

Abstract Submitted
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Attenuation Calibration in the NOvA Detectors MEDBH CAMPBELL, University College London, NOVA COLLABORATION — NOvA is a long baseline neutrino experiment which is constructed from long extruded PVC cells filled with liquid scintillator. When charged particles move through the scintillator, they produce scintillation light. A loop of wavelength shifting optical fibre in each cell transports the scintillation light to the electronic readout. Light is attenuated as it passes through this fibre - this must be calibrated for using cosmic muons. However, cosmic muons do not deposit equal amounts of energy throughout the detector due to threshold effects, detector self-shielding, and variation in individual fibres transmittance of light. In this talk, we discuss corrections for all three of these effects, and their impact on the accuracy of reconstructed energy.

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