

APR06-2006-000868

Abstract for an Invited Paper
for the APR06 Meeting of
the American Physical Society

Jet Interactions with Dense Matter at RHIC¹

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The emission of hadrons with high transverse momentum is found to be suppressed in Au+Au collisions at RHIC compared with the emission in proton-proton collisions. This suppression is understood to be a final-state effect caused by the energy loss of energetic precursor partons during their propagation in the hot medium created in the nuclear collisions. The energy loss process is an important tool for probing the properties of the medium. In my talk, I will review our current quantitative understanding of the energy loss process and discuss possible observable effects of the energy deposition on the medium

¹Supported in part by DOE grant DE-FG02-05ER41367