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Status of 20-inch PMT Instrumentation for the JUNO experiment

The Jiangmen Underground Neutrino Observatory (JUNO) is a multi-purpose neutrino experiment which is under construction. The primary goal of JUNO is to determine the neutrino mass ordering and precisely measure the oscillation parameters by reactor anti-neutrinos. There will be about 20000 20-inch PMTs equipped for JUNO, which include 15000 MCP-PMTs and 5000 dynode-PMTs. To achieve the designed 3% energy resolution, the PMTs are required to have high photon detection efficiency, high optical coverage, and low failure rate during JUNO running. Instrumentation of these PMTs for JUNO includes PMT testing, high-voltage divider production, waterproof potting, chain implosion protection, and finally their installation to the detector. At the moment, a final design on how to instrument the 20-inch PMTs is determined, and the instrumentation procedure is partly started. In this poster, the current status of the 20-inch PMT instrumentation for JUNO will be presented.

Mini-abstract

JUNO has started its 20-inch PMT instrumentation, including testing, divider, potting and protection

Experiment/Collaboration

JUNO

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