Special Issue

Diffractive Optics and Its Emerging Applications

Message from the Guest Editors

Diffraction is a type of fundamental interaction between light and matter. Diffractive optical elements are known to bend and shape light waves in most exotic and unconventional ways by imposing spatial modulation of wave fronts. However, only spatial features with wavelength or sub-wavelength sizes can induce observable diffraction effects, posing potential challenges in the simulation and fabrication of diffractive components.

This Special Issue aims to cover recent progress in diffractive optics technology. Topics of interest include, but are not limited to the following areas:

- Theory and modeling of diffractive optics;
- Optimization algorithms;
- Diffractive + refractive hybrid systems;
- New capabilities and performance enhancements;
- Metasurfaces and metalenses;
- Diffractive optical elements for imaging, sensing, and spectroscopy;
- Applications in AR/VR, LiDAR, machine vision, intraocular lenses, computational imaging, etc.;
- Diffractive neural networks and free-space optical computing;
- Novel fabrication and replication techniques;
- Reconfigurable and programmable photonic devices.

I look forward to receiving your contributions.

Guest Editors

Dr. Peng Wang

Masimo Corporation, 52 Discovery, Irvine, CA 92618, USA

Dr. Apratim Majumder

Department of Electrical and Computer Engineering, University of Utah, 50 Central Campus Dr #2258, Salt Lake City, UT 84112, USA

Deadline for manuscript submissions

15 January 2026

hv

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/216133

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).