

Special Issue

Enabling Technologies for Optical Communications and Networking

Message from the Guest Editors

Advanced optical communication networks are crucial for meeting the demands of cloud computing, IoT, and high-bandwidth services like 4K/8K streaming and VR. This requires innovative architectures, efficient signal processing, and effective network optimization. Robust control and management schemes are essential for performance monitoring and intelligent operations. Recent advancements in modulation formats, machine learning, and integration with sensing technologies are vital for handling increased data traffic and ensuring secure networking. This Special Issue invites papers on high-capacity optical transmission, high-speed access, performance monitoring, and efficient networking. Original research articles and reviews are welcome.

- Backbone/Core/Access /Indoor /Data center networks;
- Optical transmission systems and subsystems;
- Network architectures, control and management of optical networking;
- Signal processing and impairment mitigation;
- Artificial intelligence for optical communication and networking;
- Optical performance monitoring.

We look forward to receiving your contributions.

Guest Editors

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Deadline for manuscript submissions

closed (15 April 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.

Editor-in-Chief

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