Contribution ID: **1220** Type: **Parallel session talk**

Off-shell diboson production at the LHC in the SMEFT at NLO QCD

Saturday 20 July 2024 17:36 (18 minutes)

This study explores fully leptonic WZ and WW production within the SMEFT framework at NLO in QCD, focusing on both CP-even and CP-odd triple gauge coupling dimension-six operators. We investigate the off-shell production processes and contrast our findings with those derived under the narrow-width approximation. Alongside the conventional kinematical observables, we examine polarisation-related observables and angular coefficients. Moreover, we also assess potential SMEFT effects on asymmetry observables. Furthermore, through a sensitivity analysis, we identify critical LHC observables that are particularly sensitive to SMEFT-induced modifications, thereby shedding light on potential avenues for new physics searches in diboson production at the LHC.

Alternate track

1. Beyond the Standard Model

I read the instructions above

Yes

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Session Classification: Top Quark and Electroweak Physics

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