

## the 20-inch PMT instrumentation for the JUNO experiment

### Authorship annotation

for the JUNO collaboration

### Session and Location

Monday Session, Poster Wall #170 (Ballroom)

### Abstract content

the Jiangmen Underground Neutrino Observatory (JUNO) is a multi-purpose neutrino experiment under construction. The primary goal is to determine the neutrino mass hierarchy and precisely measure the oscillation parameters by detecting reactor anti-neutrinos. There will be around 20000 PMTs with a large photo-cathode of 20-inch equipped for the JUNO experiment, which includes 15000 MCP PMTs from NNVT and 5000 Dynode PMTs from Hamamatsu. To achieve 3% energy resolution, the PMTs are required to have high detection efficiency ( $>27\%$ ) and very tight positioning (optical coverage  $>75\%$ ) in the JUNO detector. The 20-inch PMT instrumentation includes PMT performance testing, design of high voltage divider, waterproof potting, chain implosion protection, and installation to the detector. In this poster, all contents mentioned above will be covered.

### Poster included in proceedings:

yes

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