

High p_T identified particle production in ALICE

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The production of particles at high p_T in pp collisions can be described using perturbative QCD. In Pb-Pb collisions the observed yield of high p_T particles is much smaller than expected from binary scaling because of strong final state interactions with the surrounding dense medium. Experiments at RHIC have shown that this modification is very different for mesons and baryons.

In the ALICE experiment it is possible to identify particles with very high transverse momentum, $p_T \gg 3$ -GeV/c. Charged pions and kaons+protons (together) can be identified from the dE/dx , measured in the Time Projection Chamber, thanks to the separation on the relativistic rise. K_s^0 and Λ can be identified from their V0 weak decay topology.

In this talk preliminary results from measurements in pp at $\sqrt{s} = 2.76$ -TeV and Pb-Pb at $\sqrt{s_{NN}} = 2.76$ -TeV for $3.0 < p_T < 20.0$ -GeV/c will be shown. The evolution of R_{AA} for identified particles with centrality and p_T will be discussed and compared to unidentified charged particles, theoretical predictions, and measurements at RHIC.

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