

Abstract Submitted  
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**Quality Analysis and Control Procedures for the PHENIX RPC Forward Trigger Upgrade** DILLON THOMAS, Abilene Christian University, PHENIX COLLABORATION — The PHENIX detector is located at Brookhaven National Laboratory on the Relativistic Heavy Ion Collider (RHIC) ring where it studies both heavy ion and polarized proton-proton collisions. One of the primary goals of the polarized proton program is to improve our understanding of the proton's spin structure. A level 1 trigger upgrade is currently being constructed for PHENIX. This will involve the installation of Resistive Plate Chambers (RPCs). These new chambers will improve our ability to trigger on high transverse single muons that are produced in the decay of W bosons. Before these new chambers can be installed they must pass a series of quality control tests. These simple but effective tests will be performed on internal components of the RPCs before the individual modules are assembled. These tests will yield a pass or fail result for each gas gap. All gaps that pass these tests can then be used in the construction of the RPC modules. A brief introduction to the physics and construction of RPCs, current quality procedures and tests, and current status of the RPC tent will be presented.

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