

Abstract Submitted
for the DNP11 Meeting of
The American Physical Society

A Calibration Technique for the ALICE Electromagnetic Calorimeter at the Large Hadron Collider¹ KAREN COSSYLEON, CHAAN THOMAS, EDMUNDO GARCIA-SOLIS, Chicago State University, MATEUSZ PLOSKON, PETER JACOBS, Lawrence Berkeley National Laboratory — The Large Hadron Collider at CERN is the world's largest and highest energy, particle and heavy ion collider. The LHC explores the frontiers of particle physics using high energy proton + proton collisions and the properties of the Quark-Gluon Plasma through the collision of heavy nuclei. ALICE is one of the four LHC experiments, specialized for the study of heavy ion collisions. This study presents our work on a detector of ALICE, the Electromagnetic Calorimeter. We are analyzing the proton-proton collision data recorded at 2.76 TeV. The ALICE TPC is used to isolate the tracks of e^+e^- pairs that originate from the decay of J/Ψ particle and that fall within the EMCal's acceptance. The TPC measures the momentum of these electron tracks, which is compared to the energy deposited by them in the EMCal. We therefore use the precise measurement of TPC momentum as the reference to calibrate the EMCal energy measurement. In this presentation we will show the steps taken to analyze the data, how we performed the matching of electron tracks from the J/Ψ decay with the energy deposited in the EMCal and some preliminary results.

¹Research funded by NSF grant PHY-0968903.

Edmundo Garcia-Solis
Chicago State University

Date submitted: 28 Jun 2011

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