

Abstract Submitted
for the DNP12 Meeting of
The American Physical Society

Probing jet quenching via conditionally triggered two-particle correlations in Au+Au at $\sqrt{s_{NN}} = 200$ GeV ERIC VAZQUEZ, Columbia University, PHENIX COLLABORATION — A hot dense medium exceeding the critical energy density for the formation of a partonic state of matter has been created in heavy ion collisions at RHIC and LHC. This dense matter is extremely opaque to high energy partons and therefore leads to strong modifications of di-jets traversing the medium. These modifications are typically studied by comparing the di-hadron azimuthal correlation functions in Au+Au collisions to those in p+p collisions. However, di-hadron correlations measured in events triggered on a single hadron are subject to a surface bias due to the larger probability of a high- p_T parton emerging with little or no energy loss from production points near the surface of the medium. This effect can be reduced by studying events in which the production of two high- p_T hadrons at large azimuthal separation is required. We present the status of such an analysis performed at PHENIX using Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV.

Eric Vazquez
Columbia University

Date submitted: 09 Jul 2012

Electronic form version 1.4