Abstract Submitted
for the DNP06 Meeting of
The American Physical Society

Study of dihadron fragmentation functions in $Au-Au$ at $\sqrt{s_{NN}} = 200GeV$ collisions at RHIC as a probe of the medium[1] OANA CATU, STAR COLLABORATION — Previous studies have shown jet modification in heavy ion collisions due to parton energy loss. One way to investigate this phenomenon is to study the dihadron fragmentation functions. In this work we use azimuthal correlations of high transverse momentum (p_T) hadrons to extract dihadron fragmentation functions. We study the correlations as a function of p_T of the trigger and associated particles in $Au-Au$ collisions at $\sqrt{s_{NN}} = 200GeV$ as measured in STAR. Earlier results showed that the ratio of opposite-sign pairs to same-sign pairs from Pythia simulations describe charge ordering in p-p collisions for lower p_T. We investigate charge ordering in heavy ion collisions and compare it to results from Pythia simulations. These new results will help gain insight into jet modification in the hot medium of high energy collisions, and hence put constraints on the nature and the magnitude of energy loss in this medium.

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Date submitted: 30 Jun 2006 Electronic form version 1.4