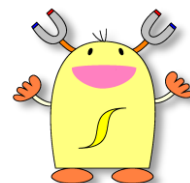


Joint ICAUMS-ISAMMA 2020

Okinawa Convention Center, Okinawa, Japan
December 14-17, 2020



<https://www.magnetics.jp/icaums2020/>

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Masaaki TANAKA

Nagoya Institute of Technology



First Call for Papers

Dear Colleagues,

Welcome to the Joint ICAUMS-ISAMMA 2020

The Joint ICAUMS-ISAMMA 2020 Conference will be held at the Okinawa Convention Center, Japan, from the 14th until the 17th of December 2020.

The Conference is a combination of the ICAUMS (International Conference of the Asian Union of Magnetics Societies) and ISAMMA (International Symposium on Advanced Magnetic Materials and Applications) conferences. These conferences were previously held in 2018 in Jeju, Korea and 2017 in Phu Quoc, Vietnam, respectively.

The aims of the Conference are to bring together scientists and engineers working on all aspects of magnetic materials and their applications and to facilitate the exchange and discussion of recent results and ideas.

The Conference will cover basic and applied aspects of magnetism and magnetic materials and will include oral and poster sessions, invited talks and symposia. Opportunities to exhibit products will also be available.

Okinawa is warm and comfortable throughout the year, with an average temperature in December of 19°C. Direct flights to Naha are available from many cities in Asia. Connecting flights are available from all major Japanese airports.

On behalf of the Organizing Committee of the Joint ICAUMS-ISAMMA 2020, we look forward to welcoming you to Okinawa for an enjoyable, stimulating and memorable conference.

Te-ho WU

President of the Asian Union of Magnetics Societies

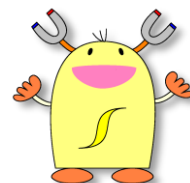
Koki TAKANASHI

Chair of ISAMMA Steering Committee

Katsuji NAKAGAWA

President of the Magnetics Society of Japan





Conference Topics

I. Fundamental Properties and Cooperative Phenomena

- Electronic Structure
- Critical Phenomena
- Spin Glasses and Frustration, and Heavy Fermion Systems
- Quantum Materials and Cooperative States: Superconductivity, Spin Liquids, Chemical Insulators, etc.
- Low-Dimensional Systems and Molecular Magnets

II. Magnetoelectronic Materials and Phenomena

- Multiferroic Materials and Hetero-Structures
- Magnetoelectric Phenomena
- Complex Oxides (Bulk)
- Complex Oxides (Films and Hetero-Structures)
- Half-Metallic Materials
- Magnetoresistance, Magnetoimpedance, and Hall Effect
- Magnetic Semiconductors

III. Spintronics - Fundamentals and Devices

- Giant Magnetoresistance
- Tunnel Magnetoresistance
- Voltage-Controlled Magnetic Anisotropy and Switching
- MRAM, Magnetic Logic, and Related Devices
- Domains and Domain Wall Devices
- Skyrmions and Spin-Orbitronics
- Antiferromagnetic Spintronics
- Spin Injection and Spin Transfer Torques
- Spin Currents, Spin Pumping, Spin Hall, and Related Effects
- Spins in Graphene, Topological Insulators, and Other 2D Materials

IV. Magnetization Dynamics and Micromagnetics

- Magnetization Dynamics and Damping
- Spin Waves
- Vortex Dynamics and Magnetic Texture
- Ultrafast Switching
- Micromagnetic Modeling
- Hysteresis Modeling

V. Soft Magnetic Materials

- Ferrites and Garnets
- Crystalline Alloys
- Amorphous and Nanocrystalline Materials

VI. Hard Magnetic Materials

- Rare-Earth Transition Metal Borides
- Nanostructured Hard Magnetic Materials
- Intermetallic Alloys and Other Hard Magnetic Materials

VII. Functional Magnetic Materials

- Magneto-Optic Materials
- Magneto-Elastic Materials
- Magneto-Caloric Materials
- Microwave and Millimeter-Wave Materials
- New Magnetic Materials

VIII. Nano- and Micro- Structured Materials

- Thin Films and Surface Effects
- Multi-Layered Films and Superlattices
- Patterned Films
- Nanoparticle and Nanowire Arrays and Self-Assembly
- Nanoparticle and Nanowires (not in arrays)
- Exchange Bias
- 3D and Other Magnetic Structures

IX. Sensors, High Frequency Devices

- Magnetic Sensors (non-recording)
- High-Frequency, Microwave, and Millimeter Wave Devices

X. Energy Magnetics for Electrical Vehicles and Power Electronics

- Electrical Machines
- Synchronous Motors and Induction Motors
- Transformers and Inductors
- Magnetics for Power Electronics and Control
- Shielding, Levitation and Propulsion
- Numerical Calculation of Electromagnetic Field
- Measurement for Energy Magnetics

XI. Magnetic Recording

- Recording Media
- Write and Read Heads
- Energy-Assisted Recording
- All-Optical Recording and Other New Recording Technologies
- Recording Systems and Modeling

XII. Magnetic Characterization and Imaging

- Magnetic Microscopy and Imaging
- Instrumentation and Measurement Techniques
- Non-Destructive Measurement and Imaging

XIII. High Magnetic Field and Applications

- High Magnetic Field Generation
- Magnetic Field Orientation
- Magnetic Separation

XIV. Interdisciplinary and Emerging Topics

- Bio-Magnetism and Chemical Magnetism
- Biological Effect of Magnetic Fields & Biomedical Applications
- Magnetic Fluids and Separations
- New Applications
- Education, Outreach, and Public Engagement in Magnetism

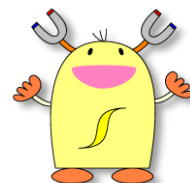
Conference Secretariat

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1. Invited Presentations and Symposia

