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Ultrashort Ultra-Intense (Petawatt) Laser

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Deadline for manuscript submissions:

closed (15 November 2023)

Message from the Guest Editors

Dear Colleagues,

This Special Issue invites manuscripts that introduce the recent advances in "ultrashort ultra-intense (petawatt) laser". All theoretical, numerical, and experimental papers are accepted. Topics include, but are not limited to, the following:

- Ultra-broadband/ultra-short laser generation and amplification;
- Pulse stretching, compression and measurement;
- Precision dispersion compensation and measurement:
- Temporal contrast enhancement and measurement;
- Beam propagation and wavefront detection and control;
- Beam pointing, smoothing, combination, and focusing;
- Spatio-temporal/spectral coupling analysis, measurement, compensation, and control;
- Plasma methods for peak-power/intensity enhancement;
- Plasma methods for contrast enhancement;
- High average-power laser technology;
- Progress in high-quality optics, e.g., gratings, coatings, crystals, etc.;
- Optical damage mechanism, measurement, and improvement.



