

STUDIES OF JETS IN QGP MEDIUM AT CMS

Olga Evdokimov¹ for the CMS Collaboration

¹University of Illinois at Chicago

Jet quenching phenomenon is one of the well-established signatures of the Quark Gluon Plasma. Quenching manifestations appear in a variety of experimental observables, showing medium-induced changes to the jets observed in heavy ion collisions with respect to reference measurements in vacuum-like proton-proton collisions. Studying properties of reconstructed jets via two-dimensional angular correlations of all particles produced in the collisions with respect to jet(dijet) axis, allows simultaneously assess the medium induced modifications to the jet shapes, fragmentation functions, extending these measurements to large angles, as well as to explore the angular patterns of energy flow due to quenching. In this talk, I will present differential measurements of charged particle densities and energy flow about the jet direction as a function of relative azimuth and relative pseudorapidity from PbPb and pp collisions recorded by the CMS Collaboration. Contributions to the event-wise jet-hadron correlations from medium-induced modifications of jets and the effects of potential medium response to the jet propagation will be discussed.