

New Trends in High-Energy Physics



Contribution ID: 132

Type: **not specified**

Study of CEvNS by the COHERENT collaboration

The first observation of Coherent Elastic neutrino Nuclear Scattering (CEvNS) has been observed at a 6.7-sigma confidence level by the COHERENT collaboration using 14.6-kg CsI[Na] scintillator at pulsed neutrino beam from Spallation Neutron Source at Oak Ridge National Laboratory [1]. The CEvNS process predicted by the standard model is a neutral-current weak interaction with cross section is enhanced by N^2 , where N is the number of neutrons in the nucleus. This indicates a new way to build compact neutrino detectors and unlocks new channels to test the standard model. In this talk we will review implications of the first result and future plans of collaboration of high statistic studies of CEvNS with next generation of detectors.

Author: Prof. EFREMENKO, Yuri (Univeristy of Tennessee)

Presenter: Prof. EFREMENKO, Yuri (Univeristy of Tennessee)