Special Issue

Ultrashort Laser Pulses

Message from the Guest Editor

We are pleased to invite you to submit an article to a new Special Issue of *Photonics* entitled 'Ultrashort Laser Pulses'. To study the nonlinear response of matter, light has to be spatially and temporally confined to a small spot to achieve the highest possible intensities. Ultrafast laser pulses, starting from femtosecond oscillators up to amplification to terawatt and petawatt, are a key technology in a wide range of scientific fields, from biomedical imaging, material processing, atomic and molecular physics to laser particle acceleration. This Special Issue invites original research articles and reviews that introduce the recent advances in ultrashort laser pulses. All theoretical, numerical, and experimental papers are accepted. Topics include, but are not limited to, the following:

- Generation, amplification and characterization of ultrashort laser pulses;
- Frequency conversion of ultrashort laser pulses;
- Pulse shaping and adaptive optics;
- Pump–probe spectroscopy;
- High-harmonic generation, surface harmonic generation and attosecond physics;
- Applications of ultrashort laser pulses (e.g., material processing and medical applications).

Guest Editor

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Deadline for manuscript submissions

20 February 2025

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Photonics

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About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

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