Two-particle correlations in 200 GeV p+p with the MPC-EX at RHIC-PHENIX

JOHN WHITE, Augustana College, PHENIX COLLABORATION — The Extension to the Muon Piston Calorimeter (MPC-EX) is a newly installed tungsten-silicon preshower added to enhance the forward (3<|η|<4) photon identification in p+p and p+A collisions in the PHENIX detector at the Relativistic Heavy Ion Collider (RHIC). At these pseudorapidities new and extended measurements using the correlation of two particles can be made. For example, one can look for a flow-like correlation with low momentum pairs in high multiplicity collisions. At higher momentum jet-like correlations probe high-$Q^2$ and low-$x$ partons in the target proton or nucleus and can potentially test models of gluon saturation. In this poster, we outline some details of the MPC-EX detector and its performance in the p+p and p+Au runs during 2015 as well as give a current status of two-particle correlation analysis using the MPC-EX.

John White
Augustana College

Date submitted: 02 Aug 2015

Electronic form version 1.4