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Outer Detector Events at T2K TARITREE WONGJIRAD, Duke University, T2K COLLABORATION — In the long-baseline neutrino oscillation experiment, T2K, the Super-Kamiokande (Super-K) detector is used to detect neutrino interactions from a beam 295 km away. Super-K is a 40 kTon water Cerenkov detector that is divided into two segments: a cylindrical inner volume, the Inner Detector (ID), nested inside a cylindrical outer volume, the Outer Detector (OD). Typically, the OD's role is to act as a cosmic ray veto for the ID. However, in T2K, events that involve signals in the OD can be kept for use in neutrino analyses. This is because the background event rate is highly suppressed when events are accepted within the small time window coincident with the arrival of beam neutrinos at Super-K. In this talk, I will describe the techniques used to select neutrino events involving the OD and possible future analyses that use these events.

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