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Observation and measurements of vector-boson scattering at the ATLAS detector

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The scattering of electroweak bosons tests the gauge structure of the Standard Model and is sensitive to anomalous quartic gauge couplings. In this talk, we present recent results on vector-boson scattering from the ATLAS experiment using proton-proton collisions at 13 TeV of center-of-mass energy at LHC. This includes the observation of ZZ, WZ, and same-sign-WW production via vector-boson scattering along with a measurement of VV production in semileptonic final states. The results can be used to constrain new physics that manifests as anomalous electroweak-boson self interactions. Finally, Predicted cross sections for electroweak scattering of two same-sign W bosons in association with two jets are compared for a number of Monte Carlo configurations.

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