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## Latest jet cross-section measurements by ATLAS

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Precise measurements of jet cross-sections are crucial in understanding physics at hadron colliders. They probe quantum chromodynamics (QCD), where jets are interpreted as resulting from the fragmentation of quarks and gluons produced in a short-distance scattering process. Jet cross-sections provide valuable information about the strong coupling constant,  $\alpha_s$ , and the structure of the proton. In addition, final states with only jets represent a background to many other processes at hadron colliders. The predictive power of fixed-order QCD calculations is therefore relevant in many searches for new physics. The most recent QCD results from the ATLAS Collaboration in proton-proton collisions involving jets in the final state will be summarized. Among others, the measurement of key differential distributions related to gluon splitting to b-quark pairs is presented, along with other measurements that probe a wide range of QCD phenomena and the structure of a jet.

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