

Special Issue

Optical Fiber Communication: Challenges and Opportunities

Message from the Guest Editors

This Special Issue, entitled “Optical Fiber Communication: Challenges and Opportunities”, is dedicated to showcasing the latest explorations and advancements in this research field. We are pleased to invite you to submit your latest research findings to this Special Issue, which welcomes both original research articles and reviews. Topics of interest include, but are not limited to, the following:

- Fiber-optic communications;
- Digital and optical signal processing for optical fiber communications;
- Devices and components for optical fiber communications;
- Subsystems for optical transmission;
- Hybrid fiber/free-space optical communications;
- Optical channel models and characteristics;
- Optical networks;
- 5G/6G fronthaul;
- Passive optical networks;
- Wavelength-division multiplexing techniques;
- Space-division multiplexing techniques;
- Cost- and energy-saving techniques;
- Physical layer security in optical networks;
- Integrated sensing and communication in optical fibers.

We look forward to receiving your contributions.

Guest Editors

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Deadline for manuscript submissions

closed (10 December 2025)



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About the Journal

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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