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Status of the PICO-60 Dark Matter Search Experiment

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The PICO collaboration (formerly PICASSO and COUPP) uses bubble chambers for the search for Weakly Interacting Massive Particle (WIMP) dark matter. Such bubble chambers are scalable, can have large target masses and can be operated at regimes where they are insensitive to backgrounds such as beta and gamma radiation.

The PICO-60 experiment is a bubble chamber that has been developed and operated at SNOLAB with 37 kg of CF_3I as a target liquid. The experiment is currently being upgraded for the use with 60 kg of ultra clean C_3F_8 to focus on the search for spin dependent dark matter. The PICO-60 detector is expected to have a world leading sensitivity to spin dependant dark matter interactions. In this talk an overview of the progress of PICO-60 experiment, the results from the dark matter runs with existing data and future plans are presented.

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