Identification of Upsilon Particles Using the Preshower Detector in STAR\textsuperscript{1} LLOYD DUNKELBERGER, University of Florida, STAR COLLABORATION — The STAR detector, located at Brookhaven National Laboratory is used for investigating relativistic heavy ion collisions and the possible formation of a new state of matter, the Quark Gluon Plasma (QGP). The suppression of heavy quarkonia, such as J/Psi and Upsilon particles, can be an important sign of the QGP. The J/Psi signal is complicated by the fact that some recombination is also expected in the QGP. The heavier Upsilon particle is interesting because it is not thought to experience recombination at RHIC energies. This poster will investigate attempts to reconstruct the Upsilon signal using a background subtraction method.

STAR’s Barrel Electromagnetic Calorimeter (BEMC) has a Barrel Preshower detector (BPRS) which facilitates the identification of the electrons over a hadronic background. We will look at work done in commissioning the BPRS, its effectiveness in reducing hadronic background in the calorimeter, and how this background reduction influences Upsilon identification.

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