



Optical Signal Processing: Advances and Perspectives

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Message from the Guest Editors

Dear Colleagues,

The arrival of the big data era has fueled the increasing demand on both high-speed signal transmission and ultrafast signal processing. This Special Issue aims to explore the recent enabling devices and techniques motivating optical signal processing. It will focus on the state-of-the-art advances and future perspectives of optical signal processing.

Topics of interest include, but are not limited to, the following areas:

Mechanisms, materials, devices/platforms, techniques for optical signal processing.

Semiconductor optical amplifiers, highly nonlinear fiber, periodically poled lithium niobate waveguides, photonic integrated circuits, graphene for optical signal processing.

Optical signal processing exploiting the spatial structure of lightwaves.

High-speed electronics assisted advanced digital signal processing (DSP) for optical signal processing.

Various optical signal processing functions, such as wavelength conversion, (de)multiplexing, multicasting, logic gate, computing, switching, true time delay, optical buffer, regeneration, etc.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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