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## D-0-Meson R-AA in PbPb Collisions at root s(NN)=5.02 TeV and Elliptic Flow in pPb Collisions at root s(NN)=8.16 TeV with CMS

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### Abstract

The study of charm production in heavy-ion collisions is considered an excellent probe for the properties of the hot and dense medium created in heavy-ion collisions. Measurements of D-0-meson nuclear modification factor can provide strong constraints into the mechanisms of in-medium energy loss and charm flow in the medium. The measurement of D-0-meson elliptic flow in pPb collisions helps us understand the strength of charm quarks coupling to significantly reduced systems which demonstrate hydrodynamic properties. In this paper, the measurements of the D-0-meson nuclear modification factor in PbPb collisions at 5.02 TeV together with the new measurement of D-0-meson elliptic flow in high multiplicity pPb collisions at 5.02 TeV using the two-particle correlation method will be presented.

### Keywords

Author Keywords: Heavy Flavor; Nuclear Modification Factor; Energy Loss Mechanism; Elliptic Flow; Small Systems

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