symmetry

an Open Access Journal by MDPI

IMPACT FACTOR 2.7

CITESCORE 4.9

Symmetry-Related Quantum Phases in Exciton-Polariton Condensates

Guest Editor:

Prof. Dr. Zhaoxin Liang
Department of Physics, Zhejiang Normal University, Jinhua 321004, China

Deadline for manuscript submissions:
31 May 2024

Message from the Guest Editor

At the heart of modern physics is our understanding of the relationship between the phases and the concept of symmetry, which has widespread manifestations and many diverse applications from architecture to mathematics to science.

Exciton-polaritons are hybrid light-matter quasiparticles formed by strongly interacting photons and excitons (electron-hole pairs) in semiconductor microcavities. The exciton-polariton condensate has emerged as a new type of system exhibiting non-equilibrium spontaneous symmetry-broken phase without an immediate counterpart in equilibrium physics.

An outstanding challenge in the context of an exciton-polariton system is how to understand the novel non-equilibrium quantum phases in the light of the concept of symmetry. Aiming at these questions, this Special Issue aims to investigate the mechanism of the symmetry theoretically and experimentally and the non-equilibrium nature determining the novel quantum phases at both mean-field level and beyond field level.

symmetry

IMPACT FACTOR 2.7

CITESCORE 4.9

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Sergei D. Odintsov
ICREA, P. Lluis Companyas 23, 08010 Barcelona and Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.
Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (*General Mathematics*); Q1 (*Physics and Astronomy*); Q1 (*Computer Science*)

Contact Us

Symmetry Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/symmetry
symmetry@mdpi.com
𝕏@Symmetry_MDPI