

Contribution ID: 2686 Type: Oral Competition (Graduate Student) / Compétition orale (Étudiant(e) du 2e ou 3e cycle)

Calibration and Physics Outlook of PICO-40L

Wednesday 5 June 2019 13:30 (15 minutes)

For the last decade, bubble chamber detectors have filled a niche in probing the spin-dependent dark matter parameter space, due to the use of fluorinated targets and the innate rejection of electron recoil events. Located at the SNOLAB underground facility, PICO-40L is the successor to the PICO-60 experiment which produced world-leading WIMP-proton cross section limits, with final results reported earlier this year. The new detector employs an alternative "Right-Side-Up" design which is expected to eliminate backgrounds observed in previous. As of early summer 2019, PICO-40L is expected to be filled and collecting calibration data. The calibration strategy and preliminary results will be presented, along with the physics outlook.

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Session Classification: W2-5 Dark matter searches (PPD) | Recherche de matière sombre (PPD)

Track Classification: Particle Physics / Physique des particules (PPD)