

Special Issue

Symmetry and Asymmetry in Dynamics of Mechanical and Structural Engineering

Message from the Guest Editors

We are delighted to announce a Special Issue on "Symmetry and Asymmetry in Dynamics of Mechanical and Structural Engineering" in *Symmetry*. The concepts of symmetry and asymmetry play a key role in the dynamic behavior of engineering systems, influencing vibration, acoustics, control, and energy transmission. From machinery and marine structures to civil infrastructure and metamaterials, the presence—or intentional breaking—of symmetry leads to dynamic phenomena critical to performance, safety, and innovation. Recent advances in design and manufacturing highlight the need to explore these properties under nonlinear, time-varying, or extreme loading. This Special Issue invites original research and reviews on theoretical, computational, and experimental studies related to symmetry-driven dynamics. Topics include, but are not limited to, symmetric and asymmetric vibrations, vibro-acoustic analysis, acoustic and mechanical metamaterials, energy harvesting, structural health monitoring, and applications in mechanical and structural engineering. We welcome novel analytical, numerical, or experimental approaches contributing to this evolving field.

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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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