Contribution ID: 19 Type: Talk

## **CEVNS** with the nuBDX-DRIFT detector

Friday, 24 March 2023 11:10 (15 minutes)

The  $\nu$ BDX-DRIFT detector is a directional low-pressure TPC that uses carbon disulfide as target material, but is flexible enough to operate with other target materials such as carbon tetrafluoride or tetraethyllead. Using decay-in-flight neutrino fluxes at Fermilab (NuMI or LBNF), the  $\nu$ BDX-DRIFT detector offers a CEvNS program complementary to other CEvNS projects at the SNS, the ESS or those relying on reactor neutrino fluxes. In this talk I will discuss the different measurements that can be done as well as a recent analysis of the rock neutron background to which the detector will be subject to if operated at Fermilab.

Primary author: ARISTIZABAL, Diego (Universidad Tecnica Federico Santa Maria (USM))

Presenter: ARISTIZABAL, Diego (Universidad Tecnica Federico Santa Maria (USM))

Session Classification: Experiments