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Forward Physics with the MPC-EX+MPC Detector with RHIC-PHENIX[1] NATHAN GRAU, Augustana University, PHENIX COLLABORATION — Measurements of the gluon wavefunction of a nucleus at low momentum fraction can help our understanding of QCD evolution. It is also an important input for interpreting the formation of the Quark-Gluon Plasma (QGP) observed in heavy ion collisions and the possible formation of QGP droplets in asymmetric ion collisions. Late in the PHENIX data-taking campaign a Si-W preshower, the MPC-EX, was added to the existing forward muon pison calorimeter extending the ability to separate π^0 decay photons to very high energy. Particles entering the preshower + calorimeter at $3.0 < \eta < 3.8$ can originate from a high-x parton in the beam with a low-x gluon in the target nucleus. In this talk we outline the current performance of the detector in the 2016 d+Au $\sqrt{s_{NN}} = 200$ GeV collision data and the current and near-future prospects of measurements with this detector and their impact on our understanding of the gluon wavefunction of the nucleus.

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