

PHENIX results on identified pion,kaon,proton and anti-proton transverse momentum distributions in p+Au collisions at $\sqrt{s_{nn}} = 200$ GeV

Recent results from small collision systems at RHIC and LHC indicate that many of the signatures of collective behavior observed in AA collisions are also present in small systems in high-multiplicity events. The PHENIX experiment has performed comprehensive studies of long-range particle correlations and anisotropic flow in p/d/He3+Au collisions. Mass ordering has been observed in the p_t distributions of the anisotropic flow coefficients v_n . In the hydrodynamics description of the system evolution such mass ordering is expected to arise from radial flow, where all particles move with a common flow velocity. Information about the radial flow can be gained more directly from measurements of the transverse momentum distributions of identified hadrons. In this poster, we present the PHENIX the status of ongoing measurements of identified pion, kaon, proton and anti-proton spectra in p+Au collisions at $\sqrt{s_{nn}}=200$ GeV. The measurements are performed as a function of centrality. The spectral shapes will be studied to extract information about possible radial flow in p+Au collisions and its evolution with collision centrality.

Preferred Track

Collective Dynamics

Collaboration

PHENIX

Primary author: PENG, Weizhuang (Vanderbilt University (US))

Presenter: PENG, Weizhuang (Vanderbilt University (US))

Session Classification: Poster Session