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## Measurement of the jet production cross section at 7 TeV

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Measurements of jet production are sensitive to the strong coupling constant, next-to-leading order perturbative calculations and parton distribution functions. The measurements are obtained using data corresponding to an integrated luminosity of  $4.5 \text{ fb}^{-1}$ , recorded by the ATLAS detector in 2011. Cross sections are measured up to 5 TeV dijet mass using jets reconstructed with the anti-kt algorithm for values of the jet radius parameter of 0.4 and 0.6. The quantitative comparison of data and theoretical predictions obtained using various parameterizations of the parton distribution functions is performed using a frequentist method.

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