



Symmetry in Modeling and Analysis of Dynamic Systems II

Guest Editor:

Prof. Dr. Jan Awrejcewicz

Faculty of Mechanical
Engineering, Lodz University of
Technology, 90-924 Łódź, Poland

Deadline for manuscript
submissions:

closed (15 October 2022)

Message from the Guest Editor

This Special Issue is the continuation of the previous one recently published in Symmetry.

We aim to cover the exchange and dissemination of the concept of symmetry in the modeling and analysis of dynamic features occurring in various branches of science. Since a property of the symmetry of the investigated system implies its conservation quantity like energy, linear/angular momentum, electric charge etc., contributions of research based on the mathematical models of nonlinear partial and ordinary differential equations are especially welcome.

The following topics are also included: (i) discrete vs. continuous symmetry breaking; (ii) solitary waves; (iii) symmetry breaking instability; (iv) symmetry exhibited by MEMS/NEMS; (v) arrays of oscillators subjected to electric/magnetic/thermal fields; (vi) time-symmetry breaking in quantum oscillators; (vii) symmetry breaking of resonances; (viii) symmetry in fluid-structure interaction; (ix) symmetry vs. asymmetry in pattern formation; (x) symmetry in solid-gas phase transition; (xi) continuous vs. discontinuous symmetry; (xii) temporal vs. spatiotemporal symmetry; (xiii) symmetry in transition from regular to chaotic dynamics.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Sergei D. Odintsov

1. Institutió Catalana de Recerca
i Estudis Avançats (ICREA),
Passeig Luis Companys, 23,
08010 Barcelona, Spain
2. Institute of Space Sciences
(ICE-CSIC), C. Can Magrans s/n,
08193 Barcelona, Spain

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.

Author Benefits

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

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

Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (*General Mathematics*); Q1 (*Physics and Astronomy*); Q1 (*Computer Science*)

Contact Us

Symmetry Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/symmetry
symmetry@mdpi.com
X@Symmetry_MDPI