Particle production at large Feynman-x in d-Au and p-p collisions at $\sqrt{s} = 200$ GeV

CHRIS PERKINS, UC Berkeley/Space Sciences Laboratory for the STAR Collaboration — We report the status of the analysis of particle production in the pseudorapidity range $\eta = 2.5$ to 4.2 using the Forward Meson Spectrometer (FMS) at STAR. The data used in this analysis were collected during the 2008 d-Au and p-p RHIC run at $\sqrt{s} = 200$ GeV. An integrated sample luminosity of 50 nb$^{-1}$ (7.8 pb$^{-1}$) of d-Au (p-p) collisions were collected for this analysis. Particles are produced at large rapidity by asymmetric partonic collisions at this $\sqrt{s}$. This analysis focuses on pairs of clustered energy depositions in the FMS, arising primarily from incident photons, electrons and positrons. Of particular interest is the possible observation of J/Psi through its electron+positron decay. Event reconstructions are applied to both data and to full simulations using PYTHIA for event generation and GEANT for detector response, and then intercompared. Observation of large $x_F$ J/Psi production is of interest because of the possibility that intrinsic charm components in the proton wave function contribute to its production.

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