Special Issue

Symmetry in Stochastic Models for Machine Learning Applications: Theoretical Insights and Applications

Message from the Guest Editors

"Symmetry in Stochastic Models for Machine Learning Applications: Theoretical Insights and Applications" focuses on integrating symmetry principles into stochastic modeling to address critical challenges, particularly within mathematical statistics, data mining, machine learning, and deep learning. This Special Issue encompasses a broad spectrum of research, including investigations into the role of symmetry in probability theory, stochastic processes, and statistical distributions. It also emphasizes the application of symmetry in data analysis, specifically focusing on pattern recognition, clustering, and optimization techniques. Furthermore, the Special Issue explores interdisciplinary applications across fields such as artificial intelligence, biomedical data analysis, and dynamic systems. A core theme is developing and evaluating novel methods for incorporating symmetry into stochastic models and assessing their impact on statistical modeling...

Guest Editors

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Deadline for manuscript submissions

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Symmetry

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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.

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