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The Search for Light Dark Matter with DAMIC

PITAM MITRA, University of Washington

Millimeter-thick charge-coupled devices (CCDs) are outstanding particle detectors. Although initially developed for near-infrared astronomy, the low pixel noise also makes them the most sensitive detectors to signals from ionizing radiation. By virtue of their very low energy threshold (~ 100 eV of ionizing energy) and their unique capabilities for background characterization based on their high spatial resolution, CCDs are poised to become the leading technology in the search for a wide variety of dark matter candidates with masses in the range 1 eV–10 GeV. I will present the status of the completed seven-CCD array of DAMIC at SNOLAB and the recent progress toward DAMIC at Modane (DAMIC-M), a lower-background 1-kg CCD dark matter detector with an ionization threshold of 2 electrons.