

Abstract Submitted
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Non-photonic Electron Measurements in 200 GeV p+p collisions at RHIC-STAR¹ XIN LI, STAR COLLABORATION — Compared to the light quarks, heavy quarks are produced early in the collisions and interact very differently with the strongly coupled QGP(sQGP) created at RHIC. In addition, their large masses are created mostly from Higgs mechanism. All these features make heavy quark an ideal probe to study the sQGP. One of the critical references in these studies is the heavy quark production in p+p collisions, which also provides a crucial test to the pQCD. Measuring electrons from heavy quark semi-leptonic decay (non-photonic electron) is one of the major approaches to study heavy quark production at RHIC. We will present STAR measurements on the mid-rapidity non-photonic electron production at $p_T > 2$ GeV/c in 200 GeV p+p collisions using the datasets from the 2008 and 2005 runs, which have different photonic backgrounds. We will compare our measurements with the FONLL prediction and also report the status of the analysis at $p_T < 2$ GeV/c using the dataset from the 2009 run.

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