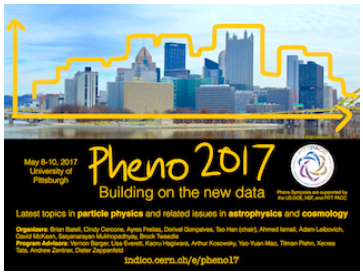

Contribution ID: **275** Type: **parallel talk**

Effective Theories of Flavor and the Non-Universal MSSM

Tuesday 9 May 2017 17:15 (15 minutes)

Flavor symmetries à la Froggatt-Nielsen (FN) provide a compelling way to explain the hierarchies of fermionic masses and mixing angles in the Yukawa sector. In Supersymmetric˜(SUSY) extensions of the Standard Model where the mediation of SUSY breaking occurs at scales larger than the breaking of flavor, this symmetry must be respected not only by the Yukawas of the superpotential, but by the soft-breaking masses and trilinear terms as well. In this work we show that contrary to naive expectations, even starting with completely flavor blind soft-breaking in the full theory at high scales, the low-energy sfermion mass matrices and trilinear terms of the effective theory, obtained upon integrating out the heavy mediator fields, are strongly non-universal. We explore the phenomenology of these SUSY flavor models after the latest LHC searches for new physics.

Summary

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