



Contribution ID: 449

Type: **Poster**

## **The SuperNEMO Light Injection & Monitoring System**

*Monday, 8 August 2016 18:30 (2 hours)*

SuperNEMO is the successor of the NEMO-3 experiment and will search for the hypothetical process of  $0\nu\beta\beta$  by combining tracking and calorimetric measurements. The SuperNEMO calorimeter consists of 712 optical modules made of scintillator blocks directly coupled to photomultiplier tubes.  $^{207}\text{Bi}$  sources will be used to calibrate the energy scale of the calorimeter in dedicated calibration runs separated by a few weeks. In between these runs, a Light Injection (LI) system will guarantee the stability of the calorimetric response to 1%. The LI system injects pulsed LED light into each scintillator block via optical fibers. A reference optical module is used to monitor the light level against a  $^{241}\text{Am}$  source. This poster will describe in detail the LI system and its performance.

**Primary author:** LE NOBLET, Thibaud (LAPP)

**Co-author:** Mr CESAR, John (University of Texas, Austin)

**Presenter:** LE NOBLET, Thibaud (LAPP)

**Session Classification:** Poster Session

**Track Classification:** Neutrino Physics