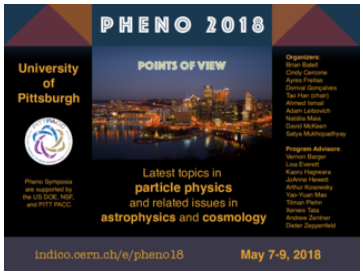

Contribution ID: **592** Type: **parallel talk**

CP Violation 2HDM : from Collider to EDM

Tuesday 8 May 2018 17:15 (15 minutes)

We study the prospective sensitivity to CP-violating Two Higgs Doublet Models from the 14 TeV LHC and future electric dipole moment (EDM) experiments. We concentrate on the search for a resonant heavy Higgs that decays to a Z boson and a SM-like Higgs h, leading to the Z(ll)h(bb̄) final state. The prospective LHC reach is analyzed using the Boosted Decision Tree method. We illustrate the complementarity between the LHC and low energy EDM measurements and study the dependence of the physics reach on the degree of deviation from the alignment limit. In all cases, we find that there exists a large part of parameter space that is sensitive to both EDMs and LHC searches.

Summary

Authors: Mr LI, Haolin (Department of Physics University of Massachusetts Amherst); Dr CHEN, Chien-Yi; Prof. RAMSEY-MUSOLF, Michael

Presenters: Mr LI, Haolin (Department of Physics University of Massachusetts Amherst); LI, Haolin (University of Massachusetts Amherst); LI, Haolin (University of Massachusetts Amherst)

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