

Pt spectra of hadrons identified with the ALICE Inner Tracking System

The Inner Tracking System is the ALICE detector closest to the beam axis. It is composed of six layers of silicon detectors: two innermost layers of Silicon Pixel Detectors (SPD), two intermediate layers of Silicon Drift Detectors (SDD) and two outermost layers of Silicon Strip Detectors (SSD). The ITS can be used as a standalone tracker in order to recover tracks that are not reconstructed by the Time Projection Chamber (TPC) and to reconstruct low momentum particles with p_t down to 100-MeV/c. Particle identification in the ITS is performed by measuring the energy loss signal in the SDD and SSD layers. The ITS allows to extend the charged particle identification capability in the ALICE central rapidity region at low p_t : it is possible to separate π/K in the range $100 \text{ MeV}/c < p_t < 500 \text{ MeV}/c$ and K/p in the range $200 \text{ MeV}/c < p_t < 800 \text{ MeV}/c$. The identification of hadron in the ITS will be discussed in detail, different methods used to extract the p_t spectra of π , K and p will also be described.

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