

Correlation Between Mean p_T and Charged Particle Multiplicity in pp Collisions at $\sqrt{s} = 0.9, 2.76$ and 7 TeV with ALICE

The study of transverse momentum distributions of charged particles in pp collisions at the LHC provides information about both soft and hard contributions to particle production. Charged particle transverse momentum distributions in pp collisions at 0.9, 2.76 and 7 TeV have been measured at mid-rapidity ($|\eta| < 0.8$) by ALICE. We present the energy dependence of the inclusive average transverse momentum $\langle p_T \rangle$ and the correlation between $\langle p_T \rangle$ and the charged particle multiplicity. The results are compared to simulations with Monte Carlo event generators. In this poster, details of the extrapolation to $p_T = 0$ as well as the procedure to correct the measured multiplicity to a true multiplicity are presented. Moreover, possible energy-independent scaling properties of the correlation between $\langle p_T \rangle$ and multiplicity are discussed.

Primary author: LUETTIG, Philipp (CERN)

Presenter: LUETTIG, Philipp (CERN)

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