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Calibrating CEvNS Detectors

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The experimental characteristic for a CEvNS detection is a low-energy nuclear recoil. For many detector technologies, the total energy of the recoil is not fully transferred into the signature —e.g. scintillation, ionization. In this case, the "quenching factor" needs to be calibrated. I will briefly present a set of the most common techniques to measure these effects with precision, and touch on the impact for the CEvNS community.

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