

Twin Higgs, naturalness and SUSY

Tuesday 18 April 2017 09:46 (23 minutes)

I will analyze the general structure of mirror symmetry breaking in the Twin Higgs scenario. A significant gain in fine tuning can be achieved if the symmetry is broken hardly. I will emphasize that weakly coupled UV completions can naturally accommodate this scenario. I will analyze SUSY UV completions and present a simple Twin SUSY model with a tuning of around 10% and colored superpartners as heavy as 2 TeV. I will also briefly comment on the phenomenology of this SUSY Twin Higgs proposal.

Author: Prof. KATZ , Andrey

Co-authors: Prof. MARIOTTI, Alberto; Dr REDIGOLO, Diego; Dr ZIEGLER, Robert; Prof. POKORSKI, Stefan

Presenter: Prof. KATZ , Andrey

Session Classification: BSM