



Artificial Intelligence and Machine Learning in Photonics

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Message from the Guest Editors

Photonics invites manuscript submissions in the subject area of “Artificial Intelligence and Machine Learning in Photonics”. The emerging fields of artificial intelligence and machine learning, especially deep learning, have opened up new horizons for extensive technologies coming from the areas of photonic materials, photonic devices, photonic integrated circuits, optical systems, and so on. AI-powered systems show impressive performance and robustness compared with traditional methods. The purpose of this Special Issue of *Photonics* is to highlight the recent progress and trends in developing AI-enhanced photonics technologies. Areas of interest include (but are not limited to):

- Reinforcement learning to control optical systems.
- Artificially engineered photonic structures, materials, and devices.
- Neural networks on photonic integrated platforms and free-space optics.
- Photonics and intelligent sensing.
- High-speed optical communication and computing.
- Super-resolution imaging and 3D imaging.
- Quantum information processing.
- Next-generation ultrafast photonics.

