

Electroweak precision of Higgs sneutrino models

In supersymmetric models the (down-type) higgs has the same quantum numbers as the sneutrinos. This suggests that if supersymmetry is realized at the TeV scale it can take an exciting form where the recently discovered higgs is also the first supersymmetric partner to the Standard Model. This has foundational implications in terms of electroweak precision tests as well as neutrino masses and their interactions. In this poster I present novel bounds on such models and classify their different types. I show that not only can neutrino masses be naturally small, but can also predict a small θ_{13} mixing angle.

Primary author: DROR, Jeff (Cornell University)

Co-authors: BIGGIO, Carla (IFAE); NG, Wee Hao (Cornell University); GROSSMAN, Yuval (Cornell)

Presenter: DROR, Jeff (Cornell University)