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Pythia Study of Rapidity-Separated Two-Particle Correlations in $\sqrt{s}$=200 GeV p+p collisions.[1] YIFAN YUAN, NATHAN GRAU, Augustana University — The PHENIX detector at the Relativistic Heavy Ion Collider collected data from $\sqrt{s_{NN}}$ = 200 GeV d+Au collisions in 2016. This data set includes the MPC-EX which enhances π^0 identification at forward rapidity sensitive to low-x partons in the Au nucleus. We are measuring π^0-hadron two particle azimuthal correlations in this data set for pairs separated in rapidity. We used PYTHIA to gain an intuition on how the away-side width is dependent on parton kinematics. In this poster, we will show the results of two-particle correlations in PYTHIA8. We find that the away-side width broadens with the rapidity gap. For triggers in the forward rapidity, the away-side width increases with x of the target.

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Yifan Yuan
Augustana University

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