



Optical Quantum System

Guest Editors:

Prof. Dr. Yanqiang Guo

Key Laboratory of Advanced Transducers and Intelligent Control System, Ministry of Education, College of Physics, Taiyuan University of Technology, Taiyuan 030024, China

Prof. Dr. Yanting Zhao

State Key Laboratory of Quantum Optics and Quantum Optics Devices, Institute of Laser Spectroscopy, Shanxi University, Taiyuan 030006, China

Dr. Xiaomin Guo

Key Laboratory of Advanced Transducers and Intelligent Control System, Ministry of Education, Taiyuan University of Technology, Taiyuan 030024, China

Deadline for manuscript submissions:

15 December 2024



mdpi.com/si/169175

Message from the Guest Editors

Optical quantum systems have attracted considerable attention and become one of the most active research areas in quantum science and technology. Novel advances in optoelectronic materials, integrated technologies, precision measurement, and information science boost the rapid development of optical quantum system. The exciting applications and rich emerging technologies based on optical quantum systems will shape the new area of quantum optics in the future.

This Special Issue aims to present reviews and cutting-edge research articles on the latest advances and potential applications of “Optical Quantum Systems” and related research fields, including but not limited to:

- Quantum precision measurement and sensing;
- Quantum imaging and interference measurement;
- Production and manipulation of ultracold atoms and molecules;
- Precise spectroscopy measurement of atoms and molecules;
- Optical quantum cryptography and integrated quantum devices;
- Quantum simulation and computation with cold particle array;
- Single-atomic and molecular optical and nanophotonic systems;
- Quantum information processing and quantum communication.

Special Issue