



Symmetry in Classical and Quantum Gravity and Field Theory

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Symmetry is arguably one of the most important features of nature, and the theories that describe it include classical and quantum field theories. Symmetry provides elegant conceptual clarity about the nature and structure of these theories. Its importance, however, is not only limited to the conceptual realm. It also has a crucial role at the computational level. In fact, many of the results that are rather easily computed using symmetry methods are either quite difficult or even impossible to come by without utilizing symmetry.

As it is clear from the title, this Special Issue of *Symmetry* features articles about the physical, mathematical and conceptual role of symmetry in quantum theory and gravity and, in particular, in classical gravity, quantum gravity, high energy physics, black holes and cosmology. We are cordially inviting colleagues, physicists, mathematicians and philosophers of science to submit their works with regard to the above subject to this Special Issue.





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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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