



Call for Papers

Announcing an Issue of the IEEE
JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS on

Emerging Applications of Multimode, Multicore and Specialty Fibers

Submission Deadline: October 1, 2019
Hard Copy Publication: July/August 2020

The **IEEE Journal of Selected Topics in Quantum Electronics** (JSTQE) invites manuscript submissions in the area of **Emerging Applications of Multimode, Multicore and Specialty Fibers**. For the past few decades, research on optical communications has focused on developing new optical fibers and systems to solve the capacity saturation of conventional singlemode fibers. The addition of the spatial dimension to the portfolio of optical multiplexing technologies, widely known as Space-Division Multiplexing (SDM), boosted the development of novel optical fibers including among others multicore, multimode and few-mode fibers. The growing interest on these novel fibers has very recently opened up new avenues for research in emerging fields of application including radio access networks, imaging, optical fiber sensing or astrophotonics. This special issue will address the current progress and latest breakthroughs in emergent applications of space-division multiplexing and specialty fibers, covering among others the following areas of interest:

- Multicore, multimode and specialty fibers for high-capacity digital communications
- Space-division multiplexing in fiber-wireless and 5G communications
- Imaging through multimode fibers
- Space-division multiplexed submarine links
- Multicore, multimode and specialty fibers for optical sensing
- Space-division multiplexing in astrophotonics
- Multimode- and multicore-based quantum optics
- Space-division multiplexing for radiofrequency photonics
- Nonlinear multimode optics
- Application of multicore, multimode and specialty fibers in data center links
- Industrial applications of multicore, multimode and specialty fibers

The Primary Guest Editor for this issue is **Ivana Gasulla**, Universitat Politècnica de València, Spain. The Guest Editors of the issue are **Rodrigo Amezcuca Correa**, University of Central Florida, USA; **Nicolas Fontaine**, Nokia Bell Labs, USA; **Sergio Leon-Saval**, University of Sydney, Australia; **Dan Marom**, The Hebrew University of Jerusalem, Israel and **Ben Puttnam**, NICT, Japan.

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For inquiries, please contact:

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

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