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Overview and New Results from the PICO Dark Matter Search Experiment

Friday, 17 February 2023 09:45 (15 minutes)

The PICO collaboration aims to use superheated bubble chambers for the direct detection of dark matter, particularly in the spin-dependent WIMP-proton regime. PICO-40L is the current generation dark matter detector that is currently in the final stages of construction 2km underground at SNOLAB. It will be anticipating first commissioning results and early physics results early next year. The results from PICO-40L are expected to lead to a new world leading limit or discovery of dark matter. They will also inform the design and operation of a much larger next generation detector, PICO-500, currently in the design & fabrication phase. This presentation will be a brief overview on the current status of the PICO experiment and the first physics results.

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