ID contributo: **85** Tipo: **non specificato**

First observation for heavy flavour production from the ALICE experiment at LHC

The ALICE experiment is the LHC detector dedicated to the study of the Quark Gluon Plasma (QGP) in Pb-Pb collisions. Heavy flavours are ideal probes to explore both the formation and properties of the QGP, since they experience the full collision history and are expected to be copiously produced at LHC, much more than at any other collider. With ALICE we will measure heavy flavours down to small transverse momentum, combining hadronic and leptonic channels, both at central and forward rapidity. In particular, at central rapidity, it is possible to exclusively reconstruct a selection of hadronic decay channels for open charm mesons and baryons. In addiction, the good identification of electrons allows to measure the production both of charmonium and open bottom.
An overview of the heavy flavour programme will be presented, focusing on the charm measurement in the central rapidity region. First results from p-p collisions at 7 TeV will be shown, including the clear signals of open and hidden charm hadrons reconstructed at ALICE. These data provide interesting insight into QCD processes in a new energy regime, are important as a baseline for the Pb-Pb program and demonstrate the potential for heavy flavour cross section measurements with the ALICE detector.

Autore principale: Dr. ROMITA, Rossella (GSI, Darmstadt)

Relatore: Dr. ROMITA, Rossella (GSI, Darmstadt)