

Call for Contributions

Submission:

1. **Inform the Chairs:** with the Title of your Contribution

2. **Submission URL:**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ICQNM+2018+Special>

Please select Track Preference as **ASQ**

Special track

ASQ: Applications and Systems of Quantum Randomness

Chairs and Coordinators

Stefan Schauer, Scientist, PhD, Austrian Institute of Technology, Center of Digital Safety and Security, Vienna, Austria

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along with

ICQNM 2018, The Twelfth International Conference on Emerging Security Information, Systems and Technologies

September 16, 2018 to September 20, 2018 - Venice, Italy

<http://www.aria.org/conferences2018/ICQNM18.html>

Randomness is an intrinsic property of quantum mechanics and has been implemented at the core of several random number generators. Such Quantum Random Number Generators (QRNGs) as source of true randomness, i.e., devices that create a random bit stream based on purely physical phenomena. In this context, QRNGs have the advantage that they are, unconditionally random, which makes them attractive for many different fields of application.

This special track proposes to explore the research on quantum randomness and QRNGs as well as its combination with and application in simulations, computer experiments and cryptography. This covers research evolving around statistical foundations on the quality of existing QRNGs relative to PRNGs, techniques and systems that use quantum mechanical effects to generate random numbers.

Topics include, but not limited to:

- QRNG systems and platforms
- Statistical foundations of randomness and comparison of QRNG and PRNG
- QRNG lab experiments and demonstrations
- Applications of QRNG/PRNG in simulations and computer experiments
- Applications of QRNG/PRNG in Quantum Key Distribution
- Post-processing mechanisms for QRNGs
- Physical foundations of quantum randomness

Important Datelines

- Inform the Chair (see Contacts below): as soon as you decided to contribute

- Submission: ~~June 4~~ **July 10**

- Notification: ~~July 2~~ **July 30**
- Registration: ~~July 16~~ **August 10**
- Camera ready: ~~July 22~~ **August 10**

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.iaia.org]
- Presentations: slide only [slide-deck posted on www.iaia.org]
- Demos: two pages [posted on www.iaia.org]

Paper Format

- See: <http://www.iaia.org/format.html>
- Before submission, please check and comply with the editorial rules: <http://www.iaia.org/editorialrules.html>

Publications

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iaiajournals.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.iaia.org/registration.html>

Contacts

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