

Special Issue

Ultrashort Pulses: Generation and Applications

Message from the Guest Editors

In the last few decades, ultrafast laser technology has undergone great development with an increasing number of applications. Nowadays, the use of such sources is well consolidated in various fields of research that range from ultrafast optics and metrology to microfabrication techniques. The key to the success of ultrafast sources consists of the possibility that they offer to explore light–matter interaction regimes that are inaccessible with other laser sources, enabling access to the ultrashort temporal scale and to extremely high pulse energy. In this Special Issue, we aim to provide an overview of the state of the art in ultrashort pulse generation techniques and their applications to cutting-edge research fields. Topics of interest include, but are not limited to, the following:

- Novel tools and techniques for ultrafast laser development towards the scaling of pulse temporal duration, energy, and spectrum;
- Time-resolved spectroscopy and imaging;
- Ultrashort pulse applications for the manipulation and control of the optical and electronic properties of matter;
- High-order harmonic generation and attosecond science.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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