

# Special Issue

## Photon-based Particle Acceleration and Manipulation

### Message from the Guest Editors

This Special Issue focuses on the most recent advances in the field of photonic sources and techniques for particle acceleration and manipulation. Topics include but are not limited to the following:

- The development of compact, direct laser accelerators;
- Advanced ultrahigh peak and average power laser systems for wakefield acceleration and X-ray/gamma-ray production;
- Particle production and manipulation using photonic sources;
- Dielectric and on-chip accelerator techniques, including metamaterial photonic circuit development;
- Research of novel techniques to confine light with elemental spatio-temporal resolution;
- Optical timing distribution;
- Applications of photon-based accelerators.

### Guest Editors

Dr. Eduardo Granados  
CERN, 1217 Geneva, Switzerland

Dr. Gianluca Sarri  
Room 01.045, Physics Block 3, Main Site, Queen's University Belfast, Belfast, UK

### Deadline for manuscript submissions

closed (30 June 2020)



## Photonics

an Open Access Journal  
by MDPI

Impact Factor 1.9  
CiteScore 3.5



[mdpi.com/si/37175](https://mdpi.com/si/37175)

*Photonics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[photonics@mdpi.com](mailto:photonics@mdpi.com)

[mdpi.com/journal/  
photonics](https://mdpi.com/journal/photonics)





# Photonics

---

an Open Access Journal  
by MDPI

---

Impact Factor 1.9  
CiteScore 3.5



[mdpi.com/journal/  
photonics](https://mdpi.com/journal/photonics)



## 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 15 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).