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The Status of the PICO Dark Matter Search Experiment (I)

Monday 11 June 2018 16:45 (30 minutes)

This talk will present the current status of the PICO dark matter experimental program. The PICO detectors are based on the bubble chamber technology and record potential interactions of WIMPs in the target fluid through phase transitions induced by the energy depositions of recoiling nuclei. The technique is complementary to other dark matter search methods and has lead to several world-leading results for spin-dependent WIMP interactions. The current state of the results from PICO operations will be presented, as well as an update on the status and prognosis for the new detector configuration PICO-40, currently being installed at SNOLAB. The future prospects for a tonne scale "PICO-500"will also be described.

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