# Special Issue

# Computational Optical Imaging and Its Applications

## Message from the Guest Editors

Computational optical imaging is an indirect method to acquire target information which may be hard to access by direct observation. On the basis of geometrical optics, computational imaging gathers more information as prior knowledge (in different cases this could be, for instance, polarization, phase, sparsity, positivity, etc.), and retrieves seemingly unreachable information by using mathematical analysis and specific signal processing algorithms. This Special Issue aims to highlight the latest advances in computational optical imaging, including novel concepts and interesting practical applications. This Special Issue focuses on (but is not limited to) the following topics:

- Imaging through scattering media;
- Wavefront shaping and transmission matrix;
- Deep imaging inside the tissue;
- Non-line-of-sight imaging;
- Super-resolution imaging;
- Lensless imaging;
- Polarization imaging;
- Wavefront sensing;
- Adaptive optics in microscopy;
- Compressed sensing.

## **Guest Editors**

Prof. Dr. Xiaopeng Shao

- 1. School of Optoelectronic Engineering, Xidian University, Xi'an 710071, China
- 2. Hangzhou Institute of Technology, Xidian University, Hangzhou 311231. China

#### Dr. Tengfei Wu

Laboratoire Kastler-Brossel, Ecole Normale Supérieure, 75005 Paris, France

# Deadline for manuscript submissions

closed (31 July 2023)



# **Photonics**

an Open Access Journal by MDPI

Impact Factor 1.9 CiteScore 3.5



mdpi.com/si/143224

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

mdpi.com/journal/photonics





# **Photonics**

an Open Access Journal by MDPI

Impact Factor 1.9 CiteScore 3.5



# 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 peerreviewed 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).

