

# The Accelerator Neutrino Neutron Interaction Experiment: New Developments in Neutrino Detection

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**Abstract:** The Accelerator Neutrino Neutron Interaction Experiment (ANNIE) is a 26-ton water Cherenkov neutrino detector along the Booster Neutrino Beam (BNB) at Fermilab. Its primary physics goals are the measurement of final-state neutron yield of neutrino interactions and of charged-current cross section of muon neutrinos. ANNIE is also a prime staging ground for up-and-coming technologies in neutrino detectors. One such technology is Water-based Liquid Scintillator (WbLS), a novel detector medium aimed at combining the advantages of Cherenkov and scintillation detectors. ANNIE has recently deployed a target 366L vessel of WbLS in its tank. This talk will detail the experiment and its recent activity, up to and including this deployment.

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