



Call for Papers

Announcing a Special Issue of the
IEEE Journal of Selected Topics in Quantum Electronics on
Microresonator frequency comb technologies

New Submission Deadline: **February 29, 2024**

Hard Copy Publication: September/October 2024

The *IEEE Journal of Selected Topics in Quantum Electronics* (JSTQE) invites manuscript submissions in broadly defined microresonator frequency comb technologies. Microresonator-based photonics grew to a broad and multi-disciplinary field over the last decade. It draws upon knowledge in fields ranging from fundamental and applied physics, chemistry, material and device science to quantum information as well as linear, nonlinear and ultrafast science. The microresonator-related research focuses on advancing fundamental knowledge and techniques, as well as applications in diverse areas from biology to quantum sciences and technology. The purpose of this issue is to provide an overview of ongoing progress and trends in advancing the knowledge, understanding, and novel applications of microresonator-based technology with focus on generation and applications of microresonator frequency combs. Areas of interest include (but are not limited to):

- Dispersion management and functionalization
- Fundamental properties
- Oscillators and frequency synthesis
- Signal processing and sensing
- Clocks and timing
- Spectroscopy
- LIDAR and RADAR
- Quantum physics, photonics and optics
- Astronomy and astrophysics
- THz generation, measurement and communications
- 5G and 6G applications
- Mode locked lasers

Primary Guest Editor: Andrey Matsko, Jet Propulsion Laboratory, California Institute of Technology, USA

Guest Editors: Miro Erkintalo, University of Auckland, New Zealand
Yanne Chembo, UMD, USA
Chengying Bao, Tsinghua, China
Yoshitomo Okawachi, Cornell, USA
Mustapha Tlidi, Université Libre de Bruxelles, Belgium
Dmitry Skryabin, University of Bath, UK
Tobias Herr, Hamburg University, Germany

Website submissions: <https://ieee.atyponrex.com/submission/dashboard?siteName=jstqe-pho>

Submission questions: Alexandra Johnson, *IEEE Journal of Selected Topics in Quantum Electronics* (johnson.a@ieee.org)

Unedited preprints of accepted manuscripts are normally posted online on IEEE Xplore within one week of the final files being uploaded by the author(s). Posted preprints have digital object identifiers (DOIs) assigned to them and are fully citable. Once available, the preprints are replaced by final copy-edited and XML-tagged versions of manuscripts on IEEE Xplore. This usually occurs well before the hardcopy publication date. These final versions have article numbers assigned to them to accelerate the online publication; the same article numbers are used for the print versions of JSTQE.

The following documents are required: 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