

Abstract Submitted
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Energy-Energy Correlations and Other Di-Jet/Jet-Photon Correlations JUSTIN FRANTZ, SUNY Stony Brook, PHENIX COLLABORATION — An integral part of the RHIC program has been to use jet probes to study the Heavy Ion Medium. Such measurements have progressed from comparisons of plain particle yields at high p_t , to two-particle opening angle correlations, and currently further jet observables are being explored. For example, as a new twist and point of view on the interesting p_t -dependence of the di-jet azimuthal correlations, we have explored the Energy- Energy Correlation (EEC) in both 200 GeV Au+Au (run4 dataset) and p+p collisions. The EEC represents the autocorrelation of the energy flow of the jet fragmentation. Such measurements are attractive since they require no jet-finding in Au+Au but are a step towards event shape observables used to study perturbative and non-perturbative QCD. We've explored a technique for measuring the EEC using photon-triggered events, and we will also present other observables related to the PHENIX photon-jet and jet-jet measurements.

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