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# Symmetry in Complex Systems

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Deadline for manuscript submissions: closed (31 December 2019)

## Message from the Guest Editors

This Special Issue seeks to fill the gap between the theory of symmetry-based dynamics and its application to model and analyze complex systems. We welcome submissions addressing novel issues, as well as those focused on more specific topics, illustrating the broad impact of symmetrybased dynamics in complex systems.

The main topics of interest include (but are not limited to):

- Complex systems
- Symmetry-breaking
- Complex Networks
- Nonlinear dynamical systems
- Bifurcation theory
- Synchronization
- Entropy and Information Theory
- Fractional calculus and its applications
- Evolutionary computing
- Finance and economy dynamics
- Fractals and chaos
- Biological systems and bioinformatics
- Nonlinear waves and acoustics
- Geosciences
- Astronomy and cosmology
- Nuclear physics





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#### **Editor-in-Chief**

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#### 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.

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