

Abstract Submitted  
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**Results of the  $\nu_\mu$  Charged Current Inclusive Analysis using the  $\pi^0$  Detector and Time Projection Chamber of the T2K Experiment** RAJ DAS, ALEX CLIFTON, Colorado State University, ROBERT JOHNSON, ALYSIA MARINO, University of Colorado, EREZ REINHERZ-ARONIS, WALTER TOKI, Colorado State University, TIANLU YUAN, University of Colorado — Using a cut based analysis method, we select charged current interactions of  $\nu_\mu$  with nuclei in the Pi-Zero Detector (P0D) of the Tokai to Kamioka (T2K) experiment. We reconstruct negatively charged tracks originating in the P0D and measure their momenta using the Time Projection Chamber (TPC). The results of the analysis are presented as a ratio between selected event rates in data and event rates in monte carlo simulation. The ratios are given as a function of multiple bins of kinematic variables such as candidate muon momentum and track direction at the vertex. We also briefly discuss the strategy behind using the result to extract a neutrino cross section on water.

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