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Recent Advances for Next-Generation High-Speed Optical Networks: Technologies, Components, Systems and Architectures

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Deadline for manuscript
submissions:

closed (20 May 2024)

Message from the Guest Editors

Recently advanced Si- and InP-based photonic platforms have scaled the per lane speed up to 100G and even 200G, facilitating the next generation of Tb/s capacity transceivers. The quest to develop novel active and passive building blocks that will address these future requirements in a low-cost and scalable way continues.

For the deployment of next-generation metro/core networks, the combination of sliceable bandwidth variable transceivers and reconfigurable switching nodes is gaining momentum, allowing the effective allocation of resources and facilitating the programmability of the network.

Authors are invited to submit manuscripts within the scope of the Special Issue including, but not limited to, the following topics:

- High-speed transceivers and switches;
- Photonic Integrated Circuits;
- Optical components, sub-systems, and devices;
- Network architectures;
- Switch architectures;
- Optical Communication Technologies;
- Photonics-Electronics synergies and Co-Packaged Optics;
- Neuromorphic circuits;
- Photonic Sensors for Network Monitoring;
- Quantum transceivers.



mdpi.com/si/190118

Special Issue