

Symmetry and Asymmetry in Experimental and Computational Fluid Dynamics

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Message from the Guest Editors

Dear Colleagues,

A large number of flow phenomena, under the influence of external factors, adopt a symmetric/asymmetric nature. This is often a key feature for the high efficiency of certain processes. For this reason, knowledge of the control of symmetry mechanisms is becoming vitally necessary in practically every field of science and engineering. The existence of difficulties, for example, in the form of irregularities in the implementation of processes or maldistribution of fluids, among others, has its source in the disturbance or lack of the symmetry of one or more factors, parameters, gradients, etc. The challenges of creating or restoring symmetry then become crucial for the efficiency of such processes. On the other hand, in fluid mechanics, we are also familiar with processes in which increasing efficiency requires the opposite operation, that is, counteracting the natural tendency to create symmetry...





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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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