

Abstract Submitted
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The Dependence of the Energy Loss of Hard-Scattered Partons on the Geometry of the Collision SASKIA MIODUSZEWSKI, Brookhaven National Laboratory — The suppression of high p_T hadrons has been one of the most significant discoveries at RHIC. It has been interpreted as energy loss of hard-scattered partons in the dense matter created in Au+Au collisions. Due to the pure power-law spectrum of pions for $p_T > 3$ GeV/c and the observed constancy of the suppression factor, the suppression can be characterized by a constant fractional energy loss per particle. In an effort to gain understanding of the energy loss, the dependence on the geometry of the collision is investigated via the azimuthal asymmetry (v_2) of emitted particles. The fractional energy loss is shown as a function of the emission angle with respect to the reaction plane as well as the centrality of the collision. An attempt to disentangle the effects of the collision geometry and the energy density on the energy loss will be presented.

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