



Call for Papers

Announcing an Issue of the IEEE

JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS on Advances in Free Space Laser Communications

Submission Deadline: April 1, 2025
Hard Copy Publication: January/February 2026

The IEEE Journal of Selected Topics in Quantum Electronics (JSTQE) invites manuscript submissions in **Advances in Free Space Laser Communications**. The emerging field of **Free Space Laser Communications** has leveraged the huge terrestrial fiber optics industry together with recent proliferation of affordable space launches to become a realistic solution for space-based constellations cross-links, high bandwidth data downlinks and communication needs for human space flight. With multiple organizations across the globe continuing to innovate in this field both with technology development and system designs, lasercom is poised to revolutionize the field of space-based communications in the near future by providing unique solutions to the communications bottleneck as well as systems size, weight and power limitations. The *IEEE Journal of Selected Topics in Quantum Electronics* invites manuscript submissions in the area of **Free Space Laser Communications**. The purpose of this issue of JSTQE is to highlight the recent progress and trends in developing leading-edge lasercom technologies. Areas of interest include (but are not limited to):

Advanced free space optical communications systems

- Present, future, and next-generation laser communications systems including space-based, airborne, space/air to ground systems
- Laser communications systems for quantum communications
- Novel communications architectures for LEO, MEO, GEO and deep-space applications employing lasercom or hybrid RF systems

Progress in free-space laser communication technologies, both fundamental and enabling, and atmospheric propagation

- Advances in free-space lasercom transmitter and receiver designs for space and terrestrial-based systems
- Advances in subsystems relevant to free space lasercom, including optical and optoelectronic components, lasers and amplifiers
- Ground terminal technologies and architectures such as adaptive optics, high power transmitters, highly sensitive receivers
- Space-based pointing, acquisition and tracking (PAT) systems, including novel sensing devices and PAT techniques
- Atmospheric propagation, transmission effects, and compensation techniques

The Primary Guest Editor for this issue is **Dr. Katia Shtyrkova**, MIT Lincoln Laboratory, Lexington, USA. The Guest Editors are: **Dr. Farzana Khatri**, MIT Lincoln Laboratory, Lexington, USA; **Dr. Malcolm W. Wright**, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA; **Dr. Dimitar Kolev**, National Institute of Information and Communications Technology (NICT), Tokyo, Japan

JSTQE will begin accepting submissions for this special issue on **October 15, 2024**. The deadline for submission of manuscripts is **April 1, 2025**. Hardcopy publication of the issue is scheduled for **January/February 2026**.

Unedited preprints of accepted manuscripts are normally posted online on IEEE Xplore within 1 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.

For inquiries, please contact:

IEEE Photonics Society JSTQE Editorial Office – Alexandra Johnson (Email: johnson.a@ieee.org)

Paper submission via IEEE Author Portal: <https://ieee.atyponrex.com/journal/jstqe-pho>

- 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.
- 2) JSTQE uses the iThenticate software to detect instances of overlapping and similar text in submitted manuscripts and previously published papers. Authors should ensure that relevant previously published papers are cited and that instances of similarity are justified by clearly stating the distinction between a submitted paper and previous publications.