Special Issue

Symmetry in Theoretical and Applied Mechanics

Message from the Guest Editors

The main purpose of this Special Issue is to encourage researchers to share the latest developments in the field of theoretical and applied mechanics. New formulations are based on vector and homogeneous transformations, matrix exponentials, tensors, and quaternions. Applied kinematics and elastokinematics involve the use of higher-order accelerations. Advanced dynamics uses D'Alembert, Lagrange, Hamilton, Gibbs–Appell, Gauss, and variational equations from analytical mechanics, as well fundamental theorems in Newtonian mechanics. Dynamics and elastodynamics are also based on symmetry and friction types from physical links. For rapid movements, the dynamics studies are extended to higher-order acceleration energies.

Guest Editors

Prof. Dr. Iuliu Negrean

Department of Mechanical Systems Engineering, Faculty of Machine Building, Technical University of Cluj-Napoca, 400641 Cluj-Napoca, Romania

Dr. Adina Crişan

Department of Mechanical Systems Engineering, Faculty of Machine Building, Technical University of Cluj–Napoca, 400641 Cluj-Napoca, Romania

Deadline for manuscript submissions

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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

Prof. Dr. Sergei Odintsov
1. ICREA, 08010 Barcelona, Spain
2. Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

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