

Measurement of b-jet fraction and nuclear modification factors in PbPb collisions at $\sqrt{s_{NN}}=2.76$ TeV with CMS

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Modification to jets in high-energy heavy-ion collisions is expected to depend on the flavor of the fragmenting parton. To disentangle this flavor dependence, jets from heavy quark fragmentation are identified in heavy ion collisions. Jets are first tagged by their secondary vertices and the contribution from bottom quarks is extracted using template fits to their secondary vertex mass distributions. The bottom quark jet to inclusive jet ratio is measured with the CMS detector from PbPb and pp collisions at a center-of-mass energy of 2.76 TeV per nucleon. In this talk, the inclusive b-jet fraction and nuclear modification functions measured in the range of $60 < \text{jet } p_T < 200 \text{ GeV}/c$, using full 2011 PbPb and 2013 pp data collected at $\sqrt{s}=2.76$ TeV are presented.

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