EPS-HEP 2017



Contribution ID: 723

Type: Poster Presentation

The DUNE Far Detector

DUNE, the DEEP Underground Neutrino Experiment, will be a groundbreaking experiment for long-baseline neutrino oscillation studies, and for neutrino astrophysics and nucleon decay searches. Planning of DUNE continues to proceed rapidly. The DUNE Far Detector will consist of four 10-kiloton fiducial volume modular liquid argon time-projection chambers (LArTPC) placed deep underground at the Sanford Underground Research Facility in Lead, South Dakota, USA. The Far Detector will be coupled to the LBNF multi-megawatt wide-band neutrino beam planned for Fermilab. The LArTPC technology allows for detailed reconstruction of neutrino interaction and nucleon decay final states over an energy range from a few MeV to many GeV, providing high resolution vertex determination, precision charged particle tracking, particle identification, and calorimetry. Photon detector systems embedded within the LArTPC have reached advanced stages; and these designs will be tested through a full-scale prototyping program called ProtoDUNE, to be executed at CERN over the next few years.

Experimental Collaboration

DUNE

Primary author:GARCIA-GAMEZ, DiegoPresenter:GARCIA-GAMEZ, DiegoSession Classification:Poster session

Track Classification: Astroparticle Physics