We are openly seeking symposium proposals for the Conference. The purpose of the symposia is to broaden the knowledge of members and to promote further research and development activities in magnetism and magnetic engineering. **The deadline for symposium proposals is April 30, 2020.** Detailed information on submitting proposals is posted on the Conference website. Invited speakers and special symposia will be selected from the nominations received and will be contacted by Program Co-Chairs. Invited talks will be 25 minutes long, followed by a 4-minute discussion period. **ISAMMA sessions, organized by the ISAMMA steering committee, will be held during the Conference as special symposia consisting of all-invited presentations.**

2. Digest Submission

The deadline for digest submission is July 31, 2020. All digests must be submitted online at the conference website at <https://www.magnetics.jp/icaums2020>. Digests sent via e-mail or regular mail will not be processed or acknowledged. The digest format will be posted on the Conference website. Authors will be informed of the status of their submission via e-mail by end of August, 2020.

3. Presentation

Contributed papers accepted for the Conference will be presented either orally or as posters. Authors are requested to indicate their preference for oral or poster presentation during the online submission process. 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 in their acceptance e-mail.

Contributed oral presentations will be 10-minute talks, followed by a 4-minute discussion period. Authors are expected to bring their presentation on a laptop computer, along with a backup copy on a USB drive in case of laptop failure.

Poster presentations will consist of well-prepared visual materials about the work posted on an assigned board, with the author available to present details and answer questions during the designated poster session. Further instructions will be posted to the Conference website.

4. Publication

All authors of invited and contributed papers who present their work at the Conference are eligible to submit manuscripts for publication. Authors of the Joint IcaUMS-ISAMMA 2020 will be able to choose a journal from the following list.

- Journal of the Magnetism Society of Japan

- Journal of Magnetism
 - SPIN
 - Other Journals (under discussion)
- The details will be updated in the near future.

5. Registration

Advance online registration at reduced rates will be available until October 31, 2020. Online registrations after November 1, 2020 and on-site registrations are accepted only at the higher rates.

6. Venue

The Joint IcaUMS-ISAMMA 2020 will be held at the Okinawa Convention Center (OCC) located in Ginowan city, on the west coast of central Okinawa island.

OCC is the largest multi-function complex in the prefecture with a theater, exhibition hall, and 12 large and small conference rooms.

OCC is adjacent to a beach, marina, seaside park, and an open-air amphitheater.

More information about the OCC can be found here:

<http://www.oki-conven.jp/en/>

Shuttle buses will be provided between a monorail station and the Okinawa Convention Center for the Conference attendees.

7. Exhibits

Corporate exhibition space will be available during the Joint IcaUMS-ISAMMA 2020 conference. This is a great opportunity to showcase your products and technologies to leading researchers, engineers and students with a broad range of interests in magnetism, magnetic materials and their applications. Exhibits will include instrumentation, process tools, materials and other associated technologies and products.

Corporate exhibits by overseas companies are also welcome. For more information, please refer to the Conference website.

8. Reception and Bierstube

Conference attendees are invited to attend an official reception on Wednesday, December 16, from 6:00-8:00 pm. The reception will be held at the neighboring Laguna Garden Hotel, poolside. You will enjoy the authentic taste of Okinawan food and, of course, there will be a great selection of local beers and liquors. You will also be fascinated by the Okinawan folklore dance ceremony.

Also, join us on Monday and Tuesday evenings from 5:00 -7:00 pm for a taste of the best local beers as you network among the poster sessions and corporate exhibits.

9. VISA Requirements

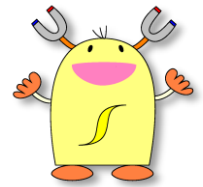
Citizens of countries other than Japan must carry a valid passport to enter Japan. Participants requiring visas



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should contact the Japanese Embassy, Consulate, or Office of Tourism in their home country as soon as possible to determine their particular visa requirements. The application process for a visa should be commenced well before the start of the conference (preferably two months, or more).

The Secretariat can issue a signed Invitation Letter and other necessary documents to those participants who have completed both the registration and payment, and need a visa. For more information, please check the Conference website.

Please note that the Joint IcaUMS-ISAMMA 2020 Secretariat cannot contact or intervene with any Japanese Embassy or Consulate office abroad on your behalf. Also, please note that the Invitation Letter does not imply a commitment from the conference organizers to provide any form of financial support.

The following page contains more information about visa requirements for Japan: If anything is not clear please contact your nearest Japanese Embassy or Consulate for advice. https://www.mofa.go.jp/j_info/visit/visa/index.html

10. Getting to Tropical Paradise, OKINAWA

Naha Airport (OKA) serves the main island of Okinawa. Direct, international flights are available from many Asian cities, such as Beijing, Seoul, Taipei, Bangkok, Singapore etc. From within Japan flights to Naha airport are available from all major Japanese airports, such as Tokyo (Narita and Haneda), Osaka (Kansai and Itami), Nagoya, Fukuoka, Sendai etc.



Temperature

Okinawa is warm and comfortable throughout the year. The average temperature in December is 18.7°C and it

never snows, although Okinawa's winters sometimes have strong winds.

Reference

Website of VISIT OKINAWA JAPAN

<https://www.visitokinawa.jp/about-okinawa/overview-of-okinawa>



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11. Important Dates

Symposium Proposals Deadline	April 30, 2020
Abstract Deadline	July 31, 2020
Abstract Acceptance Notification	August 31, 2020
Manuscript Submission Periods	J. of MSJ: October 1 ~ December 31 J. of Magnetics: under discussion SPIN: ~ December 31 Other Journals: under discussion
Early Registration Deadline	October 31, 2020