



ID de Contribution: 207

Type: YSF (Young Scientists Forum)

Measurement of fiducial, differential and production cross sections in the $H \rightarrow \gamma\gamma$ decay channel with ATLAS

lundi 12 mars 2018 20:04 (5 minutes)

The measurements of differential (in the fiducial phase space) and production mode cross sections are presented in the $H \rightarrow \gamma\gamma$ decay channel using 36 fb^{-1} data collected by the ATLAS detector at a centre of mass energy of $\sqrt{s} = 13 \text{ TeV}$. These characterise $pp \rightarrow H \rightarrow \gamma\gamma$ processes in a variety of ways; production mode cross sections directly test the compatibility of the data with the Standard Model (SM), whereas fiducial measurements make minimal SM assumptions and can thus be re-interpreted in order to constrain new physics models. The sensitivity is approximately double that of the $\sqrt{s} = 8 \text{ TeV}$ dataset. Finally, 5 differential distributions are used to constrain several Wilson coefficients using the effective field theory approach.

Summary

Auteur principal: M. MENARY, Stephen (University of Manchester)

Orateur: M. MENARY, Stephen (University of Manchester)

Classification de Session: YSF1