



Contribution ID: 231

Type: Oral Presentation

Suppression of open bottom at high pT via non-prompt J/psi decays in PbPb collisions at 2.76 TeV with CMS

Friday, 17 August 2012 15:40 (20 minutes)

Measurements of the nuclear modification factor of mesons with open heavy flavor content in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV from the CMS experiment will be presented. These modification factors provide stringent constraints on the theoretical models of heavy quark energy loss. Until recently only indirect measurements of this effect existed, through single electrons from semileptonic open heavy-flavor decays. The importance of an unambiguous measurement of open bottom flavor is driven by the lack of knowledge regarding key features of the dynamics of parton energy loss in the QGP, such as its color-charge and parton-mass dependencies and the relative role of radiative and collisional energy loss. CMS is the first, and so far only, experiment to measure the nuclear modification factor of B hadrons, identified via their decays into J/psi displaced from the primary collision vertex. First results have shown that B hadrons are strongly suppressed in PbPb collisions at a level comparable to open charm. New results on the centrality dependence of RAA and the first measurement of the azimuthal anisotropy of non-prompt J/psi will be presented, based on the full 2011 PbPb data sample corresponding to an integrated luminosity of 150/ub.

Primary author: CMS, Collaboration (CERN)

Presenter: JO, Mihee (Korea University (KR))

Session Classification: Parallel 6A: Heavy Flavor & Quarkonia (Chair Y. Akiba)

Track Classification: Heavy flavor and quarkonium production