

Abstract Submitted
for the DNP17 Meeting of
The American Physical Society

$\pi^0 - \pi^0$ **Azimuthal Correlations Comparisons Between PYTHIA and 2008 PHENIX Data**¹ JOHN WHITE, Augustana Univ - Sioux Falls, PHENIX COLLABORATION — The Muon Piston Calorimeter Extension (MPC-Ex) is housed in front of the Muon Piston Calorimeter (MPC), a sub-detector of PHENIX at RHIC. Using the forward rapidity ($3 < \eta < 3.8$) arm of the MPC-Ex we can measure the low- x portion of the nuclear wave function and the energy loss in cold nuclear matter using the 2016 $d+Au$ run. However, there is no $p+p$ baseline for the 2016 $d+Au$ run. Using PYTHIA we can create a baseline to compare the 2016 run data. In order to assure the validity of the PYTHIA, we compare the simulation to 2008 $p+p$ and $d+Au$ $\pi^0-\pi^0$ correlations measured by PHENIX.

¹funding and data provided by NSF, PHENIX and, Augustana University

John White
Augustana Univ - Sioux Falls

Date submitted: 31 Jul 2017

Electronic form version 1.4