

Abstract Submitted
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Testing Different Materials to Produce Gas Gaps in High Rate RPCs RYAN WRIGHT, Abilene Christian University, FOR THE PHENIX COLLABORATION — The PHENIX experiment at the Relativistic Heavy Ion Collider at Brookhaven National Laboratory uses polarized proton-proton collisions to study the spin of the proton. This study is made by reconstructing muons produced in the proton collisions. As RHIC moves to higher energies, the existing trigger is not sufficient to select the events of interest such as single high p_T muons that are a result of W-Boson production. To aid the current muon triggering system, fast Resistive Plate Chambers made from Italian Bakelite are being added to the detector system. At the University of Illinois Urbana-Champaign, a test stand has been built to help understand different factors that affect the RPCs performance and rate capabilities. The test stand uses open gas gap RPCs which are ideal for testing different materials and their rate capabilities of these different materials. Various materials and their data will be presented.

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