



Recent Advances in Ultrafast Laser Pulses

Guest Editor:

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Message from the Guest Editor

Ultrafast laser pulses are widely demanded in the biomedical field and for materials processing because of their large peak power and capability for ultrahigh-precision fabrication. The duration of ultrafast laser pulses is typically defined as several tens of femtoseconds to tens of picoseconds. Ultrafast pulses are usually generated by passive mode-locked lasers or optical parametric amplifiers, and can also be obtained by pulse compression using longer pulses. Obtaining stable ultrafast laser pulses and the physical mechanism of pulse formation are very important research issues.

Topics to be discussed in this Special Issue include but are not limited to: ultrafast pulse formation in mode-locked lasers or micro-ring resonant cavities, ultrashort pulse generation with pulse compression techniques, interaction of ultrafast laser pulses with materials, nonlinear interactions between ultrashort pulses, supercontinuum generation, and noise and stability of ultrafast laser pulses.





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Message from the Editor-in-Chief

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