

Call for Contributions for

Submission:

1. Inform the Chair: with the Title of your Contribution.

2. Submission URL:

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ICQNM+2021+Special>

Please select Track Preference as **QIST**

3. Note: *For 2021, all events will be held in a hybrid mode: on site or virtual choices (live, prerecorded videos, voiced presentation slides, and .pdf slides). We hope for better times allowing us to return to the traditional on-site scientific events. However, we are ready to adapt any which way the conditions dictate.*

Special track

QIST: Quantum Information Science and Technology

Chair

Prof. Kyle Sundqvist, Assistant Professor, San Diego State University, Physics Department, USA
dr.k.sundqvist@gmail.com

along with

ICQNM 2021, The Fifteenth International Conference on Quantum, Nano/Bio, and Micro Technologies

<https://www.iaria.org/conferences2021/ICQNM21.html>

November 14-18, 2021 - Athens, Greece

The growing popularity and interest in Quantum Information Science and Technology (QIST) stems from the potential to implement systems with quantum-mechanical properties to process and transmit data. Quantum effects, usually described within physics and related fields, are being leveraged to explore new frontiers in information sciences. The primary quantum effects under consideration include entanglement and superposition. Entanglement describes a correlated interdependence between prepared quantum states, whereas superposition describes the ability for a quantum system to probabilistically occupy multiple states.

This special track is interested in exploring certain efforts within Quantum Information Science and Technology. Educational efforts regarding QIST have been primarily geared at the graduate level and beyond. However, several institutions are undertaking efforts to expand the scope of training the future quantum workforce to include younger students. Thus, we wish to showcase efforts regarding the explorations of traditional quantum algorithms, which may also showcase educational benefits to all researchers. Furthermore, we would like to showcase efforts to emulate quantum processing behaviors using purely analog, classical systems. Showcasing recent classical emulation efforts will help researchers distinguish properties typically regarded as purely quantum-mechanical from properties that may be classical, albeit found only in unique systems.

Topics include, but are not limited to:

Quantum information science and technology;
Quantum algorithms;
Hamiltonian dynamics;
Variational techniques;
Quantum search;
NISQ algorithms;
Classical emulation of quantum systems.

Important Datelines

Inform the Chair: As soon as you decide to contribute.

Submission: October 1, 2021

Notification: October 15, 2021

Registration: October 25, 2021

Camera ready: October 25, 2021

Note: The submission deadline is somewhat flexible, providing arrangements are made ahead of time with the chairs.

Contribution Types

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format

- See: <http://www.iaria.org/format.html> [both LaTeX and .doc templates]
- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>
- More information on camera ready preparations will be posted after the paper notifications are sent out.

Publications

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iariajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

Paper Submission

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Registration

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.iaria.org/registration.html>

Contacts:

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