

Special Issue

Ultrafast Lasers and Nonlinear Optics

Message from the Guest Editors

The field of ultrafast lasers has undergone enormous growth in recent years, leading to the development of new scientific and industrial applications. At the same time, the exploration of nonlinear optical phenomena has opened new frontiers in the development of novel light-generating sources, implementing and refining techniques ranging from frequency conversion and mixing to high-harmonic generation. This Special Issue, titled “Ultrafast Lasers and Nonlinear Optics”, seeks to present cutting-edge research and developments in the design, implementation, and application of ultrafast laser systems, as well as the exploration of nonlinear optical effects. We welcome original research articles, reviews, and case studies that contribute to the advancement of this dynamic field. The topics of interest include, but are not limited to, the following:

- Ultrafast solid-state laser design;
- Ultrafast fiber laser design;
- Ultrafast lasers for spectroscopy applications;
- Ultrafast lasers for imaging applications;
- Nonlinear harmonic generation;
- Nonlinear frequency conversion and mixing;
- Novel sources based on nonlinear optics.

Guest Editors

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Deadline for manuscript submissions

closed (15 November 2025)



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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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