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Performance of PHENIX Prototype Resistive Plate Chambers[1]
BRETT FADEM, Muhlenberg College, PHENIX COLLABORATION — The PHENIX detector is located on the ring of the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory. Prototype resistive plate chamber (RPC) modules were deployed during the latest RHIC run. The production versions of such modules will form an integral component of an upgrade to the PHENIX muon trigger. As a result of this upgrade, the determination of flavor separated quark and anti-quark distribution functions will be possible using single spin asymmetries of muons created in the parity-violating decay of W bosons. A report on the relative efficiency and timing resolution of the prototype under the $\sqrt{s} = 500$ GeV beam will be given.

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Brett Fadem
Muhlenberg College

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