

# Charge and light readout characterization in a prototype liquid xenon time projection chamber for nEXO experiment

*Saturday, 2 December 2017 17:10 (20 minutes)*

The nEXO collaboration is designing a 5-tonne xenon time projection chamber (TPC) using enriched Xe-136 isotope to search for neutrinoless double beta decays. Both the light and charge signals from interactions in the TPC will be collected. nEXO collaboration is developing and testing new technologies to improve charge and light collections, which include using a new design of anode consisting of an array of tiles for charge readout and silicon photomultipliers for light readout. I will describe our R&D work on testing and characterizing these new components in a prototype liquid xenon TPC.

## Session

Works in Progress (15+5 min)

**Primary author:** Dr LI, Gaosong (Stanford University)

**Presenter:** Dr LI, Gaosong (Stanford University)

**Session Classification:** Works in Progress