

## **Announcement of an *IEEE/Optica Publishing Group* *Journal of Lightwave Technology Special Issue* on: Integrated Photonics for Quantum Applications**

Announcing a Special Issue of the IEEE/Optica Publishing Group Journal of Lightwave Technology on:

### **INTEGRATED PHOTONICS FOR QUANTUM APPLICATIONS**

#### **Scope description:**

This JLT Special Issue covers topics in the field of integrated photonics for emerging quantum applications such as communications, computing, networking, sensing, and metrology and aims to provide researchers and students with the newest developments in these rapidly evolving fields. We welcome submissions that highlight recent advancements in photonic integrated circuits and/or their integration into systems and sub-systems for quantum applications.

The scope of this special issue includes, but is not limited to, the following:

- Chip-scale single photon, entangled photon, and squeezed light sources
- Light sources for quantum applications
- Quantum frequency converters
- Quantum transducers
- Single and photon number resolving detectors for quantum applications
- Coherent detectors for quantum applications
- Fiber or integrated photonic waveguides for quantum applications
- Integrated quantum photonics in various platforms
- Novel photonic structures for efficient quantum devices
- Quantum memories/Quantum repeaters
- Integrated photonics for quantum key distribution systems and networks
- Integrated photonics in support of other qubit modalities (ions, solid state color centers, etc...)
- Material progress for photonic structures
- Hybrid approaches to photonic interfacing of qubits
- Integrated photonics for photonic quantum computing

On behalf of the Guest Editors and the Editor-in-Chief, we encourage you to submit your work for inclusion in this Special Issue. Accepted papers will appear in the Sept/Oct 2022 hardcopy issue with accepted papers posted online within one week of author final file upload. Mandatory page charges of \$260.00 per page are enforced for Original Contributions in excess of 7 pages and Invited Papers in excess of 10 pages. Tutorial presenters will be invited to write articles that are up to 16 pages in length. The same mandatory fees apply to each Tutorial paper in excess of 16 pages.

Submissions by website only: <http://mc.manuscriptcentral.com/jlt-ieee>

Manuscript Type: "Integrated Photonics 2022"

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The Guest Editors for this Special Issue are: **Fotini Karinou** (Microsoft Research Ltd, UK), **Cheryl Sorace-Agaskar** (MIT Lincoln/US), **Jin Liu** (Sun Yat-Sen University/China), **Galan Moody** (UCSB/US), **Eleni Diamanti** (CNRS/Europe), **Kartik Srinivasan** (NIST and Joint Quantum Institute/US), **Di Zhu** (IMRE, A\*STAR/Singapore), **Benjamin Pingault** (Harvard University/US and Delft Technical University/EU).

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