Special Issue

Symmetry in Nonequilibrium Statistical Mechanics and Dynamical Systems

Message from the Guest Editor

Recently, different mathematical frameworks coming from nonequilibrium statistical mechanics and dynamical systems theory have been proposed for the modeling of complex emerging phenomena occurring in nature and society. At the base of these phenomena, there is the role of the interactions among the different components composing the complex system. A preliminary phenomenological analysis is thus followed by the modeling of the interaction terms that are derived by the means of the definition of the interaction kernels and parameters on which some symmetry assumptions are made. This Special Issue focuses on the development and application of the recent proposed mathematical frameworks. Specifically, the issue is referred, but is not limited, to physical, biological, economic, social, and engineering systems.

Guest Editor

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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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