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The PICO Experiment

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The PICO collaboration uses bubble chambers to search for dark matter with results leading the world in sensitivity to the direct detection of WIMPs with spin-dependent coupling to protons. PICO recently operated a 32 litre bubble chamber (PICO-60) at the SNOLAB underground laboratory and the next generation experiment is currently taking commissioning data. This new device (PICO-40L) will prove the viability of the “right side up” design and demonstrate the possibility of scaling up to the next ton-scale experiment (PICO-500, currently being designed). A discussion of the technology, recent results, and future plans will be presented.

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Session Classification: T1-4 Direct Detection of Dark Matter (PPD) | Détection directe de la matière sombre (PPD)

Track Classification: Symposia Day - Dark Matter