

Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

Partonic collectivity at RHIC SHUSU SHI, STAR COLLABORATION — The measurement of event anisotropy, often called v_2 , provides a powerful tool for studying the properties of hot and dense medium created in high-energy nuclear collisions. The important discoveries of partonic collectivity and the brand-new process for hadronization - quark coalescence were obtained through a systematic analysis of the v_2 for 200 GeV Au+Au collisions at RHIC [1]. However, early dynamic information might be masked by later hadronic rescatterings. Multistrange hadrons (ϕ , Ξ and Ω) with their large mass and presumably small hadronic cross sections should be less sensitive to hadronic rescattering in the later stage of the collisions and therefore a good probe of the early stage of the collision. We will present the measurement of v_2 of π , p, K_S^0 , Λ , Ξ , ϕ and Ω in heavy ion collisions. In minimum-bias Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, a significant amount of elliptic flow, almost identical to other mesons and baryons, is observed for ϕ and Ω . Experimental observations of p_T dependence of v_2 of identified particles at RHIC support partonic collectivity.

[1] B. I. Abelev et al., (STAR Collaboration), Phys. Rev. **C 77**, 054901 (2008).

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Date submitted: 02 Jul 2009

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