

VBS measurements at CMS and constraints on SMEFT operators

Wednesday 15 June 2022 15:00 (30 minutes)

Vector-boson scattering (VBS) processes probe the non-Abelian gauge structure of the electroweak sector of the Standard Model, and provide a unique sensitivity to potential kinematic anomalies arising from the inclusion of SMEFT operators. In this talk, we report on the most recent VBS measurements performed at CMS with the full LHC Run 2 data, and on the corresponding constraints on the relevant dimension 8 SMEFT operators. In addition, we present a sensitivity study on the constraining power of several VBS analyses to anomalous effects arising from dimension-6 SMEFT operators and discuss the prospects of this measurement at the upcoming LHC runs.

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