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Title: Scintillation Time Profile Measurements using an LAPPD

#### Abstract

Future neutrino detectors, whether answering questions of fundamental physics or exercising nuclear monitoring techniques, can leverage advanced technologies for optimal performance. Of particular interest for reconstructing neutrino interactions --- both the position thereof, and the direction of the incident neutrino --- in optical detectors are devices that detect photons with ever-smaller timing uncertainty. One such emerging technology is the Large-Area Picosecond PhotoDetector (LAPPD), which extends the  $O(50)$  picosecond resolution of micro-channel plate detectors to sensitive areas of  $\sim 400$  square centimeters. We present a preliminary characterization of time-profile measurements of gamma interactions in water, conventional liquid scintillator, and water-based liquid scintillator samples using Incom LAPPD tile #22.