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## Call for Papers

Announcing an Issue of the IEEE

JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS on

### Optical Signal Processing

Submission Deadline: June 1, 2020

Hard Copy Publication: March/April 2021

The IEEE Journal of Selected Topics in Quantum Electronics (JSTQE) invites manuscript submissions in **Optical Signal Processing**. The field of **Optical Signal Processing** is very broad and multidisciplinary, incorporating areas from materials, device design, and fabrication; system demonstration; and mathematical tools. Linear and nonlinear techniques are used extensively for applications ranging from optical communications, RF communications, quantum communications and processing, to ultrafast science and biophotonics. The *IEEE Journal of Selected Topics in Quantum Electronics* invites manuscript submissions in the area of **Optical Signal Processing**. The purpose of this issue of JSTQE is to highlight the recent progress and trends in developing leading-edge optical signal processing technologies and techniques. Areas of interest include (but are not limited to):

#### **Broadband, high-efficiency nonlinear devices**

- Photonic integrated circuits, e.g., with structural nonlinear enhancement or mixed linear and nonlinear elements, for optical signal processing
- Semiconductor devices, including semiconductor optical amplifiers and sources
- Nonlinear material platforms for optical signal processing
- Highly nonlinear fibers

#### **Systems applications and demonstrations**

- Linear and nonlinear optical signal processing techniques for communications and information processing (optical, RF, and quantum)
- Optical switching technologies, concepts, and techniques

#### **Mathematical tools**

- Time-frequency techniques
- Fourier techniques
- Neuromorphic computing and deep learning applied to optical signal processing

The Primary Guest Editor for this issue is **Lawrence Chen**, McGill University, Canada. The Guest Editors are: **Bill Corcoran**, Monash University, Australia; **Amy Foster**, Johns Hopkins University, USA; **Leif Oxenløwe**, DTU, Denmark; **Chester Shu**, Chinese University of Hong Kong, Hong Kong.

The deadline for submission of manuscripts is **June 1, 2020**. Hardcopy publication of the issue is scheduled for **March/April 2021**.

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#### **For inquiries, please contact:**

**IEEE Photonics Society JSTQE Editorial Office - Chin Tan Lutz (Phone: 732-465-5813, Email: [c.tanlutz@ieee.org](mailto:c.tanlutz@ieee.org))**

The following documents located at <http://mc.manuscriptcentral.com/jstqe-pho> are required during the mandatory online submission.

1) PDF or MS Word manuscript (double column format, up to 12 pages for an invited paper, up to 8 pages for a contributed paper). Manuscripts over the standard page limit will have an overlength charge of \$220.00 per page imposed. Biographies of all authors are mandatory, photographs are optional. See the Tools for Authors link: [www.ieee.org/web/publications/authors/transjnl/index.html](http://www.ieee.org/web/publications/authors/transjnl/index.html).

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