



Contribution ID: 276

Type: poster

A comprehensive PMT characterization system

Photomultiplier tubes are intensively used in high energy physics experiments such as the time-of-flight detector and neutrino observatory. A comprehensive performance evaluation system for Photomultiplier tubes has been built up. The system is able to review diverse cathode and anode properties for PMTs with different sizes and dimensions. Relative and direct methods were developed for the quantum efficiency measurement and the results are consistent with each other. Two-dimensional and three-dimensional scanning platforms were built to test both the cathode and anode uniformity for either the plane type or spherical type photocathode. A Flash Analog-to-Digital Converter module is utilized to achieve high speed waveforms sampling. The entire system is highly automatic and flexible.

Authors: Mr XIA, Jingkai (Institute of High Energy Physics, Chinese Academy of Sciences); Dr QIAN, Sen (Institute of High Energy Physics, Chinese Academy of Sciences)

Presenter: Mr XIA, Jingkai (Institute of High Energy Physics, Chinese Academy of Sciences)

Track Classification: Detector R&D and Data Handling