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Absolute Flux Measurement Using Fine Grained Tracker Near Detector For LBNE HONGYUE DUYANG, XINCHUN TIAN, SANJIB MISHRA, University of South Carolina, LBNE COLLABORATION — The proposed Long-Baseline Neutrino Experiment (LBNE) is the next generation neutrino oscillation experiment designed to measure neutrino mixing angle θ_{13} , CP-violation and mass hierarchy. A Fine Grained Tracker (FGT), based upon straw-tubes, is the reference near detector design for LBNE. We show that using ν -electron neutral and charged (inverse muon decay) current scattering, the LBNE-ND should be able to measure the absolute neutrino flux to a precision of $\sim 3\%$ over a 5-year run.

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