

Abstract Submitted
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Centrality Dependent Studies of Identified Particle Spectra at RHIC¹ SELEMON BEKELE, University of Kansas, BRAHMS COLLABORATION — We present preliminary results from the BRAHMS experiment on identified particle spectra and ratios at $y \sim 0$ and $y \sim 3$ as a function of centrality for 200 GeV/NN Cu+Cu collisions. By comparing the Cu+Cu data with earlier results for the Au+Au and d+Au systems, it is possible to study how the heavy-ion reaction dynamics for a given number of participants depends on the overall system size. Particle yields, $\langle p_T \rangle$, and particle ratios are studied as a function of the number of participants. Transverse momentum distributions provide information on the final stages of the collision evolution at kinetic freeze-out. The kinetic freeze-out parameters of the Cu+Cu system are studied as a function of centrality by a simultaneous blast-wave model fit to the pion, kaon and (anti)proton spectra. The Cu+Cu results will be compared to other collision systems at RHIC to unravel the dependence on system size.

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