

Determining The Sign Of κ_Z Using New Resonance Searches.

Tuesday, 29 August 2023 12:10 (15 minutes)

In this talk I will describe a method to determine the relative sign between the hZZ and hWW couplings using the data which are collected by the ATLAS and CMS collaborations. Using the concept of perturbative unitarity we have developed a prescription and reconstruct a phenomenological Lagrangian using FeynRule package. After that we have constructed the UFO file for this simplified model and generate relevant signals using Madgraph event simulators. We have recasted existing direct search bounds from ATLAS and CMS to improve existing constraints on 125 GeV Higgs boson couplings with SM gauge bosons.

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