Special Issue

Machine Learning Applied to Optical Communication Systems

Message from the Guest Editors

This Special Issue aims to dive into the exciting intersection of ML and optical communication systems to foster a deeper understanding of how ML can revolutionize optical communications and how optical communications can facilitate ML processing. We encourage researchers to contribute to this hot topic and present their state-of-the-art research or review articles. Potential directions include but are not limited to ML theory and design, performance evaluation, complexity analysis, hardware implementation, etc., for different types of optical communication systems (to solve the aforementioned problems) shown below:

- ML in short-reach transmission systems (IM/DD or self-coherent);
- ML in long-haul transmission systems (coherent);
- ML in optical access networks (e.g., passive optical networks);
- ML in radio-over-fiber systems;
- ML in optical wireless communications;
- ML in visible-light communication systems;
- ML in underwater optical communications;
- ML in optical vehicle-to-vehicle communication systems;
- ML in laser communications in space;
- ML in chaotic optical communications.

Guest Editors

Dr. Jinlong Wei
Peng Cheng Laboratory, Shenzhen 518055, China
Dr. Zhaopeng Xu
Peng Cheng Laboratory, Shenzhen 518055, China

Deadline for manuscript submissions

closed (10 November 2024)

hv

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/173785

Photonics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
photonics@mdpi.com

mdpi.com/journal/photonics

MDPI

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/journal/photonics

MDPI

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.

Editor-in-Chief

Prof. Dr. Nelson Tansu
School of Electrical and Electronic Engineering (EEE), The University of Adelaide, Adelaide, SA 5005, Australia

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q2 (Instrumentation)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).