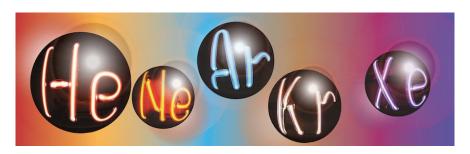
LIDINE 2017: Light Detection In Noble Elements



Contribution ID: 28 Type: Presentation

Search for CEvNS with a liquid argon scintillation detector

Friday, 22 September 2017 11:15 (15 minutes)

The COHERENT collaboration is deploying a suite of low-energy detectors in a low-background corridor of the

ORNL Spallation Neutron Source (SNS) to measure coherent elastic neutrino nucleus scattering (CEvNS) on an array

of nuclear targets employing different technologies. A measurement of CEvNS on different nuclei will test the

 N^2 -dependence of the CEvNS cross section and further the physics reach of the COHERENT effort. The first step

of this program has been realized recently with the observation of CEvNS in a 14.6 kg CsI detector. Operation and

deployment of Ge and NaI detectors are also underway. A 22 kg, single-phase, LAr detector (CENNS-10) started

data-taking in Dec. 2016 and will provide results on CEvNS from a much lighter nucleus. The design and performance

of the CENNS-10 detector will be presented.

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Session Classification: Friday Morning 2

Track Classification: Applications (dark matter, neutrino, precision frontier, medicine, etc.)