

A ton-scale single phase LAr CEvNS detector

Friday 25 August 2023 11:40 (20 minutes)

Coherent elastic neutrino-nucleus scattering (CEvNS) was predicted in 1974 as a consequence of the weak neutral current. 43 years later, the COHERENT collaboration first observed CEvNS using a 14.6-kg CsI detector. After 3 years, CEvNS on argon was measured using COH-Ar-10 (CENNS-10), 24-kg liquid argon detector. There are many physics opportunities related to CEvNS, but COH-Ar-10 has ~30% statistical uncertainty in the measured cross-section according to the published result. In this talk, I will introduce COH-Ar-750 (CENNS-1ton), a ton-scale liquid argon CEvNS precision detector under construction.

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Session Classification: parallel (room#302)

Track Classification: WG6: Detector Physics