Contribution ID: **57** Type: **Invited talk**

JUNO' status and future prospects

Monday 28 October 2024 15:55 (30 minutes)

Jiangmen Underground Neutrino Observatory (JUNO), a next generation underground reactor antineutrino experiment, is proposed to determine the neutrino mass hierarchy and precisely measure neutrino oscillation parameters using a massive liquid scintillator detector underground. The experimental hall, spanning more than 50 meters, is under a granite mountain of over 700 m overburden. The central antineutrino detector, built with 35.4-meter diameter acrylic sphere, contains 20 kilotons of liquid scintillator and ~18,000 20 inch PMTs (and ~25,000 3 inch PMTs). The antineutrino detector is placed in a water pool shielding system which also functions as an active water Cherenkov veto detector. On the top of water pool is a Top Tracker system which further improves the muon track reconstruction. The talk will present the project construction status and its future prospects.

Author: Prof. LI, Xiaonan (Institute of High Energy Physics, Chinese Academy of Sciences, Beijing)

Presenter: Prof. LI, Xiaonan (Institute of High Energy Physics, Chinese Academy of Sciences, Beijing)

Session Classification: Invited talks