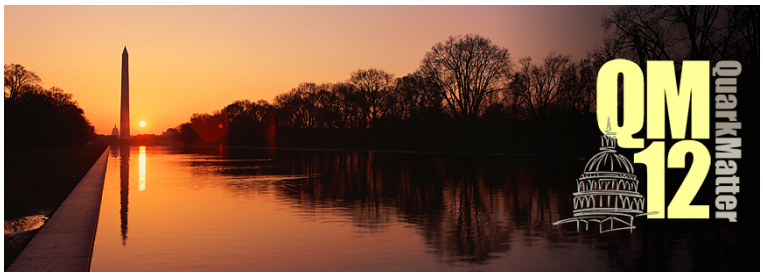

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D^+ meson production in p-p and Pb-Pb collisions with the ALICE detector

Thursday, August 16, 2012 4:00 PM (2 hours)

Open heavy flavour hadrons produced in high-energy ion collisions are an interesting tool to investigate the properties of the QCD medium, as they come from the hadronization of heavy quarks which are created in the early stage of the interaction and which experience the whole collision history.
Energy loss of heavy quarks in the medium can be investigated by comparing the heavy flavour production cross sections in p-p and nucleus-nucleus
collisions.

The measurement of D^+ production as a function of transverse momentum in p-p and Pb-Pb collisions at $\sqrt{s}_{NN}$ = 7 and 2.76 TeV respectively with the ALICE detector is presented.
D^+ mesons are reconstructed from their $K^-\pi^+\pi^+$ hadronic decay that can be reconstructed in the central rapidity region using the tracking and PID detectors.
Charm production cross sections in p-p collision is compared to pQCD predictions and the nuclear modification factor of D^+ is presented.

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