

Special Issue

Advanced Methods in Exploring Light–Matter Interactions and Nonlinear Effects Optics Applications, 2nd Edition

Message from the Guest Editors

The investigation of light–matter interactions and nonlinear optics has been a research hotspot in recent years. This area of research has gained significant momentum owing to its pivotal role in advancing technologies across various fields, such as solid-state laser, nonlinear optical microscopy, high-energy physics, and laser surgery/laser therapy. Its aim is to understand the new application of light–matter interactions and nonlinear optics. The scope of this Special Issue includes the latest advances in experimental, theoretical, and computational aspects of light–matter interactions and nonlinear effects optics. We encourage original research articles and reviews that explore new aspects of these areas, including but not limited to, the following:

- Solid-state laser technology and their applications
- Nonlinear optics and high-power laser interactions
- Nonlinear optical microscopy
- Mid-IR and long-wave IR nonlinear frequency conversion
- AO systems and component technologies
- Machine learning applications in optical systems
- Deep ultraviolet laser
- Computational imaging techniques in nonlinear optics
- Laser surgery/laser therapy

We eagerly anticipate your contributions.

Guest Editors

Prof. Dr. Zhaohong Liu

Prof. Dr. Xiaoming Duan

Dr. Jianming Hu

Dr. Jianchang Zhao

Dr. Jiarui Li

Dr. Shuyi Mi



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

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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.

Editor-in-Chief

Prof. Dr. Nelson Tansu

School of Electrical and Electronic Engineering (EEE), The University of Adelaide, Adelaide, SA 5005, Australia

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