Special Issue

Thermodynamics and Energy Conservation

Message from the Guest Editor

Symmetry is present in many thermodynamic systems and can be applied to concepts such as process reversebility, energy conservation, geometry problems, and molecular symmetry. Several heat and mass transfer problems have symmetric geometries which, in addition to the prescribed boundary conditions, can usually be simplified by assuming symmetries, for example, the invariance of properties and variables, and null gradients along one or more spatial coordinates or over surface planes. In addition, dividing a complex domain into smaller symmetric subdomains is a common practice for the study of complex thermodynamic systems. This Special Issue of *Symmetry* will present research in the areas of thermodynamics, heat and mass transfer and energy conservation where any type of symmetry is present or can be assumed. Investigations on the lack of symmetry in these subjects are also welcomed.

Guest Editor

Prof. Dr. J. M. S. Dias
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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

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