Special Issue

Photon-based Particle Acceleration and Manipulation

Message from the Guest Editors

This Special Issue focuses on the most recent advances in the field of photonic sources and techniques for particle acceleration and manipulation. Topics include but are not limited to the following:

- The development of compact, direct laser accelerators;
- Advanced ultrahigh peak and average power laser systems for wakefield acceleration and X-ray/gamma-ray production;
- Particle production and manipulation using photonic sources;
- Dielectric and on-chip accelerator techniques, including metamaterial photonic circuit development;
- Research of novel techniques to confine light with elemental spatio-temporal resolution;
- Optical timing distribution;
- Applications of photon-based accelerators.

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Deadline for manuscript submissions

closed (30 June 2020)

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About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2024).