

Special Issue

New Developments of Algorithms Optimization with Symmetry/Asymmetry

Message from the Guest Editors

This Special Issue aims to provide a platform for researchers to share their latest findings, methodologies, and innovations in the realm of symmetry-contributed machinery coordination and the design, control, and optimization of driven power electronic systems. We encourage submissions that explore the multidisciplinary aspects of this field, including, but not limited to, the following:

- Symmetrical design principles and methodologies for machinery coordination and integration;
- Symmetry-based approaches for enhancing the performance and efficiency of power electronic systems in machinery;
- Utilization of symmetry properties in advanced control strategies for improved motion coordination and precision;
- Symmetry-driven fault detection, diagnosis, and fault-tolerant control in machinery systems;
- Control and optimization techniques leveraging symmetry to enhance the overall performance and reliability of machinery and power electronic systems;
- Case studies and real-world applications showcasing the practical implementation and benefits of symmetry in machinery coordination and power electronic systems.

Guest Editors

Dr. Fangyuan Li

Dr. Lei Yang

Dr. Yanni Wan

Dr. Yongxiang Zhang

Deadline for manuscript submissions

closed (31 May 2025)



Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.3



mdpi.com/si/204037

Symmetry
Editorial Office
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 5.3



[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)