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Charm production in pPb collisions at LHCb

Charm quarks are excellent probes of the hot and dense state of quark-gluon plasma (QGP) which is created in high energy heavy-ion collisions. LHCb is a charm factory due to geometry acceptance and excellent vertex resolution, precise particle identification, efficient trigger system...

In this presentation, we will talk latest measurements of charm production in pPb collisions collected by the LHCb detector at $\sqrt{s_{NN}}=8.16\text{TeV}$. A suppression of prompt D^0 production in the forward rapidity region relative to the backward rapidity is observed, which can be used to constrain nuclear PDF. Double parton scattering process enhancement was confirmed in charm pair measurement. First measurement of prompt c_1 and c_2 production and cross-section ratio in pPb collisions also consistent with LHCb previous measurement in pp collisions.

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