



## Hidden Dark Sector in High Energy Physics

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### Message from the Guest Editor

Dear Colleagues,

The Standard Model (SM), while extremely powerful as a description of the strong, electromagnetic and weak interactions, does not provide a natural candidate to explain Dark Matter (DM). Theoretical as well as experimental motivation exists for the existence of a hidden or dark sector of phenomena that couples either weakly or in a special way to SM fields. Hidden sectors near the weak scale are motivated by naturalness, thermal dark matter, electroweak baryogenesis, but also represent a generic expectation for physics Beyond the Standard Model (BSM). If there is such a family of particles and interactions, they may be accessible experimentally at the Large Hadron Collider (LHC) at CERN and at future High Energy Colliders.





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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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