Special Issue

Symmetries in Mechatronics and Robotics

Message from the Guest Editors

This Special Issue focuses on the pivotal role of symmetry relations in mechatronics and robotics, where symmetry serves as a fundamental principle for design, modeling, control, and optimization. Symmetry relations are deeply embedded in robotic mechanisms, actuation systems, and dynamic behaviors, offering elegant solutions for motion planning, stability analysis, and energy efficiency. In mechatronics, symmetries provide structural balance, enhance fault tolerance, and improve system integration, making them a powerful tool for developing advanced machines and intelligent systems. By uniting theoretical insights with engineering applications, this Special Issue aims to showcase how symmetries drive innovation in mechatronics and robotics, fostering interdisciplinary advances and shaping the future of intelligent machines.

Guest Editors

Dr. Jingyu Zhang
Dr. Qin Fang
Prof. Dr. Wei Tang

Deadline for manuscript submissions

31 August 2026

Symmetry

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 5.3

mdpi.com/si/260206

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

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)

MDPI