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Determining Relative Contributions of Charm and Bottom to Single Electron Spectra in pp Collisions at RHIC[1] HARRY THEMANN, Stony Brook Physics & Astronomy, PHENIX COLLABORATION — Heavy quark production has always been considered as one of the unique and unbiased probes to study the properties of the dense matter produced in Heavy Ion collisions at RHIC. The PHENIX experiment at the Relativistic Heavy Ion Collider (RHIC) with its exceptional electron identification system enables us to perform high precision measurements of electron yields. By measuring electron production at high transverse momentum, we can disentangle the contribution of electrons originating from semi-leptonic decays of heavy quarks (charm or bottom) from the less interesting "photonic" decay modes of light mesons. The ability to disentangle the relative contribution of charm and beauty to the electron yield has not been available. We have combined the data of the 200GeV pp Run 5 with Run 6. This combination allows the electron p_T spectrum to be extended to at least 10 GeV where the contribution from bottom is expected to dominate. We compare these spectra to pQCD calculations to attempt to quantify the relative contributions of charm and bottom.

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