Special Issue

Optical Quantum Manipulation of Rydberg Atoms

Message from the Guest Editors

This Special Issue aims present original cutting-edge research articles predicting, understanding, and exploiting new nonlinear and nonclassical features of highly excited Rydberg atoms in various subfields of physics. Researchers are invited to submit their contributions to this Special Issue. It covers a wide range of topics related to the optical quantum manipulation of Rydberg atoms, including but not limited to:

- Quantum entanglement with Rydberg atoms;
- Quantum logic gates with Rydberg atoms;
- Quantum simulation with Rydberg atoms;
- Quantum optics with Rydberg atoms;
- Quantum many-body physics in Rydberg atoms;
- Quantum hybrid system with Rydberg atoms;
- High-precision metrology with Rydberg atoms;
- Novel nonlinear effects in Rydberg atoms;
- Novel nonlocal effects in Rydberg atoms;
- Novel optical devices with Rydberg atom;
- Non-Hermitian optics with Rydberg atoms.

Guest Editors

Prof. Dr. Jin-Hui Wu

School of Physics, Northeast Normal University, Changchun 130024, China

Dr. Dong Yan

School of Science, Changchun University, 6543 Weixing Road, Changchun 130022, China

Deadline for manuscript submissions

closed (10 September 2022)

hv

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/91823

Photonics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
photonics@mdpi.com

mdpi.com/journal/photonics

MDPI

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/journal/photonics

MDPI

About the Journal

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

Editor-in-Chief

Prof. Dr. Nelson Tansu
School of Electrical and Electronic Engineering (EEE), The University of Adelaide, Adelaide, SA 5005, Australia

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q2 (Instrumentation)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).