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Nuclear Modification Factor and Elliptic Flow of Muons from Open Heavy Flavor Decays at Forward Rapidity in Pb-Pb Collisions at 2.76 TeV with ALICE

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Heavy-flavor particles are considered as one of the promising probes to investigate the properties of the high-density medium produced in ultrarelativistic heavy ion collisions. The study of the suppression of the heavy-flavor production via the nuclear modification factor is used to investigate the energy loss mechanism of heavy quarks in the medium. The measurement of the collective flow of heavy flavors provides insight on the possible thermalization of heavy quarks in the medium.

The Heavy-flavor production at forward rapidity (2.5<y<4) is measured in the single muon decay with the ALICE muon spectrometer. We present the latest results on the Pt-differential nuclear modification factor Raa and elliptic flow of muons from heavy-flavor deacys in Pb–Pb collisions at 2.76 TeV.

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