



Applications Based on Symmetry/Asymmetry in Structural Dynamics

Guest Editor:

Dr. Kamran Foroutan

Industrial Systems Engineering,
University of Regina, Regina, SK,
Canada

Deadline for manuscript
submissions:

15 July 2024

Message from the Guest Editor

Dear Colleagues,

Structural dynamics refers to a type of analysis that covers the behavior of a structure after exposure to dynamic excitations. Symmetry/asymmetry in structural dynamics can be considered among the most important notions in determining the behavior of a physical structure when subjected to force. In this regard, it should be expressed that the investigation of applications based on symmetry/asymmetry in the structural analysis of dynamic structures is very important in engineering applications such as submarines, rocket fuel tanks, satellite support structures, missiles, underwater toroidal pressure hull, and fusion reactor containers. It is therefore no surprise that a large number of researchers have been investigating the structural analysis of these structures under various dynamic excitations for decades.

The aim of the present Special Issue is to investigate the application of symmetry/asymmetry in the dynamic structures, which can be extremely useful in engineering and mechanical applications. For instance, symmetry analysis in structural dynamics can help researchers to identify mode localization and energy transfer mechanisms...





symmetry



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Sergei D. Odintsov

1. Institució Catalana de Recerca i Estudis Avançats (ICREA),
Passeig Luis Companys, 23,
08010 Barcelona, Spain
2. Institute of Space Sciences
(ICE-CSIC), C. Can Magrans s/n,
08193 Barcelona, Spain

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (General Mathematics)

Contact Us

Symmetry Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/symmetry
symmetry@mdpi.com
X@Symmetry_MDPI