

Abstract Submitted
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RPC Prototypes for the PHENIX Forward Muon Trigger Upgrade at RHIC JUN YING, Georgia State University, PHENIX COLLABORATION — The PHENIX collaboration at RHIC plans to build a fast muon trigger system for the PHENIX detector based on Resistive Plate Chamber [1] (RPC) technology to determine W boson production cross sections and single spin asymmetries at $\sqrt{s} = 500$ GeV by detecting decay muons at forward and backward rapidities. Several prototypes have been built and tested using cosmic ray in order to understand the RPC performances like time resolution, trigger efficiency, power consumption etc. The results are reported here.

[1] R.Santonico and R.Cardarelli, *Nucl. Instr. and Meth.* **187** (1981) 377.

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