

Charged-particle transverse momentum spectra in proton-proton collisions at $\sqrt{s} = 0.9$ TeV, 2.76 TeV and 7 TeV measured with ALICE at the LHC

Inclusive charged-particle transverse momentum distributions have been measured in proton-proton collisions at $\sqrt{s} = 0.9, 2.76$ and 7 TeV with the ALICE detector at the LHC. The measurements in the central pseudorapidity region $|\eta| < 0.8$ cover a transverse momentum range of $0.15 < p_T < 50$ GeV/c. The evolution of the transverse momentum spectra as a function of the collision energy and the charged particle multiplicity is presented. The spectra are compared to measurements from other experiments, to predictions from next-to-leading order QCD calculations and to simulations with the Monte Carlo event generators PYTHIA and PHOJET. The results can be used to tune theoretical models and serve as the baseline for the comparison with particle production in heavy-ion collisions.

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