

Abstract Submitted
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Heavy Flavor Measurements with FVTX Upgrade Detector at PHENIX SERGEY BUTSYK, LANL, PHENIX COLLABORATION — The Relativistic Heavy Ion Collider at Brookhaven National Laboratory opened a new era in Heavy Ion Physics. Measurement of heavy flavor (charm and bottom) production at RHIC is one of the most important goals of the RHIC physics program. Open Charm and Bottom is born in the early stages of the collision and carries the full information about the evolution of the collision. Over the last 6 years the PHENIX experiment has developed techniques for disentangling the yield of muons from heavy flavor particles from the single muon spectrum. However, this analysis relies on the precise knowledge of the background muon sources: muons from hadronic decays and punch-through hadrons that pass through the material of absorber. Large systematic errors come from poor knowledge of the background muon sources. To significantly improve the current heavy flavor program in muon channel PHENIX plans to construct a Forward Vertex Detector, consisting of four disks of silicon strips in the muon arm acceptance and install it by Year 2011. I would like to describe the physics goals for the proposed upgrade and to present the current expectations for the background rejection improvement for the heavy flavor measurement with FVTX detector.

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