

## First observation of reactor antineutrinos by coherent scattering

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Abstract: Coherent elastic neutrino scattering was predicted in 1974, but it took until 2017 before it was first observed with partially-coherent scattering neutrinos from pion decays at rest. In 2024 the XENONnT and PandaX dark matter experiments reported indications based on neutrinos from the Sun. This talk will cover the first observation of coherent neutrino scattering by the CONUS+ experiment with reactor anti-neutrinos at low energies in the fully coherent regime. The implications for new physics beyond the Standard Model and an outlook on future results will also be discussed.