Special Issue

Symmetry in Integrable Systems: Topics and Advances (Second Edition)

Message from the Guest Editor

Symmetries play a paramount important role in mathematics as well as in physics. Similarity solutions or invariant solutions of a physical problem can be constructed using the Lie group theory. The relationship between symmetries and conservation laws generates the Noether theorem. The related applications of symmetries are to determine higher-order and non-local symmetries, conservation laws, nonlocal conservation laws and specific solutions from reductions. The preceding volume would like to offer an overview of the comprehensive treatments of the Lie groups of transformations, the discovery and use of symmetries to construct solutions, the conservation laws and phenomenological applications thereof.

Potential topics include but are not limited to the following:

- Symmetries;
- Conservation laws:
- Solitons:
- Integrable systems;
- Breathers:
- Rogue waves;
- Hirota bilinear method;
- Darboux transformation;
- Other miscellaneous applications of nonlinear integrable systems.

Guest Editor

Prof. Dr. Bo Ren

Department of Mathematics, Zhejiang University of Technology, Hangzhou 310014, China

Deadline for manuscript submissions

31 August 2026



Symmetry

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 5.3



mdpi.com/si/258457

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

mdpi.com/journal/ symmetry





Symmetry

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 5.3



About the Journal

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.

Editor-in-Chief

Prof. Dr. Sergei Odintsov

- 1. ICREA, 08010 Barcelona, Spain
- 2. Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1 (General Mathematics)

