

## Performance study of the fast timing Cherenkov detector based on a microchannel plate PMT

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Prototype of the fast timing Cherenkov detector has been developed utilizing a modified Planacon XP85012 MCP-PMT for its use in collider experiments. We present the timing and amplitude characteristics of the prototype obtained with relativistic particles and with fast lasers. Also presented will be the reasons and description of the PMT modification, summary of the detector's response on particle hits at oblique angles, light yield of the MCP window, and amplitude homogeneity across the MCP area.

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