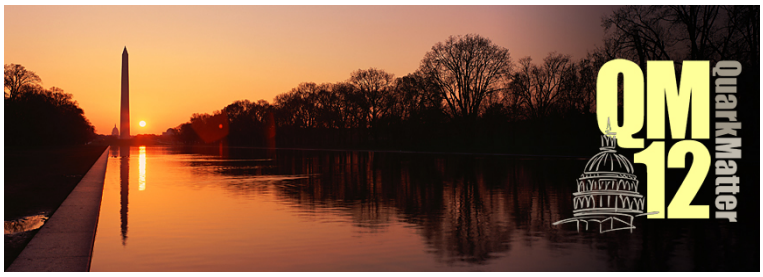

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Study of the production of B mesons in pp and Pb-Pb collisions using displaced electrons in ALICE

Thursday 16 August 2012 16:00 (2 hours)

Heavy quarks are expected to be a probe providing new constraints on partonic energy loss mechanisms in the medium produced in heavy-ion collisions at the LHC. In particular, the medium-induced parton energy loss is expected to depend on its mass and colour charge. The measurement of heavy quark production in pp collisions provides an important test of pQCD calculations and serves as a baseline for studies in heavy-ion collisions. The production of electrons from beauty hadron decays can be measured using their displacement from the primary vertex.
The pt differential production yields of electrons from beauty hadron decays have been measured at mid-rapidity (|y| < 0.8) in Pb-Pb collisions at
sqrt(s_NN) = 2.76 TeV by the ALICE experiment at the LHC in the transverse momentum range 1.5 < pt < 6 GeV/c. The pt dependence of the nuclear modification factor R_AA has been calculated with respect to a pp reference obtained from the cross section measured at sqrt(s) = 7 TeV and scaled to sqrt(s) = 2.76 TeV. We present the spectra in pp and Pb-Pb collisions and the nuclear modication factor of electrons from beauty decays for
different centrality classes.

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