



2021 CALL FOR ABSTRACTS & PAPERS

◆ **Abstract Submission Deadline: Thursday, April 15, 2021, 11:59 PM, US Eastern Time** ◆

We invite you to participate in the virtual 2021 joint 23rd Cryogenic Engineering Conference (CEC) and International Cryogenic Materials Conference (ICMC) to be jointly held from **July 19 – 23, 2021**, for a lively, enriching virtual meeting of cryogenic-related topics exchanging recent state-of-the-art developments in all areas of cryogenics, including superconductivity, cryocoolers, cryogenic materials, and applications.

The virtual Conference will be held via the Whova platform and will consist of plenary and special sessions, as well as concurrent oral sessions, poster presentations (with the option to also upload pre-recorded video presentations), and short courses.

ABSTRACT SUBMISSION

Authors are requested to submit abstracts and papers that address any aspect of cryogenic engineering and cryogenic materials research. The subject matter should be technically oriented and feature new, original developments in cryogenic engineering and materials.

Abstracts must be submitted in English and will be reviewed for content. Abstracts will be accepted for oral and poster presentations. All presenters of accepted abstracts must upload an electronic copy of their presentation to the CEC/ICMC 2021 virtual platform **ONE WEEK PRIOR** to the start of the Conference.

Complete information regarding abstract submission can be found at <https://www.cec-icmc.org>. **The deadline to submit abstracts is April 15, 2021 (11:59 PM, Eastern Time, UTC-5)**. Abstracts that are not submitted to the submission site by the deadline will only be considered at the discretion of the Program Chairs.

PRESENTATIONS AND PUBLICATIONS

All presentations must be in English. Presenting authors must register for the Conference. Manuscripts based on the Conference presentations will be peer reviewed for possible publication in the Conference proceedings. The mode of presentation (oral or poster) will have no effect on the review of the submitted paper, however, the presentation must be given during the scheduled day/time or the paper submitted will not be considered for peer review. Acceptance of an abstract for presentation does not guarantee publication in the Conference proceedings. Instructions for manuscript preparation will be made available at <https://www.cec-icmc.org/>.

EXHIBITS, SUPPORT & ADVERTISING OPPORTUNITIES

Exhibitors will have the opportunity to promote their equipment, systems, products, software, publications and services during the Conference by posting literature, videos, images to their designated booth/detail page of the virtual platform. This is a perfect opportunity to stay connected to the scientific community and showcase your products and services. **Exhibit registrations will be accepted until July 2, 2021.**

Support and a la carte advertising opportunities are also available to further enhance your visibility such as a designated promotional presentation during the Conference or promotional emails sent to attendees.

Detailed exhibit, support & advertising information will be made available at <https://www.cec-icmc.org>.

CONFERENCE INFORMATION

All Conference related information will be made available on the Conference website at <https://www.cec-icmc.org>. For any additional Conference inquiries, please contact the Conference Management at:

Centennial Conferences

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Phone: +1 303-499-2299 • Fax: +1 303-499-2599

Email: cecicmc@centennialconferences.com

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AWARDS AND SCHOLARSHIPS

Participants are encouraged to submit nominations to the CEC and ICMC for the awards, most of which will be presented during the Conference. Further information on submitting nominations or applying is available at <https://www.cec-icmc.org>.

CEC AWARDS

- The **Samuel Collins Award** honors major contributions to cryogenic engineering. *The deadline for nominations is March 15, 2021.*
- The **Russell B. Scott Best Paper Awards** will be given to authors of selected CEC papers presented at the 2019 Conference.
- The **CEC Klaus & Jean Timmerhaus** and **Donna Jung Scholarships** will be awarded at the 2021 Conference. The scholarship is intended to "develop and foster increased interest and participation in fields of cryogenic studies and to encourage future engineers and scientists in these areas". *The deadline for applications to either scholarship is May 31, 2021.*

ICMC AWARDS

- The **ICMC Lifetime Achievement Award** is given in recognition of lifetime achievements in advancing the knowledge of cryogenic materials. *The deadline for nominations is March 15, 2021.*
- The **ICMC Cryogenic Materials Award for Excellence** is awarded annually at the ICMC Conference, subject to the nomination of an appropriate candidate and individual under 40 years of age, to "recognize excellence in advancing the knowledge of cryogenic materials over recent years". *The deadline for nominations is March 15, 2021.*
- **ICMC Student Meritorious Paper Award** will be given to an author of a selected ICMC paper presented at the 2019 Conference.
- **ICMC Best Paper Awards** will be given to authors of selected papers presented at the 2019 Conference.

