CEvNS and NINs: observation of coherent elastic neutrino-nucleus scattering by COHERENT

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Coherent elastic neutrino-nucleus scattering (CEvNS) is a process in which a neutrino scatters off an entire nucleus and for which the observable signature is a tiny nuclear recoil. The process was first predicted in 1973. It was measured for the first time by the COHERENT collaboration using the unique, high-quality source of neutrinos from the Spallation Neutron Source (SNS) at Oak Ridge National Laboratory and a cesium iodide crystal scintillator detector. This talk will describe COHERENT's recent measurement of CEvNS, the status and plans of COHERENT's suite of detectors at the SNS, and future physics reach.