

Abstract Submitted
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Heavy Flavour and calibration of the STAR Preshower Calorimeter
RORY CLARKE, Texas A&M Cyclotron Institute, STAR COLLABORATION
— Heavy flavour quarks provide a unique probe into the hot dense deconfined medium expected to form during heavy ion collisions, the Quark Gluon Plasma. One of the signals of this state of matter is the suppression of the J/Psi signal, observed in PHENIX and the SPS. However, this is complicated by the recombination of charm quarks in the medium. A possible signal that would not undergo recombination is the Upsilon and this could be used to compliment the J/Psi signal. The wide opening angle of the dilepton decay channel makes the large acceptance of the STAR detector ideal for reconstructing this signal. The preshower detector is part of the STAR Barrel Electromagnetic Calorimeter (BEMC). The calorimeter surrounds the STAR tracking chamber and measures particle energies via secondary showers that pass through it. The preshower detects the early showering of electrons, which can then be separated from later interacting hadrons. The setup will be discussed along with a tour of the methods used to calibrate signals from this detector. Finally, the increased hadron rejection possible from this detector will be discussed for heavy flavour programs being conducted at RHIC, such as the Upsilon and J/Psi searches.

Rory Clarke
Texas A&M Cyclotron Institute

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