Hard Muon Studies from the PHENIX experiment

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During the 2001 run the PHENIX experiment at BNL's Relativistic Heavy Ion Collider (RHIC) collected data for pp collisions at $\sqrt{s} = 200\,GeV$. During this run, muon detection capability was added with the commissioning of the South muon arm covering $1.1 < \eta < 2.25$.
For collisions at these energies, hard and semi-hard parton scattering processes constitute a large fraction of particle production. In particular, it is expected that heavy flavor (b/c) production has a significant contribution to the production of single hard muons. We study the performance of the muon arm spectrometer, address issues for the measurement of single hard muons in PHENIX, and identify key features of their production.