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The Accelerator Neutrino Neutron Interaction Experiment (ANNIE)

The Accelerator Neutrino Neutron Interaction Experiment (ANNIE) aims at measuring the neutron abundance in the final state of neutrino-nucleus interactions. This measurement will have a direct impact on our understanding of neutrino interactions and will lead to a better reduction of systematic errors and an improvement of signal-background discrimination in future large neutrino detectors. The ANNIE detector uses 30 tons of gadolinium-loaded water to enhance the neutron-caputre cross section. It is instrumented with a combination of conventional photomultipliers and novel Lare Area Picosecond Photodetectors (LAPPDs). After a background characterization phase, the detectors has been installed in the Booster Neutrino beam at Fermilab and has begun taking data. This presentation will show early data from the ANNIE experiment.

Mini-abstract

The Accelerator Neutrino Neutron Interaction Experiment (ANNIE) shows early data.

Experiment/Collaboration

ANNIE

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