

Abstract Submitted
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Status of the DAMIC-M Dark Matter Search Experiment PITAM MITRA, University of Washington, DAMIC-M COLLABORATION — The DAMIC (Dark Matter In CCDs) experiment employs charge coupled devices (CCDs) to search for dark matter. The DAMIC Collaboration pioneered the search for nuclear and electronic recoils from low-mass dark matter particles interacting in the bulk silicon of CCDs with a 40g detector operated at the SNOLAB underground laboratory. The DAMIC-M experiment is the successor to DAMIC at SNOLAB and will be installed at the Laboratoire Souterrain de Modane (LSM) in France. The detector will feature the most massive array of CCDs ever built with a significant improvement in the CCD readout stage that allows for the non-destructive, repetitive measurement of the pixel charge to achieve the resolution of single charges. With a significantly larger exposure and lower energy threshold, DAMIC-M will advance by several orders of magnitude the exploration of the dark matter particle hypothesis, in particular of candidates pertaining to the so-called “hidden sector.” In this talk, I will summarize the progress of the DAMIC-M experiment.

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