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Vector boson scattering results in CMS

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Vector boson scattering is a key production process to probe the electroweak symmetry breaking of the standard model, since it involves both self-couplings of vector bosons and coupling with the Higgs boson. If the Higgs mechanism is not the sole source of electroweak symmetry breaking, the scattering amplitude deviates from the standard model prediction at high scattering energy. Moreover, deviations may be detectable even if a new physics scale is higher than the reach of direct searches. Latest measurements of production cross sections of vector boson pairs in association with two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV at the LHC are reported using a data set recorded by the CMS detector. Differential fiducial cross sections as functions of several quantities are also measured.

In-person participation

Yes

Primary author: HADDAD, Yacine (Northeastern University (US))**Presenter:** HADDAD, Yacine (Northeastern University (US))**Session Classification:** Top quark and EW Physics**Track Classification:** Top quark and EW Physics