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## First Neutron Capture Results In ANNIE

*Monday, 20 July 2020 11:30 (15 minutes)*

ANNIE, the Accelerator Neutrino Neutron Interaction Experiment, is a 26-ton Gd-loaded water Cherenkov detector that aims to measure the momentum-transfer dependent final-state neutron multiplicity in neutrino-nucleus interactions. The improved understanding and modelling of these complex, many-bodied, interactions will reduce many of the more dominant systematics of current and next-generation long-baseline neutrino experiments. For ANNIE to achieve this goal, it is imperative to fully understand the detector's neutron capture and detection capabilities. This talk will discuss the development, production and deployment of the AmBe neutron source and present the first neutron capture results in ANNIE.

### Summary

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