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Tagging Jets with Heavy Flavor using the PHENIX VTX Detector ALEXANDER SHAVER, Iowa State University, PHENIX COLLABORATION — To better understand the behavior of hadron jets containing heavy flavor (charm, beauty), measurements by a silicon vertex detector (VTX) will be used to tag jets reconstructed by the anti-k$_T$ algorithm. The VTX provides precise measurements of particle tracks near the vertex, and allows us to determine quantities such as reconstructed secondary vertices, and the distance of closest approach of each track to the collision vertex. By taking advantage of the longer lifetimes of hadrons with heavy flavor (D and B mesons, for example), we can preferentially select jets containing heavy flavor for further study. I will show results from simulated data of the predicted VTX capabilities for tagging jets containing heavy flavor. The status of performing such measurements in p+p and Au+Au data collected in the RHIC 2011 run will be discussed.

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