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Study of single muon from heavy quark production at forward rapidity in p+p collisions at $\sqrt{s}=510$ GeV JEONGSU BOK, None, PHENIX COLLABORATION — PHENIX has studied single muons from semi-leptonic decay of heavy mesons in the forward rapidity region $1.2 < |\eta| < 2.2$. The observation of heavy quark production in p+p collisions is important as a test of pQCD theory. The RHIC 2012 p+p collision run at 510GeV produced the first significant p+p data with the new Forward Vertex (FVTX) detector installed in PHENIX. The FVTX will allow us to measure displaced vertices of single muons taking advantage of the different lifetimes of heavy mesons(D and B for example) and long-lived ordinary mesons (K and π^{\pm}). We present a study of single muons in RHIC 2012 p+p collision run at 510GeV, with well-developed method in previous p+p results at forward rapidity and status of a new study using FVTX.

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