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Quality Assurance of the 2012 Endcap 0 data at STAR and Analyzing 2013 Data JOSEPH SNAIDAUF, Valparaiso University, STAR COLLABORATION — The Solenoidal Tracker at RHIC (STAR) experiment based at Brookhaven National Laboratory uses collisions of polarized protons to study, among other things, the contributions of gluons to the spin of the proton. The STAR detector's Endcap Electromagnetic Calorimeter (EEMC), located in the pseudorapidity range 1 ¡ ¡ 2, provides sensitivity to gluons carrying a low fraction of the proton momentum (x ¡ 0.05), where the gluon spin contribution is still relatively poorly constrained. The gluon spin contribution can be determined by studying the 0 production from p+p collisions with different orientations of the spins of the colliding protons. 0 s are reconstructed using the energies deposited in the EEMC by the two decay photons and the opening angle between them. To ensure that the data from 2012 longitudinally polarized p+p collisions at s=510 GeV under study are of useable quality, a C++ script was written to plot, as a function of run number, several key characteristics of the neutral pion reconstruction process obtained from ROOT trees. In addition, 0 s were reconstructed via ROOT from the 2013 longitudinally polarized p+p collisions at s =510 GeV. The results of these studies will be presented.

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