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Type: **Parallel Talk**

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

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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 $\sqrt{s_{NN}} = \sqrt{s} = 5.02 \text{ TeV}$. Recently, ATLAS also recorded $3 \mu\text{b}^{-1}$ of Xe+Xe collisions at $\sqrt{s_{NN}} = 5.44 \text{ TeV}$, 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

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