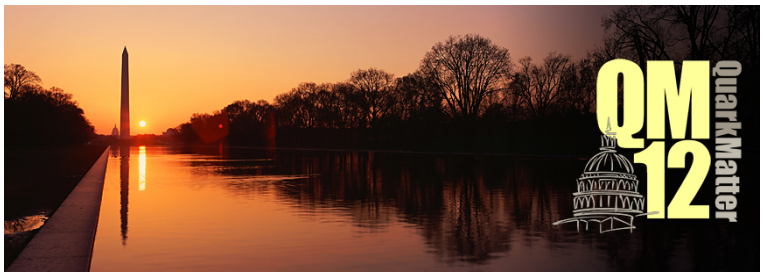

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Azimuthal angular correlations between heavy flavour decay electrons and charged hadrons in pp collisions at 2.76 TeV with the ALICE experiment

Thursday 16 August 2012 16:00 (2 hours)

The measurement of heavy-flavour (charm and beauty) production in ultra-relativistic heavy ion collisions provides an important test of the parton energy loss mechanism and its predicted color charge and parton mass dependencies. The suppression of electron yields from semi-leptonic decays of D and B mesons in Pb-Pb collisions at the LHC has been observed to be large. Because of the dead-cone effect, heavy quarks are expected to loose less energy than light quarks if the dominant energy loss mechanism is gluon radiation. The suppression expected on the basis of energy loss depends on the relative contribution of D and B hadrons to the total yield. Therefore, it is important to separate these contributions.
The relative contribution of beauty decays to the total electron yield from heavy flavour decays can be isolated by looking at azimuthal correlation between these electrons and charged hadrons, exploiting the different decay kinematics of D and B hadrons.
In this talk, we present results on the relative beauty contribution to the heavy flavour decay electron yield and the beauty production cross section in the pt range 2.5-10 GeV/c in pp collisions at sqrt(s) = 2.76 TeV recorded in 2011 with the ALICE experiment. The results are compared to predictions from next-to-leading order perturbative QCD calculations. In addition, the status of the same analysis in Pb-Pb collisions at sqrt(sNN) = 2.76 TeV is presented.

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