

Abstract Submitted
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The High Voltage System for the PHENIX RPC Test Stand PHIL BAILEY, Abilene Christian University — PHENIX is an experiment at RHIC designed to probe the spin structure of the proton by observing high energy polarized proton-proton scattering. Observing W boson production is an effective way to make this measurement. The W bosons are identified by detecting their decay into muons. In order for these rare events to be effectively measured, however, the muon trigger requires an upgrade that will allow the higher rejection rate required by higher luminosities at RHIC. The upgrade will allow PHENIX to trigger only on the high pT muons and ignore the lower pT background muons. The actual hardware that will provide the triggering is called an RPC. In order to test the working condition of the RPCs, they will be placed on a test stand in order to gain assurance that cosmic muons are seen by the detectors. The high voltage systems, including cabling and data logging software, that operate the RPCs in the cosmic test stand will be presented.

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