

Open beauty production and modifications in PbPb collisions at 5.02 TeV with CMS

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Beauty production and phenomena in heavy-ion collisions are considered to be one of the key measurements to address the flavour-dependence of in-medium energy loss in PbPb collisions at the LHC. The CMS experiment has excellent capabilities for measuring b-quark production thanks to the excellent performances of its muon and tracker system, allowing the measurement of D^0 and J/Ψ mesons from B meson decays, separately from prompt production, as well as fully reconstructed B mesons. In this talk, CMS will present the first measurement of the v_2 Fourier harmonic and the R_{AA} down to $p_T > 3$ GeV/c, for J/Ψ produced in B meson decays, in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV, as a function of transverse momentum, rapidity and event centrality. New measurements of the R_{AA} of non-prompt J/Ψ and D^0 from B decay in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV will also be reported. Finally, the measurement of R_{AA} for fully reconstructed B mesons will be shown, for the first time, in PbPb collisions at 5.02 TeV. The results are compared to various model calculations.

Preferred Track

Open Heavy Flavors

Collaboration

CMS

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