



Contribution ID: 511

Type: **Poster**

Jet fragmentation measurements in Pb+Pb collisions with ATLAS

Tuesday, 29 September 2015 16:30 (2 hours)

A broad program of measurements using heavy ion collisions is underway in ATLAS, with the aim of studying the properties of QCD matter at high temperatures and densities and its interaction with hard probes. ATLAS has measured the distributions of charged particle transverse momentum and longitudinal momentum fraction in Pb+Pb collisions at $\sqrt{s_{NN}}=2.76$ TeV and in pp collisions at the same center-of-mass energy. A detailed study of the jet fragmentation as a function of jet pseudorapidity and transverse momentum in heavy ion collisions is presented, using the jet fragmentation measured in pp collisions as a reference. The dependence of the measured modifications on the distance from the jet axis as well as the magnitude of the soft enhancement will be quantified. These detailed measurements are expected to provide an insight into the mechanism of the modification of parton showering by the QCD medium.

On behalf of collaboration:

ATLAS

Session Classification: Poster Session

Track Classification: Jets and High p_T Hadrons