



Fiducial and differential cross sections for Higgs boson production in the diphoton decay channel at $\sqrt{s} = 13$ TeV with the ATLAS experiment.

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In this poster measurements of fiducial and differential cross sections are presented for Higgs boson production in the diphoton channel at a centre-of-mass energy of $\sqrt{s} = 13$. Diphoton candidate events from proton-proton collisions recorded in 2015 and 2016 are analyzed by a fit to the diphoton invariant mass spectrum. The extracted signal yields are corrected for effects of detector inefficiency and resolution and compared to state-of-the-art theoretical predictions. Differential cross sections are also presented, as a function of variables related to the photon kinematics and the jet activity produced in the Higgs boson events.

Primary author: ROZEN, Yoram (Israel Institute of Technology (IL))

Presenter: PENG, Cong (Chinese Academy of Sciences (CN))

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