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Jet and heavy flavour measurements in heavy Ion collisions with ATLAS

Monday 24 October 2022 09:00 (30 minutes)

Measurements of hard processes in heavy-ion collisions provide powerful and broad information on the dynamics of the hot, dense plasma formed in relativistic nucleus-nucleus collisions. This talk gives an overview of the latest jet measurements with the ATLAS detector at the LHC, utilizing the high statistics 5.02 TeV Pb+Pb data collected in 2015 and 2018. This talk presents multiple measurements of jet and dijet production in heavy ion collisions and studies of jet structure using novel analysis techniques. New results sensitive to the role of color-charge on jet quenching using EW boson-tagged jets will also be shown. The talk will also present the latest measurements of heavy flavor in heavy ion collisions. A particular focus of the measurements is the systematic comparison of fully unfolded data to state-of-the-art theoretical models.

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