Special Issue

Symmetries and Anomalies in Flavour Physics

Message from the Guest Editors

Flavour physics symmetries provide powerful tools to access new physics beyond the Standard Model. During the past decade, some measurements of B mesons decays have challenged lepton flavour universality (an accidental symmetry of the Standard Model), attracting significant attention as a result. A consistent pattern of anomalies seemed to emerge in neutral–current interactions, which could be explained in models with lepto-quarks or new neutral gauge-bosons. In addition, in charge–current interactions, semileptonic B decays involving leptons in the final state favoured larger rates than those that assume lepton flavour universality.

This Special Issue aims to provide an updated picture of the flavour landscape. We are seeking contributions on the status of flavour anomalies, from an experimental and a theoretical point of view

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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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