

Inclusive jet and dijet suppression in Pb+Pb and Xe+Xe collisions with ATLAS

Thursday, 4 October 2018 09:00 (20 minutes)

Jets represent an important tool allowing to access the information about the hot and dense medium created in heavy ion collisions. Both jet yields and jet internal structure are observed to be modified in heavy-ion collisions compared to proton-proton reference. This talk presents latest measurements of the nuclear modification factor, R_{AA} , for $R = 0.4$ jets in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector at the LHC. The analysis is performed over a large range of transverse momentum, up to $p_T = 1$ TeV, and differentially in jet p_T , rapidity, and collision centrality. The jet R_{AA} is measured also differentially in the jet mass which provides a new information on the dependence of the energy loss on the jet's substructure. Measurements of dijets are expected to provide information about the path-length dependence of the energy loss or about the role of fluctuations in the energy loss. Latest results on the dijet momentum balance in Xe+Xe collisions at $\sqrt{s_{NN}} = 5.44$ TeV are presented and compared to the same quantity measured in Pb+Pb collisions $\sqrt{s_{NN}} = 5.02$ TeV.

Summary

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