Special Issue

Phased Fiber Laser Array and Its Applications

Message from the Guest Editors

Phased Fiber Laser Array (PFLA) is a kind of typical distributed-apertures optical system. By flexibly manipulating the piston and tip/tilt phases of the tiled sub-beams, the PFLA has been gifted the ability of adaptive optical (AO) correction, which holds great potential for applications in laser propagation in atmosphere, free space optical communications (FSOC), optical scanning, and so on. This Special Issue aims to highlight recent advances in principles, system structures, devices, control strategies, coherent combining techniques, and applications of the PFLA. We will consider theoretical, numerical, and experimental papers that cover, but are not limited to, these topics:

- Coherent combining techniques based on PFLA;
- Wavefront manipulation and AO aberration correction based on PFLA;
- Advances in PFLA's structures, fiber devices, phase compensators, detectors, and other components;
- Advances in PFLA's control algorithms, control frameworks, and controller design;
- Progresses in PFLA's novel applications such as laser propagation in atmosphere, FSOC, and electronically controlled optical scanning.

Guest Editors

Prof. Dr. Chao Geng
Institute of Optics and Electronics, Chinese Academy of Sciences, Chengdu 610209, China

Dr. Guan Huang
School of Artificial Intelligence, Optics and Electronics, Northwestern Polytechnical University, Xi'an 710129, China

Deadline for manuscript submissions

closed (31 August 2023)

hv

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/140710

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).