Special Issue

Symmetry in Finite Element Modeling and Mechanics

Message from the Guest Editors

Computational and theoretical techniques in mechanics, such as finite element modeling, have been intensively developed in recent years. The existence of abundant literature shows that such techniques have proven their efficiency, robustness, and ability to handle challenging problems. However, an aspect that has not been so widely considered in the literature is the handling of symmetries in various forms, such as in domain geometry, boundary conditions, model definitions, solutions, etc. Therefore, the present Special Issue aims to emphasize the phenomena that lie at the intersection between the concept of symmetry, modeling, and mechanics. In this Special Issue, we welcome contributions covering a broad range of topics that include—but are not limited to—theoretical and computational mechanics, finite element modeling, damage and fracture mechanics, geometric modeling, numerical methods, continuum mechanics, and boundary conditions.

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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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