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## Properties of the jet production in pp collisions measured with the ATLAS detector

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Several aspects of the jet production in pp collisions have been measured by the ATLAS collaboration. Measurements of multijet systems, including heavy flavour production, with or without a veto on additional jets, probe QCD radiation effects. A measurement of the inclusive multiplicity ratio is sensitive to the strong coupling constant  $\alpha_S$  and has reduced sensitivity to the uncertainties due to parton distribution functions. Measurements of jets containing charm and beauty hadrons are also presented. Measurement of splitting scales in the kt clustering algorithm using jets from  $W$ +jet events provide a way to investigate jet clustering at different resolution scales. These measurements constitute precision tests of QCD in a new energy regime, overall a good agreement with QCD expectations is observed.

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