Contribution ID: **89** Type: **not specified**

Heavy Higgs pure resonance dips in MSSM/2HDM

Friday 28 August 2015 15:40 (20 minutes)

We discuss new striking resonance shapes of MSSM heavy Higgs bosons from the resonance-continuum interference with a relative phase: pure resonance dips, nothingness and enhanced pure peaks. We derive conditions for them and devise the modified narrow width approximation(NWA) to work with non-zero imaginary parts. Importantly, ttbar resonance searches at the LHC are crucially impacted. But we will show that the pure A^0 resonance dip is a particularly interesting signal; we can still search for it based on current search techniques (even without any interferences taken into account) and the modified NWA.

ref: 1505.00291

Author: JUNG, Sunghoon (Korea Institute for Advanced Study (KIAS))

Presenter: JUNG, Sunghoon (Korea Institute for Advanced Study (KIAS))

Session Classification: Higgs Expt., Theory and Phenomenology

Track Classification: Higgs Theory and Experiment