

Abstract Submitted  
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**The PHENIX MuTrig Local Level One Trigger Upgrade at PHENIX** JOSHUA PERRY, PHENIX — The PHENIX detector at the Relativistic Heavy Ion Collider at Brookhaven National Laboratory has had robust forward muon tracking and identification from the MuTracker and MuID detector systems for many years. The addition of the resistive plate chamber (RPC) detectors in the forward region as well as the upgrade of the muon tracker (MuTr) front-end electronics allows for greater rejection of both collision related and non-collision related backgrounds at the trigger level. The MuTrig Local Level One (LL1) trigger system allows for the rejection of events without high momentum muons originating from the collision; this allows for collision event selection (such as W boson production). This updated trigger system will ultimately increase the trigger rejection factor from a few hundred to over 9,000. The LL1 trigger system is a very sensitive system which requires active monitoring. This presentation focuses on commissioning of the MuTrig LL1 and the implementation and monitoring of the trigger system during its installation in 2011.

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