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Unlocking the Power of Probability and Statistics for Symmetry

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Deadline for manuscript submissions: **31 July 2024**



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Message from the Guest Editors

In today's highly data-driven world, the *power* of probability and statistics is becoming increasingly important in many areas of research. Symmetry has a strong affinity to probabilistic methods, as the study of symmetry allows us to identify and quantify patterns in data, and to make generalizations about the underlying mechanisms of nature.

This Special Issue seeks out innovative contributions from various disciplines related to probabilistic methods and their applications to the problems of symmetry. We welcome studies on theoretical developments and practical applications, as well as papers across a variety of topics, including, but not limited to, the following: artificial intelligence, atmospheric science, Bayesian statistics, bioinformatics. climate science. cognitive engineering, epidemiology, neuroscience, machine learning, mathematical physics, multivariate analysis, nonparametric statistics, operations research, probabilistic graphical models, quantitative finance, social sciences, statistical computing and simulation, statistical inference, stochastic modeling, survival analysis, and time series analysis.

We look forward to your submissions.







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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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