Contribution ID: **87** Type: **Working Group Sessions**

# JUNO: a Multipurpose Observatory for Neutrino Physics

*Tuesday, 20 June 2017 14:30 (20 minutes)*

The Jiangmen Underground Neutrino Observatory (JUNO) is a 20 kton liquid scintillator detector that will study reactor antineutrinos emitted from two nuclear power plants in the south of China at a baseline of about 53km. With an unprecedented energy resolution, JUNO will be able to determine the neutrino mass ordering at 3-4 sigma significance within six years of running. JUNO will also be able to measure three out of the six oscillation parameters to an accuracy better than 1%, and to study neutrinos from various terrestrial and extra-terrestrial sources. The experiment is currently under construction, and data-taking is expected to begin by 2020. JUNO's physics program and status will be reviewed in this talk.

**Primary author:** OCHOA, J. Pedro (Pontifical Catholic University of Chile)

**Presenter:** Dr CABRERA, Anatael (CNRS/IN2P3 - APC & LNCA Laboratories (France))

**Session Classification:** Working Group: Neutrino Physics

**Track Classification:** Neutrino Physics Working Group