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WITHDRAWN - Fiducial Differential Cross Section Measurements in the HZZ4l Channel with the ATLAS Detector

Tuesday 4 June 2019 17:45 (2 minutes)

Detailed tests of the Standard Model nature of the Higgs boson are a key component of the physics program at the ATLAS experiment. An overview of inclusive and fiducial differential cross section measurements in the HZZ4l channel will be presented. Higgs boson candidate events are selected by identifying two pairs of same-flavour oppositely-charged leptons (electrons or muons). Total cross sections are measured both inclusively and separately in each final state. Differential cross sections are measured inclusively for observables which are sensitive to the production and decay of the Higgs boson, including the transverse momentum of the four-lepton system and the multiplicity of the associated jets. Measurements are performed in a fiducial phase space and are corrected for detector effects. Past results and future prospects of this measurement will be discussed.

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