Special Issue

Symmetry Breaking in Nonlinear Mechanics

Message from the Guest Editors

- Nonlinearity and complexity are inherent features of various applications and phenomena, and directly influence the performance of systems due to the materials, structures, and dynamics of models. Symmetry, as a fundamental principle, serves as an initial tool for understanding, designing, and controlling systems. In practice, the system may behave differently from the designed pattern due to the initial conditions, boundary conditions or manufacturing processes, leading to a response that depends upon unpredictable deviations from the properties and conditions of the system.
- This Special Issue, entitled "Symmetry Breaking in Nonlinear Mechanics", aims to investigate the intricate interplay between symmetry and asymmetry across a range of applications in engineering science and nonlinear phenomena.
- We invite researchers to present work that explores theoretical, experimental, and computational approaches to investigating the role of nonlinearity and initial sensitivity, as well as work presenting innovative insights and practical applications that leverage symmetry to address the challenges associated with nonlinear and complex systems.

Guest Editors

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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.

Editor-in-Chief

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