Abstract Submitted
for the DNP12 Meeting of
The American Physical Society

π^0 production in Cu+Au at PHENIX SARAH CAMPBELL, Iowa State University, PHENIX COLLABORATION — Recent $\sqrt{s_{NN}}$ = 200 GeV Cu+Au collisions at RHIC provide a new system to study collision dynamics using high p_T π^0 production at mid-rapidity at PHENIX. The asymmetric Cu+Au collisions create unique initial-state collision geometries including odd harmonics beyond fluctuations and very central events where the Cu nucleus is embedded in the Au nucleus. The reaction plane dependence of π^0s allows us to probe different core-corona regions in these very central events, and to study the path length dependence of energy loss with different initial geometries. PHENIX has measured the suppression of π^0s with respect to reaction plane in 200 GeV Au+Au collisions and found it consistent with a cubic path length dependence, suggesting a non-perturbative energy loss model. The status of the Cu+Au π^0 analysis will be presented and compared with PHENIX Au+Au results.

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Date submitted: 06 Jul 2012 Electronic form version 1.4