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Volume 982, February 2019, Pages 647-650**D<sup>0</sup>-Meson R<sub>AA</sub> in PbPb Collisions at s<sub>NN</sub>=5.02TeV and Elliptic Flow in pPb Collisions at s<sub>NN</sub>=8.16TeV 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<sup>0</sup>-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<sup>0</sup>-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<sup>0</sup>-meson nuclear modification factor in PbPb collisions at 5.02 TeV together with the new measurement of D<sup>0</sup>-meson elliptic flow in high multiplicity pPb collisions at 5.02 TeV using the two-particle correlation method will be presented. © 2018

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