

## R&D of the microchannel plate photomultiplier tubes

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The microchannel plate photomultiplier tube is an important device for particle and nuclear detection due to its high time resolution, resistance to irradiation, strong magnetic fields and irradiation. The timing performance, lifetime, dynamic range, and resistance to strong magnetic fields are carefully studied and enhanced. A series of MCP-PMTs, including the fast MCP-PMT, gated MCP-PMT, long life MCP-PMT, large dynamic range MCP-PMT and position-sensitive MCP-PMT, has been developed in XIOPM and applied to laser fusion and strong pulsed radiation field measurement experiments, as well as serving Super Tam Charm Facility. The concept of a hybrid MCP-PMT with tens of  $\mu\text{m}$  position resolution will be introduced as well.

### Collaboration you are representing

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