Contribution ID: **220** Type: **Parallel Talk**

Charged particle suppression in Pb+Pb, Xe+Xe, and p+Pb collisions measured with the ATLAS detector

Tuesday, May 15, 2018 9:40 AM (20 minutes)

The measurement of charge particle production in heavy ion collisions, when compared with pp data, provides insight into the properties of the hot and dense quark-gluon plasma. The ATLAS detector at the LHC recorded 0.49 nb^{-1} of Pb+Pb collisions, 25 nb^{-1} of p+Pb collisions and 4.2 pb^{-1} of pp collisions, all at the center-of-mass energy $\sqrt{s_{NN}} = \sqrt{s} = 5.02$ TeV. Recently, ATLAS also recorded 3 $\mu\mathrm{b}^{-1}$ of Xe+Xe collisions at $\sqrt{s_{NN}} = 5.44$ TeV, which offers a new opportunity to study the system size dependence of the parton energy loss. The large acceptance of the ATLAS detector allows measurements of charged hadron spectra in a wide range of both pseudorapidity and transverse momentum, differentially in collision centrality. The charged hadron spectra measured in Pb+Pb, Xe+Xe, and p+Pb collisions are compared to the analogous spectra measured in pp collisions, and the resulting nuclear modification factors R_{AA} and R_{pPb} are studied.

Content type

Experiment

Collaboration

ATLAS

Centralised submission by Collaboration

Presenter name already specified

Author: WOSIEK, Barbara Krystyna (Institute of Nuclear Physics Polish Academy of Sciences (PL))

Presenter: BALEK, Petr (Weizmann Institute of Science (IL))

Session Classification: Jet modifications and high-pT hadrons

Track Classification: Jet modifications and high-pT hadrons