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## $D^0$ -Meson $R_{AA}$ in PbPb Collisions at $s_{NN}=5.02\text{TeV}$ and Elliptic Flow in pPb Collisions at $s_{NN}=8.16\text{TeV}$ with CMS (Article) (Open Access)

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### Abstract

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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. © 2018

### SciVal Topic Prominence ⓘ

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