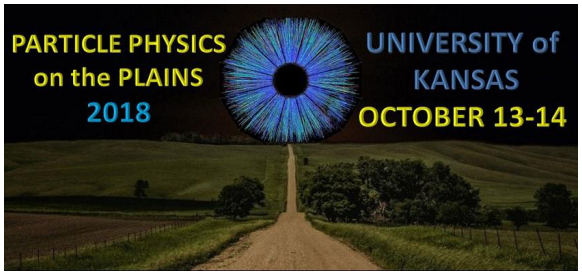

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Two Higgs Doublet Model with New Mass Matrix Ansatz

Sunday 14 October 2018 11:25 (20 minutes)

We show that within the two Higgs doublet model (T2HDM), where both Higgs doublet couple to fermions in a same hierarchical pattern, there can be significant deviations in the Higgs-fermion couplings with respect to their respective standard model values, consistent with flavor constraints and known properties of the Higgs boson. The model is very predictive, implying unavoidable new physics signals like di-boson resonances (hh and Zh) from novel decays of CP– even and CP– odd Higgs fields at the Large Hadron Collider (LHC) and that may lead to an explanation of some intriguing di-boson signatures.

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