



Physics Colloquium



Tuesday, September 24, 2019, 3:30PM in SC 10

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Whispers in the Dark: Searching for Dark Matter with the SuperCDMS Experiment

The existence of dark matter was first postulated in the early 1930s to account for the orbital velocities of stars in the Milky Way and motion in galaxy clusters. Since that time, astrophysicists and astronomers have produced compelling evidence for the existence of dark matter and determined that it constitutes the bulk of the matter in the Universe. Despite this fact, the composition of the dark matter remains unknown. Working in a low-background environment in the Soudan Mine, located in northern Minnesota, the SuperCDMS experiment was designed to directly detect interactions between dark matter and nuclei in its target Ge crystals and operated for over a decade. In this talk, I will explain how the experiment works and share recent results and plans for the next generation SuperCDMS SNOLAB experiment which will begin taking science data in 2020.

Refreshments at 3:00PM in SC 103