Optical Computing: The State of the Art and Future Prospects

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

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

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