Special Issue

Symmetry in Lie Groups and Lie Algebras

Message from the Guest Editors

- Symmetry is a fundamental concept in mathematics and physics and is deeply connected to the study of Lie groups and Lie algebras. Lie groups, which are smooth manifolds with group structures, and their associated Lie algebras, which describe infinitesimal symmetries, provide powerful tools for understanding continuous symmetries in geometry, differential equations, quantum mechanics, and theoretical physics.
- This Special Issue aims to explore the interplay between symmetry principles and Lie theoretic methods, highlighting their applications in pure and applied mathematics, mathematical physics, and related disciplines. Topics may include theoretical developments, computational approaches, and applications in fields such as integrable systems, gauge theories, and geometric mechanics.
- We look forward to your submissions.

Guest Editors

Prof. Dr. Liangyun Chen School of Mathematics and Statistics, Northeast Normal University, Changchun 130024, China

Dr. Yao Ma

School of Mathematics and Statistics, Northeast Normal University, Changchun 130024, China

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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

Author Benefits

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