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Study of $b\bar{b}$ angular correlations in $p + p$ collisions at $\sqrt{s} = 510$ GeV at RHIC TRISTAN HASELER, Georgia State University, PHENIX COLLABORATION — Heavy flavor quarks are an important probe of the initial state of the Quark Gluon Plasma formed in heavy ion collisions. Understanding beauty quark production in $p + p$ collisions can give a baseline reference for studying larger collision systems. The measurement of $b\bar{b}$ angular correlations gives insight into b quark production mechanisms which can directly test pQCD predictions. The $b\bar{b}$ signal can be isolated by taking advantage of the properties of B^0 oscillations in the invariant mass region of 5-10 GeV. Measuring like-sign dimuons within this mass range provides an enriched beauty signal without any contributions from quarkonia and the Drell-Yan process. $b\bar{b}$ angular correlations will be measured through the like-sign dimuon signal, in the rapidity range $1.2 < |y| < 2.2$ and at $\sqrt{s} = 510$ GeV from data recorded in 2013 at the PHENIX experiment. In this talk, the status of the $b\bar{b}$ angular correlations study will be presented.

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