

PICO: search for dark matter with bubble chambers

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The PICO collaboration employs bubble chambers filled with fluorocarbon fluids as targets in their active programme searching for dark matter via direct detection. The detectors are situated 2km deep underground at SNOLAB in Canada. Exploiting their insensitivity to electron recoil backgrounds, these detectors exhibit exceptional capability in background rejection.

This talk will present the results from the PICO-60 detector, including a study of interesting and well-motivated dark models proposed, such as inelastic dark matter and photon-mediated dark matter-nucleus interactions. Additionally, the status of the detector PICO-40L, currently operating at SNOLAB, will also be presented. Lastly, the status of the forthcoming ton-scale detector, PICO-500 will be discussed.

Alternate track

I read the instructions above

Yes

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