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Veto Development for the PandaX Experiment

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PandaX is a dark matter and neutrino experiment based at the China Jinping Underground Laboratory. It employs a dual-phase liquid xenon TPC to search for dark matter particles and study neutrinoless double-beta decay. Neutron and gamma background events in these searches can be mitigated using an external veto detector. This presentation will provide an update on the operational status of the water Cherenkov veto in the PandaX-4T experiment. Additionally, the research and development efforts for a cold liquid scintillator veto, designed for the next-generation PandaX-xT experiment, will be introduced. Finally, we will present plans to instrument the 4 kton water pit, where the TPC is submerged, with 3-inch PMTs to detect cosmic muons and atmospheric neutrinos.

Collaboration you are representing

PandaX

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