



Poster session 3 – Wednesday 6 July

P3.058 Ricochet update for measuring CENNS at MIT research reactor

A Leder¹, A Anderson², J Billard³ and J Formaggio¹

¹MIT, USA, ²FermiLab, USA, ³IPNL/CNRS, France

on behalf of Ricochet collaboration

The Ricochet experiment seeks to measure Coherent (neutral-current) Elastic Neutrino-Nucleus Scattering (CENNS) using dark matter style detectors placed near a neutrino source such as the MIT research reactor (MITR), which offers a high continuous neutrino flux at high energies. First detection of this process could provide a new window into a number of different physics, including non-standard neutrino interactions and better understanding of supernova dynamics. Currently the Ricochet collaboration is characterizing the neutron background for deployment at the MITR via the unfolding of data collected by a He-3 Bonner cylinder detector deployed at the future detector site. We will discuss current results as well as prospects for future sensitivities based on current background measurements.