

# 27th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY2019)

Contribution ID: 217

Type: **Oral**

## SuperCDMS SNOLAB Status

*Tuesday, 21 May 2019 14:20 (20 minutes)*

There is strong evidence that  $\sim 27\%$  of the energy density of our universe is composed of a dark matter component which has been inferred by observing its gravitational effects. Many well motivated models predict candidate particles with mass below 10 GeV which offer compelling solutions to the dark matter mystery but have yet to be experimentally detected. The Super Cryogenic Dark Matter Search (SuperCDMS) experiment uses cryogenic silicon and germanium crystals instrumented to detect signals produced by such particles, through phonon and ionization measurements using iZIP detectors or by ionization induced Luke-Neganov phonons using HV detectors. After decommissioning of the successful experimental setup at the Soudan Underground Laboratory, focus has shifted to the next phase of SuperCDMS which is now being constructed at SNOLAB in Sudbury, ON Canada. Rapid progress continues towards this new phase, for example the recent successful fabrication of the first full tower of payload detectors. This talk will review the status and plans for the SuperCDMS SNOLAB experiment.

**Primary author:** KUBIK, Andrew Michael (Texas A&M University (US))

**Co-author:** COLLABORATION, SuperCDMS

**Presenter:** KUBIK, Andrew Michael (Texas A&M University (US))

**Session Classification:** Dark Matter, Astroparticle Physics

**Track Classification:** Dark Matter, Astroparticle Physics