NOMINATIONS FOR THE CEC BOARD

Individuals wishing to nominate a person or themselves for the CEC Board elections are requested to contact:

Wolfgang Stautner
GE Global Research
One Research Circle, EP 113A | Niskayuna, NY 12309
Phone: +1-518-387-7436 | Email: stautner@research.ge.com

The deadline for nominations is May 17, 2021.

PROGRAM SUGGESTIONS

Suggestions concerning the technical program, particularly topical workshops and special sessions, should be directed to the appropriate Conference or Program Chair.

CEC:

Conference Chair
Peter Bradley
NIST
Email: peter.bradley@nist.gov

Program Chair
Sastry Pamidi
FAMU-FSU, College of Engineering
Email: pamidi@eng.famu.fsu.edu

Program Vice-Chair
Peter Kittel
Consultant
Email: pkittel@cal.berkeley.edu

ICMC:

Conference Chair
Timothy Haugan
USAF AFMC AFRL/RQQM
Email: Timothy.Haugan@us.af.mil

Program Co-Chair
Shreyas Balachandran
NHMFL
Email: shreyasb@asc.magnet.fsu.edu

Program Co-Chair
Tengming Shen
LBNL
Email: tshen@lbl.gov

CALL FOR SPECIAL SESSIONS

The CEC and ICMC Organizers invite the community to propose Special Sessions within the general scope of the Conference. To submit your special session proposal, please email the appropriate Program Chairs listed below to include the session title and abstract to include the motivation of the special session.

CEC/ICMC ABSTRACT SUBMISSION CATEGORIES

CEC SUBMISSION CATEGORIES

- CEC-01 – Large-Scale Refrigeration and Liquefaction
- CEC-02 – Large-Scale Systems, Facilities and Testing
- CEC-03 – Cryocoolers (Non-Aerospace)
- CEC-04 – Cryocoolers (Aerospace)
- CEC-05 – Components: Expanders, Pumps, Compressors, Heat Exchangers, and Heat Pipes
- CEC-06 – Components: Superconducting Magnet Systems
- CEC-07 – Components: Superconducting RF Systems, Power Cables, and Leads
- CEC-08 – Applications: Instrumentation, Visualization and Controls
- CEC-09 – Applications: Fuel, Transportation, Medical, and Food
- CEC-10 – Applications: Aerospace
- CEC-11 – Applications: Safety, Reliability, and Standards
- CEC-12 – Applications: Medicine and Biology
- CEC-13 – Thermal-Fluid Transport and Properties: Fluids Boiling Above 50 K
- CEC-14 – Thermal-Fluid Transport and Properties: Fluids Boiling Below 50 K
- CEC-15 – Thermal-Fluid Transport and Properties: Thermal Insulation Systems
- CEC-16 – Miscellaneous

ICMC SUBMISSION CATEGORIES

- ICMC-01 – NbTi/Nb₃Sn/A15
- ICMC-02 – MgB₂ Wires and Tapes
- ICMC-03 – BSCCO Wires and Tapes
- ICMC-04 – REBCO Coated Conductors
- ICMC-05 – Flux Pinning and Critical Current
- ICMC-06 – LTS and HTS Cables
- ICMC-07 – HTS and MgB₂ Bulks
- ICMC-08 – Fe-based and New Superconducting Materials
- ICMC-09 – Thin Films, Multilayers, and Artificial Structures
- ICMC-10 – Cryogenic Materials Testing and Methods
- ICMC-11 – Metallic, Ceramic, Composite and Polymeric Materials
- ICMC-12 – Insulation/Conduction, Resins and Impregnation, and Dielectric Properties
- ICMC-13 – Thermal, Electrical, and Magnetic Properties, Radiation, Degradation
- ICMC-14 – Superconductor Measurements: Mechanical, Electrical, AC Loss and Stability
- ICMC-15 – Applications: Microelectronics, Photonics, Sensors, Detectors, Computation
- ICMC-16 – Applications: Power Electronics, Electric Propulsion, Transportation
- ICMC-17 – Special Sessions