Contribution ID: **491** Type: **Poster**

Physics potential with LiquidO

The LiquidO detection technique falls on the light confinement near its creation point by using an opaque liquid scintillator and on the light collection by a dense array of fibres. This technique enables highly efficient particle identification with the consequent event-by-event topological discrimination power, including positron, electron and gamma events. With the potential background rejection capability and the possibility of loading dopants at high concentrations, since transparency in no longer required, LiquidO opens up the possibility of a large number of new physics measurements. The poster will present the neutrino detection potential at the MeV-scale, with LiquidO projects ranging from understanding the nature of the neutrino itself, to addressing some key neutrino sources such as the earth, the Sun and supernovae core-collapse processes.

Mini-abstract

Neutrino physics with LiquidO at the MeV-scale

Experiment/Collaboration

LiquidO Collaboration

Primary authors: SERAFINI, Andrea (University of Ferrara, INFN Ferrara); Dr NAVAS NICOLÁS, Diana (IJCLab)

Co-authors: Dr CABRERA, Anatael (CNRS/IN2P3 - APC & LNCA Laboratories (France)); MANTOVANI, Fabio (University of Ferrara and INFN); CHEN, Mark (Queen's University); STRATI, Virginia (University of Ferrara, INFN Ferrara)

Presenters: SERAFINI, Andrea (University of Ferrara, INFN Ferrara); Dr NAVAS NICOLÁS, Diana (IJCLab)

Session Classification: Poster session 3