

Abstract Submitted
for the OSS06 Meeting of
The American Physical Society

Full Reconstruction of Charged Hadrons Correlated With High p_T h^\pm , π^+ , π^- , p , and \bar{p} from STAR JASON ULERY, Purdue University, STAR COLLABORATION — Soft-hard angular correlations show that lost energy at high p_T is distributed to low p_T and away side correlated hadrons are partially thermalized with the bulk medium. In this talk we present $\Delta\phi$ and $\Delta\eta$ correlations of charged hadrons in $p_T > 0.15$ GeV/c with trigger hadrons of $p_T > 3$ GeV/c in 200 GeV pp, dAu, and AuAu (including the high statistics run-4 data) and 62 GeV AuAu collisions. Trigger hadrons are h^\pm and identified π^+ , π^- , p , and \bar{p} by the dE/dx relativistic rise. Correlation shapes and p_T spectra (and $\langle p_T \rangle$) are systematically studied as function of system, centrality, and trigger p_T ; they are further studied in different associated p_T and $(\Delta\phi, \Delta\eta)$ regions, respectively. Full associated yield and momentum magnitude are extracted. Results are confronted with models describing high p_T baryon and meson production, partonic energy loss, conical Mach cone, and thermalization processes.

Jason Ulery
Purdue University

Date submitted: 16 Mar 2006

Electronic form version 1.4