

Phenomenology 2018 Symposium



Contribution ID: 531

Type: parallel talk

Doubly-charged scalars at high-energy and high-precision experiments

Tuesday 8 May 2018 17:00 (15 minutes)

Some well-motivated neutrino mass models predict the existence of leptophilic doubly-charged scalars. Their Yukawa couplings can be constrained by low-energy lepton flavor violation and neutrinoless double beta decay searches, as well as by multi-lepton searches at colliders. However, there is still a large chunk of unexplored parameter space, which could be effectively probed by the displaced vertex searches at the LHC and future colliders, as well as the high-precision low-energy experiments like Moller. We show that there exists a novel complementarity between these high-energy and high-precision experiments in probing the origin of neutrino mass.

Summary

Authors: ZHANG, Yongchao; Prof. RAMSEY-MUSOLF, Michael (University of Massachusetts Amherst Center for Fundamental Interactions)

Session Classification: Flavor II