Transverse Momentum Spectra of Unidentified Charged Particles in pp Collisions at the ALICE experiment

The ALICE experiment at the CERN-LHC has accumulated data on pp and Pb–Pb collisions in the past two years. Designed for exploring the properties of hot and dense matter formed in heavy-ion collisions, the ALICE Time Projection Chamber (TPC) has the capability to measure the transverse momentum (p_T) of charged particles in a broad p_T range for $p_T > 150$ MeV/c. \backslash

The transverse momentum spectra of unidentified charged particles for pp collisions at $\sqrt{s} = 0.9$, 2.76 and 7 TeV are presented. The extraction of a pp baseline for the calculation of the nuclear modification factor R_{AA} at $\sqrt{s_{NN}} = 2.76$ TeV is discussed and compared to alternative approaches to construct a baseline. In addition, the dependence of the average transverse momentum of these spectra on center-of-mass energy is reviewed and compared to measurements by other experiments.

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