Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Measurement of the Open Charm Cross Section in $\sqrt{s_{NN}} = 200$ GeV Cu+Cu Collisions for the STAR Experiment at RHIC STEPHEN BAUMGART, Yale University, STAR COLLABORATION — Because charm is produced during initial gluon fusion it provides a good probe of the early stages of the matter produced in a relativistic heavy ion collision. Deviations from theoretical predictions for heavy ion collisions may show medium effects. STAR has measured charm production in p+p, d+Au, and Au+Au collsions at $\sqrt{s_{NN}} = 200$ GeV using semi-leptonic decay channels and in d+Au and Au+Au collsions at $\sqrt{s_{NN}} = 200$ GeV using the $D^0 \to K\pi$ channel. We report on the measurement of $D^0 \to K\pi$ in Cu+Cu collisions at $\sqrt{s_{NN}} = 200$ GeV. A transverse momentum spectrum will be shown as well as the extrapolated open charm cross section. The charm cross section in Cu+Cu will be compared to previous experimental results as well as to FONLL theoretical predictions.

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Date submitted: 02 Jul 2007 Electronic form version 1.4