



Measurement of the inclusive production cross sections for forward jets and forward - central dijets in CMS at $\sqrt{s} = 7$ TeV

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We present the measurements of inclusive production cross sections for forward jets, as well for jets in dijet events with at least one jet emitted at central and the other at forward pseudorapidities in proton-proton collisions at $\sqrt{s} = 7$ TeV. The measurements were performed in the range of transverse momenta $p_T = 35 - 150$ GeV/c within pseudorapidities $3.2 < |\eta| < 4.7$, and central jets within the $|\eta| < 2.8$ range. The differential cross sections $d^2\sigma/dp_T d\eta$ are compared to predictions from three approaches in perturbative quantum chromodynamics: (i) next- to-leading-order calculations obtained with and without matching to parton-shower Monte Carlo simulations, (ii) PYTHIA and HERWIG parton-shower event generators with different tunes of parameters, and (iii) CASCADE and HEJ models, including different non-collinear corrections to standard single-parton radiation.

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