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Production of light flavor hadrons at intermediate and high $p_{\rm T}$ measured with the ALICE detector

Monday, 19 May 2014 16:30 (20 minutes)

Light flavor transverse momentum spectra at intermediate and high $p_{\rm T}$ are important as baseline perturbative QCD measurements in pp, evaluating initial state effects (nuclear p.d.f.'s) in p-Pb, and for investigating the suppression in Pb-Pb collisions. In this talk results for all these collisional systems will be presented.

The new measurement of $R_{\rm pPb}$ for unidentified charged particles extended up to 50 GeV/c will be presented together with the construction of the reference pp spectrum at $\sqrt{s} = 5.02$ TeV. The final results on the production of charged pions, kaons, and protons up to $p_{\rm T} = 20$ GeV/c in pp and Pb-Pb collisions will also be reported and compared to recent QCD and phenomenological calculations. The impact of these results on our interpretation of jet quenching in Pb-Pb through $R_{\rm AA}$ and the question of whether the proton-to-pion ratio can still be considered to be anomalous will be discussed.

On behalf of collaboration:

ALICE

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