

Hyperon polarization along the beam direction in pPb collision at CMS

The observation of hyperon polarization along beam direction (P_z) in nucleus-nucleus collisions has opened a new way to study the complex vortical structures of the QGP. With the high-statistics data collected by the CMS experiment, we present the first P_z results for Λ and $\bar{\Lambda}$ particles in pPb collision at $\sqrt{s_{NN}} = 8.16$ TeV over a wide transverse momentum and multiplicity range. The measured P_z signal can shed light on the origin of collectivity in small collision systems as well as the mechanism of spin polarization in heavy ion collisions.

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