Non-conventional searches at the LHC (IBS-CTPU Focused workshop)



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Exotic Signals in Twin Higgs Model

Thursday, 17 December 2015 10:30 (1 hour)

Twin Higgs (TH) model gives a naturalness motivation to study the non-colored BSM particles, which usually have decay processes relating to the dark-hadronization and displaced signal. In this talk, I will use the exotic twin-quarks to discuss the search of these decays. The exotic-quarks play a vital role in UV completing the TH model, and their decay products contain both SM particles and twin-hadrons, including twin-glueballs, mesons, and leptons. These twin-objects decay displacedly into SM b-quarks or leptons, and the striking signal allows the reach of twin UV-physics at the LHC and future collider. Interesting complimentarily constraints between collider and astrophysical search will also be discussed.

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Session Classification: Plenary Session