Special Issue

Top Quark at the New Physics Frontier

Message from the Guest Editors

The top quark is the most massive elementary particle identified to date: not only does it have a privileged Yukawa coupling to the Higgs boson, but also its mass is significantly higher than that of the Higgs boson. Owing to its large mass, the top quark decays before hadronization, making the study of “bare” quark properties possible in experimental settings. Therefore, top quark physics simultaneously pushes the frontier of quantum chromo-dynamics, electroweak, and flavor physics. Of particular relevance is the fact that, taken together, the top quark and the Higgs boson modify the tree level SM processes through radiative corrections. Such corrections are potentially sensitive to new physics contributions from energy scales larger than that which the current accelerators can achieve. The aim of this Special Issue of *Universe* is to provide a comprehensive review of the current status and prospects of top quark physics at the LHC and possible future colliders. We especially welcome articles that emphasize where the present understanding is incomplete, and suggest new directions for research in this area.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

The multidisciplinary journal *Universe* is aiming to follow and, hopefully, to lead to the largest extent as possible the ever-self renovating threads which weave mathematical theories with our understanding of the magnificent natural world. On behalf of all the distinguished members of the Advisory and Editorial Boards, I extend my welcome to this journal and look forward to hearing from the interested contributors and learning about their valuable research.

Editor-in-Chief

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