



Contribution ID: 97

Type: **Oral Presentations**

Status of the 20-inch PMTs for the JUNO experiment

Tuesday, 5 September 2023 16:20 (20 minutes)

The Jiangmen Underground Neutrino Observatory (JUNO) is a multi-purpose neutrino experiment with a 20 kton Liquid Scintillator central detector. The primary goal of JUNO is determination of the neutrino mass ordering by measuring the reactor antineutrinos. There are 20012 20-inch PMTs for JUNO, 17612 for the central detector and 2400 for the outer water-Cherenkov detector. To achieve the unprecedented energy resolution of 3% at 1MeV, the 20-inch PMTs will have high detection efficiency (>27%), high optical coverage (>75%), and high reliability (failure rate < 0.5% in the first 6 years) when running in the water up to 44 m in depth. Testing and Instrumentation of these PMTs have been working for several years, now installation of the PMTs for JUNO has started. In this talk, a summary of the results of PMT testing, waterproof potting and implosion protection will be presented, with a focus on the status of PMT installation and the in-situ test at JUNO.

Primary author: QIN, Zhonghua (Institute of High Energy Physics, CAS)

Presenter: QIN, Zhonghua (Institute of High Energy Physics, CAS)

Session Classification: C2