Special Issue

Symmetry in Computational Statistics

Message from the Guest Editor

Dictionary definitions of symmetry emphasize the properties of systems that remain unaltered under certain operations and typically identify symmetry with a pleasing aesthetic. Both of these aspects of symmetry are common in mathematical statistics and examples abound: symmetric probability distributions, symmetric or Hermitian variance matrices, idempotence of Fourier transforms, ergodic simulations, recursive functions, and so on. Symmetry remains an important diagnostic for many systems and a valuable conceptual tool to clarify thinking. Symmetry may be exploited in a variety of ways to produce software that is faster, more elegant or efficient, more versatile, or easier to maintain. This Special Edition of *Symmetry* is completely devoted to recent developments in statistics, especially computational mathematics and statistical software, in which symmetrical properties of systems are exploited or highlighted. We encourage relevant contributions from all fields related to computational statistics, as well as encourage authors to consider "statistics" in its broadest sense of manipulation of calculated quantities.

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2022)

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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