

Title: Neutral B meson oscillation and prospects for b physics at PHENIX
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Abstract: Dilepton pairs resulting from the production of open bottom (B) mesons are an important tool to probe the hot and dense matter created from nucleus-nucleus collisions at the Relativistic Heavy Ion Collider (RHIC). The phenomenon of neutral B meson particle-antiparticle oscillation has been well established. If $B\bar{B}$ oscillation occurs, neutral B mesons can decay through their primary decay channel into a like-sign muon pair. I will review $B\bar{B}$ oscillation and outline a new method to analyze bquark production through its like-sign dimuon channel in addition to future plans to study heavy flavor modification at PHENIX.