Particle ratios in PHENIX at RHIC

Hiroaki Ohnishi [a] for the PHENIX Collaboration

[a] *Brookhaven National Laboratory*

Presented by: Hiroaki Ohnishi

Abstract

The PHENIX experiment at Relativistic Heavy Ion Collider (RHIC) collected more than five million of Au+Au collisions at $\sqrt{s}$ = 130 GeV per nucleon during year 2000. The PHENIX Time-of-Flight (ToF) measurement opens an opportunity to investigate identified hadrons with transverse momentum up to 2.0GeV/c. The systematic study of particle yields relates to baryon stopping via proton/anti-proton ratios, to the existence and mechanism of enhanced production of light strange mesons via K/π and K/p ratios, and to comparisons with predictions of chemical and thermal equilibration in these collisions. In this presentation, particle ratios, i.e. π^+/π^-, K^+/K^- and proton/anti-proton will be presented as a function of centrality and transverse momentum.