

# Special Issue

## Photonics for Basic and Clinical Brain Research

### Message from the Guest Editors

Dear Colleague, Optical technologies have been indispensable for unlocking the mysteries of the brain since the very inception of modern neuroscience. To help maintain the vital role of photonics for yielding impactful discoveries in neuroscience, we invite you to “shed more light” on the brain by contributing an article to an upcoming special issue of Photonics entitled: **“Photonics for Basic and Clinical Brain Research”**. This special section highlights optical-based modalities applied for understanding healthy and diseased brain physiology and morphology. This special issue will welcome basic, methodological and applied cutting-edge research contributions focusing on:

- Healthy and diseased brain function
- Cerebral hemodynamics and neurovascular coupling
- Cerebral energy metabolism
- Optical neural interfaces
- Optical modulation of neural and microvascular activity
- Neuroimmune interactions
- Instrumentation development for in vivo, in vitro, and ex vivo brain imaging and modulation
- Multimodal and multiscale brain imaging methods
- Validation of methods and tools developed for preclinical and clinical brain research

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### Guest Editors

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### Deadline for manuscript submissions

closed (1 December 2022)



# Photonics

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## 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.

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### Editor-in-Chief

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#### Journal Rank:

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#### 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).