



Contribution ID: 214

Type: **Poster**

ICARUS T-600 and the status of LAr TPC

Friday, 25 May 2012 13:31 (0 minutes)

The ICARUS-T600 detector at LNGS laboratory is the largest Liquid Argon TPC (LAr-TPC) operating in an underground laboratory. Its calorimetric resolution and topology reconstruction capabilities permit a wide physics program, which goes from the study of neutrino oscillation on CNGS neutrino beam to nucleon decay searches. Atmospheric as well as solar neutrinos are also a case of study. A complete review of the last two years data taking will be given, pointing out detector efficiency and event reconstruction. The complete reconstruction of some events will be shown, proving the particles identification, as well as energy measurement capabilities of the LAr technology. A particular emphasis will be given to the ongoing detector's upgrade. These upgrades are aimed at enhancing trigger efficiency in the energy range of nucleon decay and atmospheric neutrinos, by exploiting the detection of deposited charge into the trigger system. Finally, the results of the analysis of the CNGS neutrino events will be presented, including both the measurement of the hadronic and electromagnetic deposited energy and the muon momentum measurement via multiple scattering.

for the collaboration

ICARUS collaboration

Primary author: Mr DEQUAL, Daniele (PD)**Presenter:** Mr DEQUAL, Daniele (PD)**Session Classification:** Experimental Systems without Accelerators - Poster Session**Track Classification:** P7 - Experimental Systems without Accelerators