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Multi-hadron triggered azimuthal correlations in Au+Au Collisions at $\sqrt(s_{NN})$ = 200 GeV from STAR BROOKE HAAG, UC Davis — Di-hadron correlation measurements have been used to probe di-jet production in heavy ion collisions at RHIC. A strong suppression of the away-side yield in these measurements is direct evidence that high-pt partons lose energy as they traverse the strongly interacting medium that is formed in ultra-relativistic heavy ion collisions. However, recent studies have shown that the momentum of the trigger particle is not a good measure of the jet energy. As a result, azimuthal di-hadron correlations have limited sensitivity to the shape of the fragmentation function itself. As an attempt at better constraining the initial parton energy we employ a multi-hadron triggered azimuthal correlation analysis. We present first results of multi-hadron triggered correlated yields in Au+Au collisions at $\sqrt(s_{NN})$ = 200 GeV from STAR. The results are compared to d+Au collisions and we discuss the implications for jet quenching.

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