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Recent observation and measurements of vector-boson fusion and scattering with ATLAS

Thursday, 15 April 2021 09:12 (15 minutes)

The scattering of electroweak bosons tests the gauge structure of the Standard Model and is sensitive to anomalous weak boson self interactions. In this talk, we present recent results on weak-boson fusion and weak-boson scattering from the ATLAS experiment using proton-proton collisions at √s=13 TeV. We present the first observation of ZZ production via weak-boson scattering as well as evidence for Z⊠ production, in final states where the Z boson decays leptonically. This is augmented by a measurement of VV production via weak-boson scattering in semileptonic decay channels. Measurements of Vjj final states produced via weak-boson fusion will also be presented. If available, new results on weak-boson production will also be shown.

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