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

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Content

Measurements of hadron production in p-Pb collisions serve as reference to help disectangle initial and final-state effects for the hadron suppresion observed at intermediate p_T in Pb-Pb collisions. Moreover, the measurement of neutral mesons (π^0 and η) is important to estimate the background in the direct photon analysis. ALICE has measured π^0 and η mesons via their two photon decay channel $\pi^0 \to \gamma\gamma$ and $\eta \to \gamma\gamma$ and in the case of π^0 also via its Dalitz decay channel $\pi^0 \to \gamma^*\gamma \to e^+e^-\gamma$. Photons were measured by electromagnetic calorimenters, PHOS and EMCal, and by their conversions into e^+e^- in the central barrel using the TPC and ITS detectors. In this poster, the measurement of the π^0 and η mesons will be presented and compared to theoretical model calculations. The η to π^0 ratio and the nuclear modification factor R_{p-Pb} will also be presented.

Session

Poster sessions

Primary author(s) : Dr. GONZÁLEZ ZAMORA, Pedro (FCFM-BUAP)

Presenter(s) : GONZALEZ ZAMORA, Pedro (ACORDE)

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