

Testing the Higgs triplet model via 125GeV Higgs boson decays with radiative corrections

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The complex Higgs triplet model (CHTM) can explain the neutrino masses via the Type II seesaw mechanism. A feature of CHTM is that the electroweak ρ parameter (ρ) deviates from unity at the tree-level. Thereby, how one renormalize electroweak sector is different from models with $\rho=1$. In this talk, we discuss impact of the radiative corrections to the 125 GeV Higgs boson decays in CHTM. We demonstrate that the CHTM is distinguishable from other simple extended Higgs models by investigating the pattern of deviations from the standard model in the Higgs decays.

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