

Special Issue

Optical Computing: The State of the Art and Future Prospects

Message from the Guest Editor

This Special Issue on 'Optical Computing: The State of the Art and Future Prospects' aims to cover recent advances in the design, implementation, and demonstration of optical computing, highlighting current progress and the latest breakthroughs. These also include photonics and integrated photonics with time-stretching techniques for wide-band data processing, as well as Fourier transform implementation. Keywords

- optical signal processing
- integrated photonics
- coherent photonics
- multiwavelength photonics
- ultrafast processing
- low-power signal processing
- brain-inspired optical computation
- photonic neural networks
- photonic AI accelerators
- reservoir computing
- photonic TPUs
- vector-by-matrix multiplication photonic engine

Guest Editor

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closed (31 January 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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