD plus tax per night (single/double). You must present a valid Student ID at check-in. To make your hotel reservation at the student rate, use the code ICM0718STU.

To make your hotel reservations, call +1-877-622-3056 or use <https://aws.passkey.com/go/icmagnetism2018>.

Best Student Presentation Award

This \$1,000 USD one-time fellowship recognizes and encourages excellence in graduate studies in the field of magnetism. Finalists will receive a \$250 USD one-year fellowship. For additional details on the award and the selection process, visit the Conference website under "Students".



Student Travel Grants

Travel grants of up to \$1,000 USD each will be awarded to a limited number of students in the areas of basic and applied magnetism. These grants, sponsored by the IEEE Magnetics Society, are intended to offset travel and local costs related to participation in ICM2018. Support is for current graduate students only. Post-doctoral fellows, undergraduates or non-students are not eligible. To be eligible for the travel grant, the student's advisor must be a member of the IEEE Magnetics Society. Preference for these grants 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 deadline for submitting applications and letters of endorsement is May 10, 2018. Incomplete or late applications and endorsement letters will not be considered. Applicants will be notified of the selections seven to ten days after the deadline.



@ICMConf

Exhibits and Support Opportunities

An exhibition of related services, equipment, materials, software, and technical journals and books will be held as a part of the ICM2018. Individuals and organizations interested in purchasing booth space or supporting the Conference events should contact Jennifer Fiske, Exhibits Manager, at jennifer@icm2018sf.org. The Exhibitor Prospectus is available on the Conference website under "Info/Exhibitors".

Visa Requirements

Visa processing times to enter the U.S. can be as long as three to six months. For details that apply specifically to your country, please go immediately to the nearest U.S. Consulate or Embassy. Review your visa status now and verify if you need a U.S. visa, or visa renewal. You will need to determine how to schedule an interview appointment, pay fees, and obtain other vital instructions. To request a letter of invitation from the Conference, complete the online form on the Conference website at "Travel Guide, Visa Info".

All nationals and citizens of Visa Waiver Program (VWP) countries who plan to travel to the U.S. for temporary business or pleasure for 90 days or less are required by law to obtain travel authorization prior to travel to the U.S. This authorization can be obtained online through the Electronic System for Travel Authorization (ESTA).