

## ANNIE in 10 minutes

*Monday, 8 July 2024 16:15 (15 minutes)*

The Accelerator Neutrino Neutron Interaction Experiment (ANNIE) is a 26-tonne water Cherenkov detector in the Booster Neutrino beam. The water is gadolinium-loaded, greatly improving neutron detection efficiency. This enables ANNIE to make measurements of neutron multiplicity for beam-induced neutrino interactions, leading to reduced uncertainties in neutrino energy estimation for current and next-generation neutrino oscillation experiments. In addition, ANNIE serves as a testbed for new technologies, including Water-based Liquid Scintillator (WbLS), and Large Area Picosecond Photodetectors (LAPPD). This talk gives an overview of the ANNIE experiment and physics program.

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