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Measurement of High p_T Flow and Jet Correlation in Au+Au Measurement of High p_T Flow and Jet Correlation in Au+Au Collisions at $\sqrt{S_{NN}} = 200 GeV$ from PHENIX RUI WEI, PHENIX, PHENIX COLLAB-ORATION — Single hadron yields at high transverse momentum p_T are observed to be strongly suppressed in central Au+Au collisions. This suppression is thought to be the result of jet quenching, and the observed high p_T hadrons are thought to be dominated by fragmentation of hard scattered partons emitted from the surface of the overlap region. Although extremely simplistic, this picture would lead to a small but finite v_2 and a relatively unmodified near-side jet shape for these high p_T hadrons. A combined study of the v_2 and near-side jet correlations of leading hadrons can improve our understanding of the particle production mechanism and geometrical bias in this p_T region. PHENIX experiment installed a new reactionplane detector and collected 5.5 billion Au+Au events in RUN7. The significantly improved ability to determine the reaction-plane and large statistics allow a more detailed study of flow and jet correlation. Results on the elliptic flow and jet correlation for high p_T hadrons are presented.

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