

Abstract Submitted
for the DNP06 Meeting of
The American Physical Society

Centrality Dependent Studies of Charged Particle Spectra at RHIC¹ SELEMON BEKELE, The University of Kansas, BRAHMS COLLABORATION — A major goal of the RHIC program is to create a deconfined state of nuclear matter at high temperatures and densities and to study the properties of this matter. A transition from a deconfined phase of quarks and gluons to hadronic matter requires significant rescattering of particles in the initial phase. The amount of rescattering is expected to increase with the size of the reaction region. It is therefore of interest to study reactions over a wide range of collision geometries as measured by centrality. Recent results from AuAu collisions at $\sqrt{s_{NN}} = 200$ GeV at RHIC show clear evidence of suppression of the hadron yields at mid-rapidity. Surprisingly, comparable suppression at forward rapidity has also been observed. While the suppression at mid-rapidity is believed to be due to final state effects, the cause of the suppression at forward rapidity is not very well understood. Comparing data from different collision systems may help us understand the underlying mechanism for the suppression at forward rapidity. We present preliminary results from the BRAHMS experiment on charged hadron spectra at pseudo-rapidity ~ 3.0 as a function of centrality in CuCu collisions at $\sqrt{s_{NN}} = 200$ GeV.

¹This work was supported by the Office of Nuclear Physics of the U.S. Department of Energy.

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Date submitted: 05 Jul 2006

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