

Multiplicity dependence of identified hadron production in pp collisions at $\sqrt{s} = 7$ TeV in ALICE at LHC

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Abstract

Ultra-relativistic heavy ion collisions are used to create and study properties of strongly interacting hot and dense matter called Quark Gluon Plasma (QGP). The system produced in such collisions evolves through different stages, with the early partonic stage followed by hadronization. Resonances are good candidates to probe different stages of the system evolution.

Recent measurements in proton-lead (p-Pb) and high-multiplicity proton-proton (pp) collisions at LHC show some features that are similar to those observed in Pb-Pb collisions. In the p_T -differential baryon to meson ratios, an enhancement of baryon production at intermediate p_T is observed in high-multiplicity pp collisions. We report the production of K^{*0} , ϕ , strange and multi-strange hadrons at mid rapidity as a function of event multiplicity in pp collisions at $\sqrt{s} = 7$ TeV using the ALICE detector.