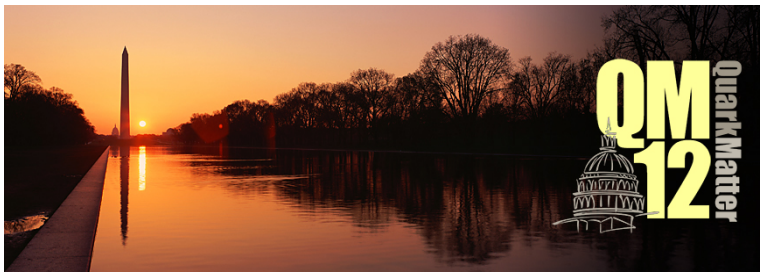

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Performance of the Muon Telescope Detector in STAR at RHIC

Thursday 16 August 2012 16:00 (2 hours)

A larger area of muon telescope detector(MTD) at mid-rapidity will provide excellent muon identification and trigger capabilities at mid-rapidity in the high-luminosity era at RHIC. This novel and compact detector can provide crucial measurements for many exciting physics perspectives. We can measure different Upsilon states and J/psi over a broad transverse momentum range through di-muon decays to study color screening features. The measurment of e-muon correlations can distinguish heavy flavor contributions from initial lepton pair production. The construction of the MTD at STAR has been started. In 2012, about 10% of the full system have been installed in STAR and taken data smoothly. In this poster, we will report the performance of the MTD in 2012 including its trigger capabilities,spatial, and timing resolution. Physics capabilities such as e-muon correlations will also be discussed.

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