

Abstract Submitted
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Direct Photon-Hadron Correlations Measured in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ with the PHENIX Detector MEGAN CONNORS, Stony Brook University, PHENIX COLLABORATION — Direct photon-hadron correlations are an excellent channel for studying jet tomography of the medium produced in heavy ion collisions at RHIC. Since photons do not interact strongly with the medium, the photon approximately balances the momentum of the opposing jet. Determining the initial momentum of the jet allows for measurement of the effective modification to the fragmentation function through jet energy loss in the medium by comparing the away-side yield of the correlations in Au+Au to those in p+p. However, this measurement is complicated by the need to remove the contribution of photons from jet fragmentation processes from the inclusive photon correlations. PHENIX has established the ability to extract the direct photon-hadron correlations via a statistical subtraction procedure. To improve the uncertainties in the measurement, event by event techniques have also been studied. The latest PHENIX measurements along with comparisons to theoretical models will be presented.

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