

Updates from the DMTPC directional dark matter experiment

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The Dark Matter Time Projection Chamber (DMTPC) collaboration is developing prototype detectors to measure the energies and directions of nuclear recoils. The intended application is to exploit the expected directional anisotropy of dark matter in the galactic frame to unambiguously observe dark matter induced recoils. The detectors consist of low-pressure CF₄ TPC's with CCD cameras, PMT's, and charge amplifiers for readout. This talk gives an overview of the experiment and describes recent advances in hardware and analysis. It also touches on the collaboration's plans to construct a larger, m³-scale detector within the coming year.

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