

Jet substructure in heavy ion collisions with ATLAS

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Measuring jet substructure in heavy-ion collisions provides an opportunity to study detailed aspects of the dynamics of jet quenching in the hot and dense QCD medium created in these collisions. This talk presents a set of complementary ATLAS measurements of jet suppression and substructure performed using various jet definitions, constituents, and grooming techniques in Pb+Pb collisions. These measurements include small-radius calorimetry jets, charged tracks, and objects combining information from the tracker and calorimeter. Jet suppression is characterized using a nuclear modification factor, RAA, which compares jet yields in Pb+Pb and pp collisions at 5.02 TeV. The RAA is evaluated as a function of collision centrality, jet transverse momentum, and various observables that characterize jet substructure.

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