

Abstract Submitted
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Calibration of the Shower Maximum Detector in the Barrel EMC at STAR¹ KARA FARNSWORTH, University of Arizona, SASKIA MIODUSZEWSKI, MARTIN CODRINGTON, Texas A&M University — Because of a photon's lack of interaction with the quark-gluon plasma (QGP), the γ -jet process (in which a direct photon is produced back to back with a jet) is a good probe of the medium. However, background photons, like those from π^0 decay must be factored in to the analysis. To distinguish between these direct and decay photons, a well calibrated detector is needed. The Barrel Shower Maximum Detector (BSMD) in the Barrel Electromagnetic Calorimeter (BEMC) at STAR has high resolution, but has not been calibrated well enough to discriminate between these two events. A pedestal subtraction was performed on the raw ADC vs. strip ID data from a Au+Au 200 GeV run. Each strip in both φ (pseudorapidity) and η (azimuth) was then assigned a status identification number, each corresponding to a hot, cold, dead, or good channel, for quality assurance. By finding the gains for each strip and normalizing them, calibration constants were obtained which can be applied to future runs. This accomplished a relative calibration of the BSMD.

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Kara Farnsworth
University of Arizona

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