

The DAMIC Experiment at SNOLAB and beyond

Saturday, 30 June 2018 14:30 (30 minutes)

The Dark Matter in CCDs (DAMIC) Collaboration takes advantage of developments made in the realm of astronomical imaging technology to perform searches for a variety of dark matter candidates with masses below $10 \text{ GeV}/c^2$ using silicon CCDs. An array of 7, $675\text{-}\mu\text{m}$ thick silicon CCDs, representing ~ 40 grams of mass, has been collecting data at SNOLAB since early 2017. The collaboration has engaged in an extensive campaign of characterization efforts to understand the response of these CCDs to low-energy nuclear recoils and their unique capabilities, including the use of high spatial resolution for both the rejection and study of backgrounds. This talk will discuss the devices and the current status of the DAMIC at SNOLAB experiment, as well as plans for the next-generation DAMIC-M Experiment, which will deploy 1 kg of improved CCDs to the Modane Underground Laboratory.

Co-Authors (Collaboration)

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