

Status of the JUNO detector

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The Jiangmen Underground Neutrino Observatory (JUNO) is a multipurpose neutrino experiment under construction. The JUNO detector requires an unprecedented energy resolution of 3% at 1 MeV. It is composed of the central liquid scintillator detector, the water Cherenkov detector and the top tracker. The central detector is a $\phi 35.4$ m acrylic vessel supported by a stainless-steel structure, containing 20-kton liquid scintillator. Scintillation photons are detected by 17612 20" PMTs plus 25600 3" PMTs. The water Cherenkov detector is a cylindrical water pool containing 35-kton of ultra-pure water and equipped with 2400 20" PMTs. The top tracker is to reconstruct the cosmic-ray muon tracks. In addition, a calibration system will calibrate the detector to achieve a better than 1% energy linearity. Currently, installation of the JUNO detector is underway and will be finished in this year. In this talk, a detailed introduction of the JUNO detector and its installation status will be presented.

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