

## A new resolution of flavor problem in 2HDM with U(1) Higgs gauge symmetry

*jeudi 24 juin 2021 11:00 (40 minutes)*

Generic 2HDM's suffer from neutral Higgs mediated FCNC problem. Traditionally this problem is avoided by softly broken  $Z_2$  symmetry that distinguishes  $H_1$  and  $H_2$ . In this talk I implement the softly broken  $Z_2$  symmetry to spontaneously broken U(1) Higgs gauge symmetry. In this setup one often has to add new chiral fermions in order to maintain gauge anomaly cancellation. I discuss extensions of Type I, II, X, Y, and discuss some phenomenology.

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