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The R&D of the MCP based PMTs for High Energy Physics

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Researchers at IHEP have conceived two types of MCP-PMTs for the photon detection in the particle physics. One is the 20 inch Large MCP-PMT (LPMT) with small MCP units in the large area PMTs for the neutrino detection. This LPMT has already mass produced more 13K pieces for the JUNO, and also evaluated by the PMT group in LHAASO and HyperK. Another is the 2 inch Fast MCP-PMT (FPMT) with the fast timing resolution for the particle identification in the collider detector. The FPMT prototypes have produced with 50 ps time resolution, and also the 8X8 readout anode for the position resolution. This talk will introduce all the three types of MCP-PMT and their performance tested in the lab.

In-person participation

No

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