SAIP2014

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Measurement of Higgs production in association with high PT jets with the ATLAS detector

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Abstract :

The first measuremet of the differential cross section of the Higgs boson, performed in the diphoton decay channel will be presented. The dataset used corresponds to 20.3 fb-1 of proton-proton collisions at the center of mass of 8 TeV, produced by the LHC and collected by the ATLAS detector in 2012. With its high signal selection efficiency the diphoton decay channel is well suited to probe the underlying kinematic properties of the signal production and decay. Measurements for several diphoton and jet distributions are made for isolated photons within the geometric acceptance of the detector and they are corrected for experimental acceptance and resolution. Results are compared to theoretical predictions at the particle level. Prospects for Run 2 will be discussed

Award :

No

Level :

PhD

Paper :

Yes

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