## The 8th International Conference on Chirality, Vorticity and Magnetic Field in Quantum Matter



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## Hyperon polarization along the beam direction in pPb collision at CMS (online)

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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  $\Lambda$  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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