# Special Issue

# Coherent Optical Communications

### Message from the Guest Editor

Coherent optical communications for data rates of 100Gbit/s and beyond have been extensively studied, primarily because high sensitivity of coherent receivers could extend the transmission distance. The demonstration of digital carrier phase estimation in coherent receivers has illuminated coherent optical communications. Moreover, since the phase information is preserved after detection, linear equalization methods can be used to compensate linear optical impairments, such as chromatic dispersion and polarization mode dispersion (PMD). This Special Issue on “Coherent Optical Communications” will welcome basic, methodological, and applied cutting-edge research contributions, as regular and review papers, dealing with:

- Fundamentals of coherent transmission technology;
- Multidimensional optimized optical modulation formats;
- Spectrally efficient multiplexing for coherent systems;
- Advances in detection and error correction techniques;
- Digital equalization in coherent optical systems;
- Implementation of high-speed digital coherent transceivers.

### Guest Editor

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### Deadline for manuscript submissions

closed (15 December 2022)

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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

Prof. Dr. Nelson Tansu
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