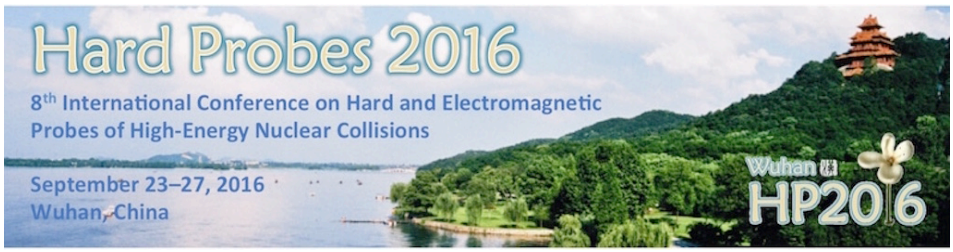

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D meson nuclear modification factor in PbPb at 5.02 TeV with CMS

Saturday, 24 September 2016 14:40 (20 minutes)

The measurement of heavy flavour production is a powerful tool to study the properties of the high-density QCD medium created in heavy-ion collisions as heavy quarks are sensitive to the transport properties of the medium and may interact with the QCD matter differently from light quarks. In particular, the comparison between the nuclear modification factors of light- and heavy-flavour particles provides insights into the expected flavour dependence of in-medium parton energy loss. Using the large statistics proton-proton and PbPb samples collected at 5.02 TeV during the 2015 LHC run, high precision open charm measurements are performed with the CMS detector in a wide transverse momentum range, from few GeV up to approximately 100 GeV. This allows us to set an important milestone in our understanding of energy loss phenomena. In this talk, the most recent results of nuclear modification factor of D^0 mesons in PbPb collisions at 5.02 TeV are presented and compared to the charged hadron nuclear modification factor at the same energy.

Summary

Presentation type

Oral

Primary author: WANG, Jing (Massachusetts Inst. of Technology (US))

Presenter: WANG, Jing (Massachusetts Inst. of Technology (US))

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