



Contribution ID: 879

Type: **Parallel Talk**

Electroweak baryogenesis via top transport

Friday, July 7, 2017 10:15 AM (15 minutes)

We study electroweak baryogenesis driven by up-type heavy quarks in a general two Higgs doublet model with CP invariant Higgs potential. With Higgs sector couplings and an additional top Yukawa coupling ρ_{tt} all of $\mathcal{O}(1)$ in strength, one naturally has sizable CP violation that fuels a cosmic baryon asymmetry. Even if ρ_{tt} vanishes, the flavor violating top-charm coupling ρ_{tc} can still lead to successful baryogenesis. Phenomenological consequences such as electron electric dipole moment, $h \rightarrow \gamma\gamma$, and the interplay with $h \rightarrow \mu\tau$ and $\tau \rightarrow \mu\gamma$, are discussed.

Experimental Collaboration

Presenters: Prof. HOU, George W.S.; HOU, George Wei-Shu (National Taiwan University (TW))

Session Classification: Top and electroweak

Track Classification: Top and Electroweak Physics