

Calibration of the JUNO Detector

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The Jiangmen Underground Neutrino Observatory (JUNO), a 20-kiloton liquid scintillator detector equipped with more than 43 thousand photomultiplier tubes, is under construction currently, aiming primarily to determine the neutrino mass ordering by detecting reactor electron anti-neutrinos. To achieve the physics goal, the detector energy resolution should be better than 3% at 1 MeV and the uncertainty of the absolute energy scale is required to be better than 1%. In order to meet these stringent requirements, a comprehensive calibration system comprising the Automatic Calibration Unit, the Cable Loop System, the Guide Tube Calibration System and the Remotely Operated Vehicle is under development to calibrate the energy nonlinearity and energy non-uniformity of central detector. This talk will present the JUNO calibration system status and analysis strategy, including the calibration subsystems hardware progresses as well as the simulation of the JUNO detector response calibration.

Alternate track

I read the instructions above

Yes

Author: LIU, Yankai (Xi'an Jiaotong University)

Co-author: Prof. ZHANG, Qingmin (Xi'an Jiaotong University)

Presenter: LIU, Yankai (Xi'an Jiaotong University)

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