

Neutral pion and η meson production in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with ALICE at the LHC

The measurement of particle production in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV allows the study of fundamental QCD properties at low parton momentum fraction x and high gluon densities.

Moreover, it is important as reference for heavy-ion collisions. It can show whether the initial state of the colliding nuclei plays a role in the observed suppression of hadron production at high p_T in Pb-Pb collisions. In addition, the measurement of neutral mesons is crucial for the background determination of other analyses like the direct photon measurement.

As ALICE combines the photon reconstruction via the Photon Conversion Method and the two calorimeters (PHOS and EMCal) π^0 and η mesons can be measured in a broad p_T range in their two γ and for the π^0 also in the γ -Dalitz decay channel.

This poster will show the combined ALICE π^0 and η invariant differential yields and the η/π^0 ratio.

Furthermore, also the π^0 p_T -differential nuclear modification factor R_{pA} will be presented.

Preferred Track

Jets and High p_T Hadrons

Collaboration

ALICE

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