The SuperCDMS at SNOLAB experiment, status and prospects

Friday 19 July 2024 11:03 (18 minutes)

The Super Cryogenic Dark Matter Search (SuperCDMS) SNOLAB experiment is currently under construction 2 km underground at the SNOLAB facility near Sudbury, Canada. Utilizing 24 state-of-the-art cryogenic germanium (Ge) and silicon (Si) detectors, the experiment aims to achieve world-leading sensitivity in the direct search for dark matter (DM) particles interacting with nuclei, spanning masses from 0.5 to 5 GeV/c^2 . Additionally, the experiment will investigate electron scattering of MeV-scale DM particles and the absorption of eV-scale dark photons and axion-like particles (ALPs). This presentation first provides a detailed examination of the experimental setup. The talk proceeds to highlighting recent progress and achievements in the experiment installation, and discusses the world-leading sensitivity expected.

Alternate track

I read the instructions above

Yes

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