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Measurements of the Higgs Boson fiducial and differential cross sections in the 4l decay channel at 13 TeV with the ATLAS detector

A measurement of the inclusive and differential fiducial cross section of Higgs-boson production in the four lepton (electrons or muons) final state

is presented. The data sample, collected by the ATLAS experiment in 2015 and 2016, corresponds to an integrated luminosity of 36.1 ${\rm fb}^{-1}$ of proton-proton collisions produced at the Large Hadron Collider at a

centre-of-mass energy of 13 TeV. The inclusive fiducial cross section has been measured to be agreement with the Standard Model prediction. Moreover, several differential fiducial cross sections are measured for observables sensitive to the Higgs-boson production and decay. Good agreement is found between data and Standard Model predictions.

Experimental Collaboration

ATLAS

Author: ROZEN, Yoram (Israel Institute of Technology (IL))

Presenter: SALVUCCI, Antonio (The Hong Kong Universities Cluster (HK))

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