
Call for Papers
IEEE Photonics Journal
Special issue on Emerging Frontiers in Photonics

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Scope and Topics

Photonics continues to drive transformative advances across science, engineering, and industry. Rapid progress in materials, device architectures, integrated platforms, computational methods, and system-level innovations is reshaping the landscape of modern photonics and enabling new capabilities across communications, sensing, artificial intelligence, quantum technologies, and energy applications.

This Special Issue of the *IEEE Photonics Journal* aims to highlight emerging research directions and breakthrough developments that are defining the next generation of photonic technologies. The issue seeks high-quality original contributions spanning fundamental advances to system-level demonstrations, with an emphasis on innovation, scalability, and real-world impact. It draws inspiration from the broad technical themes represented at the IEEE Photonics Conference (IPC), a premier international forum for advances across the full spectrum of photonics research.

Authors of papers presented at IPC 2025 are encouraged to submit extended versions of their work. Original submissions aligned with the thematic focus of this Special Issue are equally welcome. All manuscripts must contain substantial new technical contributions beyond any previously published material.

Topics of interest include, but are not limited to:

1. Integrated Photonics, Materials, and Fabrication
2. Microwave Photonics and RF-Photonics
3. Optical Communication and Networks
4. Optical AI and Computational Photonics
5. Detection, Sensing, and Imaging
6. Light Sources and Nonlinear Photonics
7. Nanophotonics, Plasmonics, and Metamaterials
8. Quantum and Emerging Photonic Technologies

Submission Guidelines

Submissions will be reviewed in accordance with the normal procedures of the Journal and papers must be formatted according to the Information for Authors found at:

<https://ieeephotonics.org/publications/photonics-journal/>

- Select the paper type “**Special Issue on Emerging Frontiers in Photonics.**”
- Select technical topic “**06 – Focus Issue.**”

Important Dates

Open for Submissions: March 30, 2026

Submission Deadline: July 31, 2026

Tentative Publication: 2026

EARLY ACCESS: *DOI-citable articles will be published online after acceptance upon submission of final files and rights selection – sometimes well in advance of issue publication.*

For further information, contact the PJ Editorial Office:

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