Abstract Submitted
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Noise Analysis of the Forward Gem Tracker at STAR JOE OSBORN, Star Collaboration — The Forward Gem Tracker (FGT) is an upgrade to the Solenoidal Tracker Detector (STAR) at the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Lab. The FGT is designed to extend the current mid-rapidity tracking capabilities of STAR into the forward region ($1<\eta<2$) covered by the Endcap Electromagnetic Calorimeter (EEMC). The combination of the EEMC and FGT will permit detection of decay $e^-(e^+)$ from $W^-(W^+)$ particles produced in polarized proton collisions at $\sqrt{s} = 500$ GeV. Measurements of the parity violating asymmetry from W decays will provide important constraints on the sea quark $\overline{u}\Big/\overline{d}$ helicity distributions in the proton and ultimately provide insight into the possible flavor asymmetry of the light sea. The FGT was partially installed in the fall of 2011 and operated during the 2012 RHIC run. Analysis of run 12 data, specifically cluster characteristics and noise patterns, will be presented. The current installation status and plans for future running with the FGT at STAR will be discussed.

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