

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**Nuclear modification of electrons from heavy flavor decays at RHIC** JAMIL EGDEMIR, Stony Brook University<sup>1</sup> — Heavy quarks, such as charm and beauty, are an important tool used in the study of nuclear collisions. Initially created by the hard scattering of partons, some of the heavy quark-antiquark pairs dynamically evolve into quarkonia. However, the vast majority hadronizes into particles carrying open heavy flavor, which can decay into semileptonic channels. The PHENIX experiment has measured electrons from heavy flavor decays in p+p and Au+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV. The integrated electron yields are observed to scale with the number of binary collisions. The nuclear modification factor  $R_{AA}$ , determined from momentum spectra measured in p+p and Au+Au collisions, should shed some light on the question of heavy quark energy loss in the hot and dense medium created in nuclear collisions at RHIC.

<sup>1</sup>for the PHENIX Collaboration

Averbeck Ralf  
Stony Brook University

Date submitted: 14 Jan 2005

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