

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Constraining energy-loss model parameters using multiple high-pt observables at RHIC CRAIG OGILVIE, Iowa State University, PHENIX COLLABORATION — High-momentum partons lose energy as they travel through the dense QGP that is formed at RHIC. In a recent publication PHENIX has performed a quantitative comparison between various parton energy-loss models and experimental data on single-particle suppression (R_{AA}) versus p_t . These data provided a constraint on the model parameters of medium opacity. It is important to also compare these model calculations with other complementary observables, such as R_{AA} as a function of the reaction plane, or the suppression of two-particle correlations. Using other observables can more fully test energy-loss models, since a broader suite of observables not only tests for consistency but may also offer better sensitivity to the model parameters and sample path-length distributions differently than R_{AA} . In this talk I will present the status of using PHENIX results to constrain the theoretical models of energy-loss at RHIC.

Craig Ogilvie
Iowa State University

Date submitted: 11 Jan 2008

Electronic form version 1.4