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Non-photonic electron production in p+p collisions at $\sqrt{s}$ = 200 GeV XIAOZHI BAI, 1. Central China Normal University 2. University of Illinois at Chicago, STAR COLLABORATION — High precision measurements of heavy flavor production in proton-proton collisions are instrumental to test the validity and constrain the parameters of pQCD calculations of heavy quark production. They also provide a baseline for the interpretation of heavy flavor production in heavy-ion collisions. In this talk, we present an improved measurement of non-photonic electron (NPE) production from semi-leptonic decay of open heavy flavor hadrons in proton-proton collisions at $\sqrt{s}$=200 GeV by the STAR experiment at the Relativistic Heavy Ion Collider. The results cover a wide range of transverse momentum, $0.2<p_T<12$ GeV/c. The results for $2.5<p_T<12$ GeV/c are based on about 24 pb^{-1} of data triggered on energy deposited in the electromagnetic calorimeter, while the results for $0.2<p_T<2.5$ GeV/c are extracted using about 300 M minimum-bias events. The measured NPE production cross-section is compared to previous STAR and PHENIX experimental results, as well as pQCD model calculations.

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