



Contribution ID: 244

Type: **not specified**

[Cancelled] Quenching of Hadron Spectra in Heavy Ion Collisions at the LHC

The p_{\perp} dependence of the nuclear modification factor R_{AA} measured in PbPb collisions at the LHC exhibits a universal shape, which can be very well reproduced in a simple energy loss model based on the Baier-Dokshitzer-Mueller-Peigné-Schiff medium-induced gluon spectrum. The scaling is observed for various hadron species (h^{\pm} , D , J/ψ) in different centrality classes and at both colliding energies, $\sqrt{s} = 2.76$ and $\sqrt{s} = 5.02$ TeV. Results indicate a 10%–20% increase of the transport coefficient from $\sqrt{s} = 2.76$ to $\sqrt{s} = 5.02$ TeV, consistent with that of particle multiplicity. Based on this model, a data-driven procedure is suggested, which allows for the determination of the first and second moments of the quenching weight without any prior knowledge of the latter.

Based on Phys.Rev.Lett. 119 (2017) no.6, 062302

Primary author: ARLEO, Francois (Laboratoire Leprince-Ringuet)

Presenter: ARLEO, Francois (Laboratoire Leprince-Ringuet)

Session Classification: WG4: Hadronic and Electroweak Observables

Track Classification: WG4: Hadronic and Electroweak Observables