

Abstract Submitted
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Pressure Dependence Studies on UTA GEM Based Digital Hadron Calorimeter EDWIN BALDELOMAR, University of Texas Arlington - HEP — The University of Texas at Arlington High Energy Physics group has been developing a Digital Hadron Calorimeter (DHCAL) for the future International Linear Collider (ILC) using the Gas Electron Multiplier (GEM) technology. The group has built several prototype chambers of dimension 30cmx30cm. The prototypes have been successful in measuring charges deposited from traversing incident particles from cosmic ray and radioactive sources. The data was taken using the KPIX ASIC chips. This presentation includes the pressure variance of the GEM chamber and thus correcting for gain using cosmic and Fe 55 data through KPIX. In addition, the significance of the results to the future development of actual GEM DHCAL for use in the ILC experiments.

Edwin Baldelomar
University of Texas Arlington - HEP

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