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Inclusive Charged-Current ν_μ Analysis of the Pi-Zero Detector at T2K ROBERT A. JOHNSON, University of Colorado, T2K COLLABORATION
— The T2K long-baseline neutrino experiment is designed to measure the neutrino mixing angle θ_{13} as well as perform a precision measurement of oscillation parameters for ν_μ disappearance. A beam of muon neutrinos originating from the Japan Proton Accelerator Research Complex (J-PARC) is measured both at a near detector (ND280, located onsite at J-PARC 280 m away from the beam's origin) and a far detector (Super-Kamiokande, 295 km away). This talk presents an analysis of inclusive charged-current ν_μ events from interactions within the Pi-Zero detector, a subdetector component of ND280. The details of this measurement – including analysis cuts and systematic error studies – will be reported. The analysis, along with a separate and complementary analysis using other subdetectors within ND280, will be used to measure the inclusive charged-current ν_μ flux and provide input to the combined near/far oscillation analysis.

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