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Sensitivity of Quasi-Elastic Scattering in the LBNE Near Detector

We present sensitivity studies of the ν_μ -induced Charged-Current Quasi-Elastic (CCQE) interactions in the Fine-Grained Tracker (FGT) which is the LBNE Near Detector. Efficiency and purity of QE selection is presented in energy bins spanning 0.5 to 25 GeV.

Constraints on nuclear effects such as initial state pair wise correlations and final state interactions that can be obtained from the CCQE data are discussed.

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Track Classification: Neutrino Interactions