Abstract Submitted
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The STAR Forward Calorimeter Upgrade: Performance and Prototype[1] DAVID KAPUKCHYAN, University of California, Riverside, STAR COLLABORATION — The STAR experiment at the Relativistic Heavy Ion Collider, RHIC, is installing an upgrade consisting of tracking (small thin gap chambers and silicon) and electromagnetic and hadronic calorimetry at forward pseudorapidity, $2.5 < \eta < 4.0$, for pp, pA and AA running after the beam-energy-scan II. The new detectors will utilize the unique capabilities of RHIC to collide polarized protons and heavy ions to explore novel measurements in cold QCD such as the nucleon spin structure, parton saturation, and transport properties of matter in relativistic heavy ion collisions. The new calorimeter system consisting of a hodoscope preshower and both electromagnetic and hadron calorimeters have been tested at the Fermilab test beam. The full system prototype has been installed and successfully ran during the 2019 RHIC run. This talk will discuss the results of the tests, integration, and performance of the prototype in heavy ion collisions.

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