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Current Issues in Particle Physics

Guest Editor:

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Deadline for manuscript submissions:

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Message from the Guest Editor

Dear Colleagues,

The Standard Model of particle physics has been tested and verified with an astounding level of success for nearly 50 years. Despite a number of predictive successes, it is widely suspected that the Standard Model is a low energy effective theory. Currently there are a number of avenues being pursued in order to determine new physics beyond the Standard Model.

Examples of experimental and observational efforts include searches for exotic decays, new particles, dark matter, and high-precision experiments looking for deviations in observables, and other such anomalies.

Theoretical searches include predictions associated with such topics as unified theories, supersymmetry, dark energy, the origion of baryogenesis, and the application of effective theories.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: grand unified theories, effective theories, neutrinoless double beta decay, exotic decays, quark and neutrino mixing parameters, lattice gauge theory, precision measurements in the electroweak sector, neutrino mass measurements, and experimental searches for rare decays.











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Editor-in-Chief

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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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