Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Measurement of low mass vector mesons by e^+e^- pairs in $\sqrt{s_{NN}} = 200GeV$ d+Au collisions at PHENIX YUJI TSUCHIMOTO, Hiroshima University, PHENIX COLLABORATION — In-medium modification of low mass vector mesons is predicted if chiral symmetry restoration occurred in the hot/dense matter created by heavy ion collisions at RHIC. The measurement of vector mesons in cold nuclear matter is important not only for a baseline measurement for our understanding of the in-medium effect in Au+Au collisions, but also for improving our understanding of in-medium modification of the meson properties inside the cold matter. The PHENIX detector can measure electrons and hadrons within the same acceptance at mid rapidity. ω and ϕ mesons have both hadronic and leptonic decay modes. Because the electron has a much larger mean free path, it suffers little from the final state effect, therefore he comparison of the effect; therefore the measurement in these two channels will provide us a powerful tool to study the possible in-medium effect due to the chiral symmetry restoration . PHENIX has substantial data sets for p+p, d+Au, Au+Au and Cu+Cu collisions to make a complete study of these effects. The current status of the ω and ϕ analysis will be shown for the d+Au analysis.

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Date submitted: 25 May 2005 Electronic form version 1.4