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Coherent elastic neutrino-nucleus scattering in the Standard Model and beyond

Friday 25 April 2025 09:00 (35 minutes)

I will discuss the physics potential of coherent elastic neutrino-nucleus scattering (CEvNS), a neutral-current process in which a neutrino scatters off an entire nucleus. I will first briefly review the main features of CEvNS and the status of current observations. Then, I will discuss how these measurements have opened the window to many physics applications, from Standard Model precision tests to searches for new physics, including implications for dark matter direct detection searches.

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