

# WIMP Searches with the SuperCDMS Experiment

*Tuesday, 9 June 2015 08:30 (15 minutes)*

Astrophysical observations indicate that approximately 85% of the matter in the universe consists of invisible, non-baryonic dark matter. A well-motivated candidate for this dark matter is the Weakly Interacting Massive Particle (WIMP). The SuperCDMS Soudan experiment is a direct-detection experiment aimed at searching for rare WIMP-nucleon interactions using a 9-kg array of germanium crystal detectors. SuperCDMS Soudan has collected 2.5 years worth of data from near-continuous operation since March of 2012, and has conducted low-mass WIMP searches using a subset of the dataset. I will present a brief overview of these previous low-mass searches, and the current status of our ongoing high-mass ( $M > 15 \text{ GeV}/c^2$ ) WIMP search which utilizes the entire dataset.

## Is this an abstract for a New Perspectives presentation?

Yes

## Is this an abstract for a Users Meeting Poster?

No

**Primary author:** WELLIVER, Bradford (University of Florida)

**Presenter:** WELLIVER, Bradford (University of Florida)

**Session Classification:** Session 5 - Astrophysics and the Dark Sector