# **Special Issue**

# Symmetry/Asymmetry in Chaos Theory and Application

## Message from the Guest Editors

By collecting research on the theoretical advancements of chaos, computational methods, and chaos-based practical applications, this Special Issue delves into the intricate balance between symmetry and asymmetry within all kinds of chaotic systems. The topics of this Special Issue comprise symmetric or asymmetric chaotic systems, including the corresponding applications such as secure communications, optimization algorithms, neural networks, brain-like computing, and artificial intelligence. By highlighting recent emerging trends of chaos, we aim to deepen our understanding and foster innovation by leveraging chaos theory for real-world applications. Keywords

- symmetric/asymmetric memristive systems
- symmetric/asymmetric neural network
- symmetric/asymmetric neurons
- symmetric/asymmetric/conditional symmetric attractor
- chaotic oscillation
- symmetry broken
- coexisting attractors
- offset boosting
- chaotic optimization algorithm
- chaos application

### **Guest Editors**

Prof. Dr. Chunbiao Li

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### Deadline for manuscript submissions

closed (30 June 2025)



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mdpi.com/si/209467

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## **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

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