WORKSHOP ON PICO-SECOND TIMING DETECTORS FOR PHYSICS



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6 µm pore microchannel plates in a square photomultiplier tube and the integration of TOFPET2 electronics

We present the recently developed 2-inch square multi-anode PMT using 6 μ m pore microchannel plates with results on single photon timing accuracy, gain, uniformity, magnetic field susceptibility, and count rate capability. We also discuss the development combining multi-anode PMTs with the TOFPET2 front-end ASIC; demonstrators of a 256 channel demo system with < 100 ps single photon timing are now built and available with a new commercialized system available in early 2022.

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