Special Issue

Symmetry/Asymmetry Studies in Data Mining & Machine Learning

Message from the Guest Editors

Symmetry and asymmetry are fundamental properties embedded in data structures, learning mechanisms, and algorithmic frameworks. In data mining and machine learning, identifying and utilizing these properties can significantly enhance model robustness, interpretability, and generalization. This Special Issue focuses on methods addressing symmetry and asymmetry in representation learning, pattern recognition, optimization, and intelligent decision-making. We welcome methodological innovations as well as applications in complex domains such as transportation systems, management science, and systems science, where asymmetries in structure, behavior, or information flow are critical to capturing the complexity of real-world dynamics.

Guest Editors

Dr. Jian Zhang

Dr. Tao Wang

Dr. Liang Chen

Dr. Jia He

Deadline for manuscript submissions

31 December 2025

Symmetry

MDPI

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

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