

Charged pion spectra at high p_T measured via dE/dx with the ALICE TPC

The TPC is the main tracking detector in the central barrel ($|\eta| \leq 1$) of the ALICE experiment. In addition to tracking it provides particle identification through the measurement of the specific energy loss, dE/dx , which depends only on $\beta\gamma = p/m$. At low momentum, $p < 1\text{GeV}/c$, pions, kaons, and protons, can be cleanly separated in different momentum intervals. At high momentum, $p > 3\text{GeV}/c$, the yield of pions, kaons, and protons can be extracted statistically on the relativistic rise.

In this poster I will show results from pp @ 2.76 TeV and Pb-Pb @ 2.76 TeV/nucleon for $3.0 < p_T < 20.0$ for charged pions. By combining the results from this analysis with results from the analysis of unidentified charged particles, the charged pion spectra and the charged pion R_{AA} is determined.

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Track Classification: Jets