Special Issue

The Interplay between Photonics and Machine Learning

Message from the Guest Editors

The last two decades have seen a rapid surge of interest in photonics and machine learning. On one hand, optical technologies provide a well-established platform for countless applications in our everyday life. On the other hand, artificial intelligence and machine learning have established themselves as excellent tools for discovering, controlling, and interacting with complex systems. It is our pleasure to announce a Special Issue that is entirely focused on their interplay. This Special Issue is dedicated to theoretical or experimental advances bringing together the fields of classical/quantum optical technologies and classical/quantum machine learning. Relevant areas of interest include but are not limited to the following topics:

- Supervised and unsupervised learning for optical applications;
- Reinforcement learning algorithms to control optical systems;
- Design and implementation of intelligent systems using optical technologies;
- Design and implementation of energy-efficient optical platforms for machine learning;
- Machine learning for characterizing and optimizing quantum states of light;
- Quantum machine learning with quantum optics systems.

Guest Editors

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Deadline for manuscript submissions

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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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