

Abstract Submitted
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Calibrating Scintillator position measurement for testing RPC modules for PHENIX at RHIC DANIEL JUMPER, Abilene Christian University — PHENIX is a large, high-energy experiment at the Relativistic Heavy Ion Collider. One of PHENIX's many goals is to study the spin structure of the proton through observing W-boson decays from quark-anti quark interactions in polarized p-p collisions. An upgraded trigger system using Resistive Plate Chambers that are being built for PHENIX will increase the rejection factor of unfavorable events by two orders of magnitude so that this measurement is possible. As these RPCs are manufactured and assembled into larger sections for installation, an important step in quality assurance is testing each module in a cosmic ray test stand triggered by hodoscopes. These scintillators will also provide a position measurement, giving us positioning information in directions where the stacked RPCs have low spatial resolution. With careful timing calibration the information from the scintillators will enable us to test aspects of the RPC manufacturing that will lead to much higher quality monitoring. This talk will include methods and some results from this positioning measurement.

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