

Abstract Submitted
for the APR07 Meeting of
The American Physical Society

Progress toward using non-photonic electrons in polarized p+p collisions to measure the gluon spin structure function PRISCILLA KURNADI, UCLA, STAR COLLABORATION — One of the main goals of the RHIC spin program is to measure the gluon spin structure function ΔG in the proton. So far, STAR has focused efforts on inclusive measurements such as pion and jet production in polarized pp collisions. However, as improvements in both beam and detector have allowed for increased luminosity and statistics in the available data, other probes are becoming viable. One such probe is the non-photonic electrons from semi-leptonic decays of heavy flavor quarks. In pp collisions, production of heavy quark pairs is dominated by gluon-gluon fusion, $gg \rightarrow q\bar{q}$. A study of these non-photonic electrons in polarized pp collisions will provide insight into ΔG . This talk will provide an overview of what has been done to date on the detection of non-photonic electrons towards an A_{LL} measurement. The talk will include a summary of the electron identification procedures using the STAR Time Projection Chamber (TPC), Barrel Electromagnetic Calorimeter (BEMC), and Barrel Shower Maximum Detector (BSMD). A status update on the measurement of non-photonic electron yield in polarized pp collisions at the center of mass energy of 200 GeV from the 2006 run will be presented.

Priscilla Kurnadi
UCLA

Date submitted: 12 Jan 2007

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