Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Azimuthal correlations of charged hadrons in Pb+Pb collisions at $\sqrt{s_{NN}}$ = 2.76 TeV ERIC APPELT, Vanderbilt University, CMS COLLABORATION — Azimuthal correlations of charged hadrons were measured in $\sqrt{s_{NN}}$ = 2.76 TeV Pb+Pb collisions by the CMS experiment. The distributions exhibit anisotropies that are correlated with the event-by-event orientation of the reaction plane. Several methods were employed to extract the strength of the signal: the event-plane, cumulant and Lee-Yang Zeros methods. These methods have different sensitivity to correlations that are not caused by the collective motion in the system (non-flow correlations due to jets, resonance decays, and quantum correlations). The second Fourier coefficient of the charged hadron azimuthal distributions was measured as a function of transverse momentum, pseudorapidity and centrality in a broad kinematic range: $0.3 < p_T < 12.0$ GeV/c, $|\eta| < 2.4$, and in 9 centrality classes.

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Date submitted: 18 Jan 2011 Electronic form version 1.4