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Measurement of Standard Model ZZ production at ATLAS JOSH

KUNKLE, University of Pennsylvania, ATLAS COLLABORATION — The status of the first measurement by ATLAS of Standard Model ZZ production decaying to two leptons and two neutrinos will be presented. Using LHC data at $\sqrt{s}=7$ TeV taken during 2011, the expected significance of this signal is nearly 5σ . The intent is to measure the cross section of this process and to put limits on anomalous triple gauge couplings. This channel is an important background to Higgs searches with a heavy Higgs boson decaying to two Z bosons. It is also an irreducible background to associated production of a Higgs boson with a Z boson where the Higgs decays to invisible particles.

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