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Modeling of TES based Modular CEvNS detectors for the Ricochet Experiment

Coherent elastic neutrino-nucleon scattering (CEvNS) offers a valuable approach in searching for physics beyond the Standard Model. The Ricochet neutrino experiment aims to detect CEvNS at the ILL nuclear reactor with cryogenic solid-state detectors. The design calls for a modular array of cryogenic thermal detectors with a target energy threshold of around 50 eV, with the flexibility of utilizing various target materials. In this poster, we show the latest progress of modeling Transition-Edge-Sensor (TES) thermal detectors for Ricochet, the first iteration of detector fabrication, and engineering data from the first batch of detectors.

Mini-abstract

Modeling of TES based Modular CEvNS detectors for the Ricochet Experiment

Experiment/Collaboration

Ricochet Collaboration

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