Non-photonic electron double longitudinal spin asymmetry measurements in polarized $\vec{p} + \vec{p}$ collisions at STAR

PRISCILLA KURNADI, UCLA, STAR COLLABORATION — The production of heavy flavor quarks by gluon-gluon fusion in polarized p+p collisions is sensitive to the polarized gluon distribution function, delta g. Sensitivity to heavy quark production can be attained by the detection of the non-photonic electrons resulting from the semi-leptonic decays of heavy mesons containing b and c quarks. The challenge in obtaining the non-photonic signal stems from the need to separate the signal from a background of photonic electrons, which are produced from other processes such as conversions of photons from $\pi^0$s converting on material in the detector. I will discuss the status of an analysis to extract the double longitudinal spin asymmetry, $A_{LL}$, of non-photonic electrons from the $\sqrt{s} = 200$GeV polarized pp collision data collected by STAR during the 2005 and 2006 RHIC runs.