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# First performance of the Ricochet experiment at ILL

*Wednesday 27 August 2025 16:20 (20 minutes)*

The Ricochet experiment aims at measuring the coherent elastic neutrino-nucleus scattering (CE$\nu$NS) of reactor antineutrinos at the Institut Laue-Langevin, ILL (Grenoble, France). Ricochet employs two detector technologies to measure the CE$\nu$NS: (1) germanium cryogenic calorimeters with neutron-transmutation-doped thermistors (called *CryoCube*); (2) cryogenic calorimeters with a superconducting target and a transition-edge sensor readout (called *Q-Array*). The *CryoCube* exploits a combined readout of phonons and ionization to identify nuclear recoil events and reject other backgrounds (electron recoils). The *Q-Array* will use pulse shape discrimination related to the different timescales of quasiparticle recombination and phonon relaxation for electron- and nuclear-recoils respectively. In 2024, the Ricochet experiment was commissioned at the ILL with a *mini-CryoCube* detector, composed by three 42-gram germanium detectors. The results in terms of detector performance and background levels achieved during this commissioning phase will be presented in this contribution.

## Collaboration you are representing

Ricochet

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