Abstract Submitted
for the APR08 Meeting of
The American Physical Society

High-p_T Measurement of Azimuthal Anisotropy of Electrons from Semi-leptonic Decay of Open Heavy Flavor Mesons in Au+Au Collisions at $\sqrt{s_{NN}} = 200GeV$ by the PHENIX Experiment ALAN DION, Iowa State University, PHENIX COLLABORATION — The azimuthal anisotropy of open heavy flavor mesons at RHIC provides information about the early stages of heavy ion collisions. PHENIX observed a large azimuthal anisotropy parameter v_2 of electrons from heavy flavor decays from RHIC Run4 at low tranverse momentum. Together with the observation of constituent quark scaling of v_2 for light hadrons, the electron v_2 is consistent in coalescense models with charm quarks flowing as much as light quarks. With the addition of a reaction plane detector in PHENIX and the increased statistics of RHIC Run7, v_2 of electrons can be measured with much-improved precision, answering the question of whether heavy flavor continues to flow in the range of p_T in which beauty production is believed to be comparable to that of charm. We present the p_T and collision centrality dependency of the azimuthal anisotropy of single electrons from open heavy flavor decays from RHIC Run7 data in PHENIX.

Alan Dion
Iowa State University

Date submitted: 16 Jan 2008 Electronic form version 1.4