

Special Issue

Advances in Laser Manipulation of Neutral Atoms

Message from the Guest Editors

Nowadays, rapid developments in the field of AMO (atomic, molecular, and optical) physics have revolutionized research in many areas, including fundamental physics, precision spectroscopy and measurement, quantum metrology, astronomy and astrophysics, geodesy and hydrology, quantum simulation, and information and computation. This Special Issue focuses on the laser manipulation of neutral atoms, aiming to collect the latest progress in fundamental research and related applications in this area. You are invited to submit your original research papers and review papers to this Special Issue. Technical topics include but are not limited to the following:

- Laser cooling and trapping;
- Quantum gases;
- Laser-based precision spectroscopy;
- Optical tweezers;
- Atoms in an optical cavity;
- Atoms in an optical lattice;
- Atomic frequency standards and clocks;
- Atomic magnetometer and gyroscope;
- Atomic interferometer;
- Quantum simulation and computation with atoms;
- Spin squeezing and quantum entanglement with atoms;
- Search for the new physics of atoms.

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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 14.9 days after
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the second half of 2024).