

## Jet performance and inclusive jet cross section measurement in ATLAS

Proton-proton collisions at the LHC have provided data to probe quantum chromodynamics (QCD) at distances never reached before with the 7 TeV center-of-mass data taken by the ATLAS detector.

While precision tests of strong interactions are interesting in their own right, QCD also provides one of the main backgrounds to many New Physics measurements; furthermore, it is also through tests of QCD that New Physics may be discovered.

Hadronic jets are a fundamental ingredient for precision tests of QCD: understanding and measuring their performance is crucial in the LHC environment. A correct estimate of the energy of jets (jet energy scale) is input to many physics analyses, and the uncertainty on this estimate is the dominant experimental systematic for many QCD measurements. This poster presents the measurement of the inclusive jet cross section using data collected by the ATLAS detector, with a particular focus on the reconstruction and calibration techniques used for jets in this measurement and on the estimate of the systematic uncertainties on their energy scale.

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