

Abstract Submitted
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Assembling Nine Resistive Plate Chamber Prototype Modules for PHENIX THALASSA SODRE, Muhlenberg College, PHENIX COLLABORATION — The Pioneering High Energy Nuclear Interaction eXperiment, located at the RHIC ring at Brookhaven National Laboratory, is designed to examine direct probes from proton-proton and heavy ion collisions. One of the goals of PHENIX is to discover how the components of the proton contribute to its intrinsic spin. Specifically, the muon trigger upgrade at PHENIX focuses on flavor separated quark and anti-quark contributions to proton spin. The goal of the upgrade is to enhance our ability to collect and analyze muons that decay from W-bosons produced in polarized proton-proton collisions. To achieve this, Resistive Plate Chambers (RPCs) and new front-end electronics will be employed that will enable us to discern high PT muons from the low PT muon background. This poster will focus on the assembly and quality assurance procedures of the RPC modules. Over the summer nine RPC prototypes were assembled and tested on a cosmic ray stand. Two half octants—made up of three RPC prototypes each—will be installed on the south arm of the PHENIX detector this fall.

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