

Abstract Submitted
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The Results of a Resistive Plate Chamber Study for the PHENIX Forward Muon Trigger Upgrade NATHAN SPARKS, Abilene Christian University, PHENIX COLLABORATION — The aim of the PHENIX Forward Muon Trigger Upgrade is to allow the use of W boson physics, specifically the non-invariance of W decay under parity reversal, to elucidate a better understanding of the spin structure of the proton. A fast muon trigger system will be assembled by adding three Resistive Plate Chamber (RPC) stations to the existing PHENIX infrastructure at RHIC. There are a number of RPC prototypes being carefully studied to ensure that the upgrade succeeds. One such study is being conducted at the University of Illinois at Urbana-Champaign and involves the tracking of cosmic rays passing through an RPC test stand. The main objective of the study is to determine the cluster size, position resolution, efficiency, and rate capability of the RPCs. The analysis of the data collected during the study will be presented.

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