Contribution ID: **1230** Type: **Parallel session talk**

Analysis of beyond the Standard Model resonances with effective approaches and oblique parameters

Saturday 20 July 2024 09:04 (17 minutes)

Experiments have confirmed the presence of a mass gap between the Standard Model and potential New Physics. Consequently, the exploration of effective field theories to detect signals indicative of Physics Beyond the Standard Model is of great interest. In this study, we examine a non-linear realizations of the electroweak symmetry breaking, wherein the Higgs is a singlet with independent couplings, and Standard Model fields are additionally coupled to heavy bosonic resonances. We present a next-to-leading-order determination of the oblique S and T parameters. Comparing our predictions with experimental values allows us to impose constraints on resonance masses, requiring them to exceed the TeV scale (> 3 TeV). This finding aligns with our earlier analysis, employing a less generalized approach, where we computed these observables.

Alternate track

1. Higgs Physics

I read the instructions above

Yes

Author: ROSELL, Ignasi (Universidad CEU Cardenal Herrera)

Co-authors: PICH, Antonio (IFIC (CSIC –Universitat de València)); SANZ-CILLERO, Juan José (Universidad Complutense de Madrid & IPARCOS)

Presenter: ROSELL, Ignasi (Universidad CEU Cardenal Herrera)

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