

## Special Issue

# Quantum Optics: Science and Applications—2nd Edition

### Message from the Guest Editors

Dear Colleagues, Quantum optics, the study of light and its interaction with matter at the quantum level, is a cornerstone of modern physics and a driving force behind numerous technological advancements. This Special Issue brings together cutting-edge research that spans a wide array of topics within the realm of quantum optics. With contributions from leading experts, we delve into areas such as quantum simulations and calculations, the quantum theory of measurement, the optimization of quantum gates, and quantum feedback operations. This Special Issue on “Quantum Optics” is seeking publications roughly related to the following aspects:

- Experimental demonstrations of the fundamental theoretical progress in quantum optics and the interaction between light and matter;
- Quantum communication based on the quantum properties of light;
- The investigation and simulation of physical phenomena by designing optomechanical systems;
- Quantum metrology with quantum optical systems;
- Quantum precision measurement based on the properties of quantum optics;
- Other applications of quantum optical principles.

### Guest Editors

Dr. Peng Xu

Institute of Quantum Information and Technology, Nanjing University of Posts and Telecommunications, Nanjing, Jiangsu 210003, China

Dr. Hua-Lei Yin

School of Physics, National Laboratory of Solid State Microstructures, Nanjing University, Nanjing 210093, China

### Deadline for manuscript submissions

closed (20 February 2025)



## Photonics

an Open Access Journal  
by MDPI

Impact Factor 1.9  
CiteScore 3.5



[mdpi.com/si/209776](https://mdpi.com/si/209776)

*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 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).