

## Forward/Backward asymmetry of $v_n$ in Cu+Au at RHIC-PHENIX

Azimuthal anisotropies of particle production in high energy heavy ion collisions have proven to be an excellent tool for investigating the initial geometry and the bulk properties of the Quark Gluon Plasma (QGP). Azimuthal anisotropy, measured through Fourier coefficients  $v_n$ , have been measured at mid-rapidity and are used to constrain the initial geometry and viscosity-over-entropy ratio  $\eta/s$  of the QGP. Although there are many experimental observables and theoretical models, there are still uncertainties of the initial geometry and the  $\eta/s$ . Measurements of  $v_n$  at forward/backward rapidity provide further insight into initial geometry. It is interesting to measure the  $v_n$  coefficients at forward/backward rapidity in Cu+Au collisions, because of the asymmetry in number of participants and geometry in forward and backward direction. In this poster, we will present our work to measure forward/backward asymmetry of  $v_n$  coefficients at pseudorapidity  $3 < |\eta| < 4$  in Cu+Au collisions in comparison to results from Au+Au and Cu+Cu collisions.

### Preferred Track

Collective Dynamics

### Collaboration

PHENIX

**Primary authors:** Mr NAKAGOMI, Hiroshi (Tsukuba University); NAKAGOMI, Hiroshi (Tsukuba University)

**Presenters:** Mr NAKAGOMI, Hiroshi (Tsukuba University); NAKAGOMI, Hiroshi (Tsukuba University)

**Session Classification:** Poster Session