Contribution ID: **268** Type: **Poster coherent scattering**

Measuring Coherent Elastic Neutrino Nucleus Scattering with the CENNS-10 Liquid Argon Detector

The COHERENT experiment recently made the first measurement of coherent elastic neutrino nucleus scattering (CEvNS) at the 6.7σ level with a 14.6 kg CsI(Na) crystal at the Oak Ridge National Laboratory. COHERENT uses the Spallation Neutron Source at ORNL as the neutrino source and also plans to test the N^2 dependence of the CEvNS cross section by making measurements on multiple targets. To that end, COHERENT also deploys a 22 kg fiducial mass liquid argon detector CENNS-10, which was commissioned at ORNL in late 2016. There have been two dedicated data runs of CENNS-10, one in early 2017 and one in late 2017 after an upgrade of the light collection ability and increased shielding. I will present initial results of the first data run, a first look at the second data run, and the future plans of the COHERENT liquid argon program.

Authorship annotation

for the COHERENT Collaboration

Session and Location

Wednesday Session, Poster Wall #25 (Robert-Schumann-Room)

Poster included in proceedings:

yes

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Track Classification: Poster (participating in poster prize competition)