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Measurements with ATLAS detector of jets containing charm and bottom quarks

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The inclusive and dijet production cross-sections have been measured for jets containing b-hadrons (b-jets) in proton-proton collisions at a centre-of-mass energy of sqrt(s) = 7 TeV.
The b-jets are identified using either a lifetime-based method, where secondary decay vertices of b-hadrons in jets are reconstructed using information from the tracking detectors, or a muon-based method where the presence of a muon is used to identify semileptonic decays of b-hadrons inside jets.
The inclusive b-jet cross-section is measured as a function of transverse momentum.
The bbbar-dijet cross-section is measured as a function of the dijet invariant mass, the azimuthal angle difference between the two jets, and the angular variable chi in two dijet mass regions.
The results are compared to next-to-leading-order QCD predictions. D+/- *meson production in jets is also measured. D*+/- mesons found in jets are fully reconstructed in the decay chain:
D*+ -> D0pi+, D0 -> K-pi+, and its charge conjugate.

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