

EFT dimension-6 and dimension-8 study with VBS events at CMS

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A first measurement is presented of the cross-section for the scattering of same-sign W boson pairs via the detection of a τ lepton. The data from proton-proton collisions at the center-of-mass energy of 13 TeV were collected by the CMS detector at the LHC, corresponding to an integrated luminosity of 138 fb⁻¹. Events containing two jets with large pseudorapidity and large invariant mass, one τ lepton, one light lepton (e or μ), and significant missing transverse momentum were selected. In addition, a search is presented for the indirect effects of processes beyond the standard model via the effective field theory framework, in terms of dimension-6 and dimension-8 operators.

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