

Abstract Submitted  
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**Direct photon-hadron correlations in  $\sqrt{s} = 200$  GeV p+p collisions with the PHENIX detector** MATTHEW NGUYEN, Stony Brook University, PHENIX COLLABORATION — The modification of the away-side jet in hadron-hadron correlations indicates that the matter produced in heavy-ion collisions (A+A) is extraordinarily dense. Direct photon-hadron correlations provide a more sensitive probe than hadron-hadron correlations because the photon tracks the energy of the opposing jet more closely and has much less interaction with the medium than hadrons. A method has been developed to separate the direct photon-hadron correlations from the large background of decay photon-hadron correlations. Results will be presented from  $\sqrt{s} = 200$  GeV p+p collisions from the run 5 PHENIX data. This data is an important baseline for the A+A data as well as an important check of the method in an environment free from the large background produced in A+A collisions. The results will be compared to predictions from the PYTHIA generator. The status of the A+A data will also be discussed.

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