

## Exploring the prospect of 95 GeV anomaly in Type-I 2HDM

In this talk, we investigate how the 2-Higgs Doublet Model (2HDM) Type-I can explain some excesses recently seen at the Large Hadron Collider (LHC) in  $\gamma\gamma$  and  $\tau^+\tau^-$  final states in turn matching Large Electron Positron (LEP) data in  $b\bar{b}$  signatures all residing over the 90-100 GeV region. The explanation to such anomalous data is found in the 2HDM Type-I in inverted mass hierarchy in two configurations: i) when the lightest CP-even Higgs state is alone capable of reproducing the excesses; ii) when a combination of such a state and the CP-Odd Higgs boson is able to do so. Finally, we propose some benchmark configurations which are compatible with the above scenarios and bring forth novel collider signatures which can possibly be probed at the LHC.

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