Quark Matter 2018



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Long-range azimuthal anisotropy of charm and strange hadrons in pPb collisions with the CMS detector

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Measurements of long-range azimuthal correlations involving heavy-flavor quarks provide a powerful tool in unraveling the origin of collectivity observed in small collision systems. With data collected by the CMS experiment at the LHC in 2016, elliptic azimuthal anisotropy (v_2) of prompt D^0 meson at mid-rapidity in 8.16 TeV pPb collisions is presented from long-range two-particle correlations over a wide transverse momentum range. Results for light-flavor strange hadrons, including K_S^0 , Λ , Ξ^- and Ω^- are also presented in both pPb and PbPb collisions. Divided by the number of constituent quarks (NCQ), the NCQ scaling relation of v_2 among heavy and various light flavor species is tested. The result reveals key insights to heavy quark collectivity developed in high-multiplicity pPb systems.

Content type

Experiment

Collaboration

CMS

Centralised submission by Collaboration

Presenter name already specified

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