



Contribution ID: 301

Type: **Poster Presentation**

## First measurement of isolated-photon plus jet production in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector

The dynamics of isolated-photon plus jet production in pp collisions at  $\sqrt{s} = 13$  TeV were studied with the ATLAS detector at the LHC using a dataset with an integrated luminosity of 3.2 /fb. The photons were reconstructed for photon transverse energies larger than 125 GeV. The jets were identified using the anti-kt algorithm with radius parameter  $R=0.4$  and selected in the rapidity range  $|y|<2.37$  for transverse momenta  $p_T > 100$  GeV.

Measurements of isolated-photon plus jet cross sections are presented as functions of the photon transverse energy, the jet transverse momentum, the photon-jet invariant mass and the scattering angle in the photon-jet centre-of-mass system.

The leading-logarithm parton-shower predictions from SHERPA and PYTHIA as well as next-to-leading-order QCD calculations from JETPHOX are compared to the measurements.

### Experimental Collaboration

ATLAS

**Presenter:** CALLEA, Giuseppe (Universita della Calabria (IT))

**Session Classification:** Poster session

**Track Classification:** QCD and Hadronic Physics