



LHC Seminar

SPEAKER: Javier Castillo Castellanos (IRFU (FR))
TITLE: **Bottomonium production in p-Pb and Pb-Pb collisions in ALICE**
DATE: Tue 17/02/2015 11:00
PLACE: Main Auditorium

ABSTRACT

Quarkonium measurements play a crucial role in the investigation of the properties of the deconfined state of nuclear matter, the Quark-Gluon Plasma (QGP), produced in ultra-relativistic heavy ion collisions. In particular, the sequential suppression of the quarkonium states by colour screening has long been suggested as a signature and thermometer of the QGP.

The first results on charmonium suppression in Pb-Pb collisions at the LHC seem to indicate that, in addition to suppression mechanisms, a regeneration mechanism also plays a role. For bottomonia, such regeneration mechanism is expected to be small due to the smaller number of initial b - \bar{b} pairs compared to c - \bar{c} pairs. Initial state effects can also modify bottomonium production in Pb-Pb collisions. Initial state effects or Cold Nuclear Matter effects can be studied using proton-nucleus collisions, where no deconfined medium is expected to be created.

We will present the final results from Run1 on bottomonium production in p-Pb and Pb-Pb collisions measured with the ALICE muon spectrometer at forward-rapidity. The results will be compared to theoretical models and to other experimental results at LHC.