

Abstract Submitted
for the DNP10 Meeting of
The American Physical Society

Jet-Hadron Correlations with Respect to the Event Plane ALICE OHLSON, Yale University, STAR COLLABORATION — Partons with high transverse momentum (p_T) are produced via hard scatterings in the initial stages of heavy-ion collisions and are therefore promising probes of the quark-gluon plasma (QGP) created in such collisions. The partons fragment into jets of hadrons, which can be reconstructed over the heavy-ion background due to recent advancements in jet-finding algorithms. One of the primary methods used to investigate the propagation and modification of hard-scattered partons through the QGP has been the study of correlations between hadrons and high- p_T particles. It is now possible to use reconstructed jets in these correlation studies. I report on correlations between the jet and event plane in search of a pathlength dependence to parton energy loss or the modification of fragmentation, and investigate the complications that arise when calculating the event plane in the presence of a jet. I also discuss investigations of jet-hadron correlations with a low p_T threshold applied to the associated charged hadrons. At low p_T , the anisotropy of the underlying event dominates the measured signal, and so one must correct for this background contribution in order to measure jet properties. The data analyzed were collected by the STAR detector in $\sqrt{s_{NN}} = 200$ GeV AuAu collisions at the Relativistic Heavy Ion Collider (RHIC).

Alice Ohlson
Yale University

Date submitted: 30 Jun 2010

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