

Special Issue

Geometry of Systems with Symmetry

Message from the Guest Editors

The aim of this Special Issue on the geometry of systems with symmetry is to assemble recent results on the qualitative behavior of the solutions of systems with symmetry. These systems may be Hamiltonian or non-holonomic dynamical systems or quantum mechanical systems which are symmetric and have a notion of symmetry reduction. The reduced spaces may have singularities along with reduced dynamics. An example of such a system is the Routh sphere, which is an axially symmetric sphere, two of whose moments of inertia are equal, but whose center of mass is not at the geometric center of the sphere, which rolls without slipping on the horizontal plane under the influence of a linear gravitational field. Furthermore, the system may have complicated geometric behavior, such as monodromy.

Guest Editors

Dr. Richard Cushman

Department of Mathematics and Statistics, University of Calgary,
Calgary, AB T2N 1N4, Canada

Dr. Larry Bates

Department of Mathematics and Statistics, University of Calgary,
Calgary, AB T2N 1N4, Canada

Deadline for manuscript submissions

closed (30 November 2022)



Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.4



mdpi.com/si/103642

Symmetry

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

[mdpi.com/journal/
symmetry](https://mdpi.com/journal/symmetry)





Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.4



[mdpi.com/journal/
symmetry](https://mdpi.com/journal/symmetry)



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)