Special Issue

Symmetry in Hadron and Quark Models

Message from the Guest Editor

The symmetry principle is crucial in the development of theories describing the fundamental interactions between elementary particles. The symmetries of the standard model include both gauge symmetries embedded into the model, as well as accidental symmetries, such as baryon and lepton number conservation. Charge, parity, and the combined charge–parity symmetries are known to be conserved by strong interactions and broken by weak ones. The study of CP violation in the heavy-flavor sector is a main area of research for modern collider experiments. Numerous models of beyond-the-standard-model physics are built based on an idea of symmetry. This Special Issue will cover all aspects of symmetry and asymmetry, including the role of symmetry in models of fundamental interactions. We invite researchers to contribute original and high-quality research papers inspiring advances in hadron and quark physics.

Guest Editor

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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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