



Contribution ID: 89

Type: **not specified**

Measurements of open heavy flavour production in p-p and Pb-Pb collisions with Alice (15' + 5')

Thursday 9 June 2011 18:40 (20 minutes)

The main goal of the ALICE experiment is the investigation of the properties of strongly-interacting matter in a very high density deconfined state, that should be formed in Pb-Pb collisions.

The measurement of the heavy flavour production cross section in p-p collisions at the LHC will allow to test perturbative QCD calculations in a new energy regime. The p-p collisions data are also important as a reference for the study of dense matter effects in Pb-Pb collisions, where heavy quarks are expected to be sensitive probes for the QCD medium properties, as they are formed at shorter time scale than the medium itself. The nuclear modification factor (RAA), obtained by comparing p-p and Pb-Pb p_T -differential distributions, allows to measure the effect of in-medium energy loss. The status of open heavy flavour measurements in p-p collisions at 7 TeV and Pb-Pb collisions at 2.76 TeV with the ALICE experiment will be presented. The results of the single lepton analyses (electrons at central rapidity, muons at forward rapidities) and D mesons reconstruction in their hadronic decays will be discussed.

Presenter: CAFFARRI, Davide (INFN and University of Padova)

Session Classification: 4D Parallel - B, charm and onia