

Call for Contributions

Submission:

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

2. **Submission URL:**

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

Please select Track Preference as **SFSO**

Special track

SFSO: Satellite and Free Space Optical Communications

Chair and Coordinator:

Dr. Peng Deng, EE, The Pennsylvania State University (PSU), USA

pxd18@psu.edu dptyleo@gmail.com

along with

SPACOMM 2018, The Tenth International Conference on Advances in Satellite and Space Communications

April 22, 2018 to April 26, 2018 - Athens, Greece

<http://www.iaria.org/conferences2018/SPACOMM18.html>

The rapid growth of satellite constellations, enabled by the increasing availability of small-sized and low-cost satellites, can provide global real-time remote sensing and communications. Data intensive satellite sensors produce a large amount of information to be transmitted to the ground in a short time, which requires high-capacity communications. Information security is also becoming an urgent issue in satellite constellations, because the amount of critical and valuable data to be communicated is increasing.

Free Space Optical communications (FSO) have evolved as a promising alternative for high capacity data links from space, due to the unregulated spectrum, ultra-low inter-channel interference and featuring smaller and lighter terminals. Free Space Optical Communications combined with a quantum receiver provide a requisite platform for intrinsically hack-proof secure communication, known as Quantum Key Distribution (QKD). Free Space Optical Communications can be used for satellite-to-satellite cross-links, up-and-down links between space platforms and aircraft, ships, and other ground platforms, and among mobile and stationary terminals within the atmosphere.

The main objective of this track is to explore the landscape of high-capacity secured FSO communications for the development of future satellite networks, such as a) Inter-satellite optical communications, b) Ground-to-satellite optical communications, c) Atmospheric turbulent optical channel, d) Optical Antenna, e) modulation and coding, f) Acquisition, Tracking and Pointing, g) passive corner-reflector satellites to receive single photons, h) quantum key distribution (QKD), and i) quantum-limited coherent communication.

Prospective authors are invited to submit original papers on topics including, but not limited to:

- Free-space optical communications
- Inter-satellite optical cross-links
- Optical up-and-down links between satellites, ground, and aircraft
- Acquisition, Tracking and Pointing
- Optical Antenna,
- MEMS, Beam steering
- Reconfiguration, software defined networks
- Turbulent atmospheric optical channel
- Adaptive Optics

- Beam Shaping
- Latency, Efficiency, Mobility and Bandwidth
- Coherent Optical Communications
- Quantum Key Distribution (QKD)
- Free Space Quantum Optical Communications

Important Datelines

- Inform the Chairs: As soon as you decided to contribute
- Submission: ~~January 17, 2018~~ **February 28, 2018**
- Notification: ~~February 22, 2018~~ **March 5, 2018**
- Registration: ~~March 8, 2018~~ **March 10, 2018**
- Camera ready: ~~March 15, 2018~~ **March 20, 2018**

Note: These deadlines are somewhat flexible, providing arrangements are made ahead of time with the chair.

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

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>
- Conference proceedings are sent for indexing to ISI Thomson Reuters by Filodiritto/InFOROmatica Publisher, Italy

Paper Submission

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SPACOMM+2018+Special>
Please select Track Preference as **SFSO**

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

Chair: Dr. Peng Deng, pxd18@psu.edu dptyleo@gmail.com
SPACOMM Logistics: steve@iaria.org