

Abstract Submitted  
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**The ND280 Near Detector of the T2K Experiment** WILLIAM COLEMAN, Louisiana State University, T2K COLLABORATION — The Tokai to Kamioka (T2K) experiment is a long-baseline neutrino oscillation experiment designed to improve the sensitivity to  $\theta_{13}$  and to determine more accurately the “atmospheric” parameters  $\theta_{23}$  and  $\Delta m_{23}^2$ . For this purpose a high intensity  $\nu_\mu$  beam ( $\sim 700$  MeV peak energy) produced at the JPARC accelerator complex is directed towards the Super-Kamiokande (SK) detector at a distance of 295 km. An off-axis near detector (ND280), 280 m from the production target, was designed and constructed to measure the energy spectrum, flavor content and neutral and charged current interaction rates of the un-oscillated neutrino beam. All ND280 detector components - Time Projection Chambers (TPCs), Fine-Grained Scintillator detectors (FGDs), electro-magnetic calorimeters (ECALs) and Side Muon Range Detector (SMRD) – have been commissioned and physics data taking is underway. In this presentation, the performance of ND280 and its role in the T2K analyses will be discussed.

William Coleman  
Louisiana State University

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