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Production of $\pi/K/p$ in pp and $Pb-Pb$ collisions measured with ALICE.

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The ALICE detector features multiple particle identification systems including: the Time Projection Chamber (TPC), the Inner Tracking System (ITS), a time-of-flight system (TOF) and a Ring-imaging Cherenkov detector (HMPID).

This combination of detectors along with the excellent tracking capabilities of ALICE provides us with the opportunity to measure the production of $\pi/K/p$ over a broad transverse momentum (p_T) range, from 100 MeV/c up to 20 GeV/c.

Particle identification at low p_T (below 1 GeV/c) is performed using the energy loss of particles in the ITS and the TPC. The TOF contributes to the identification for the p_T range between 0.5 GeV/c and 3-5 GeV/c (depending on the particle type and the colliding system). For high p_T (up to 20 GeV/c), particles are identified with the HMPID or the relativistic rise of the energy loss in the TPC.

In this talk an overview of the ALICE results on the production of $\pi/K/p$ in pp collisions at $\sqrt{s} = 0.9, 2.76$ and 7 TeV, and $Pb-Pb$ collisions at $\sqrt{s_{NN}} = 2.76$ TeV will be presented. The ALICE results from pp collisions provide constraints for the commonly used event generators and are the baseline for the $Pb-Pb$ measurement. The $Pb-Pb$ results will be compared to statistical models and hydrodynamic calculations at low p_T and recombination models at intermediate p_T . The high p_T region provides constraints on models describing parton energy loss in the hot and dense medium.

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