

Abstract Submitted
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Background Controls for the DAMIC-M Dark Matter Search

DANIEL BAXTER, University of Chicago, DAMIC-M COLLABORATION — The DAMIC-M detector will use fully-depleted silicon charge-coupled devices (CCDs) to search for low mass dark matter. The detector will combine the excellent understanding of CCD backgrounds from DAMIC at SNOLAB with ongoing developments in the single-electron resolution of Skipper amplifiers to provide unprecedented sensitivity to light dark matter particles. The DAMIC-M program takes advantage of the unparalleled capability to reject events from radioactivity in the CCDs by exploiting spatial coincidences within a decay chain over timescales as long as months. This, combined with aggressive controls over detector design and material selection, will allow DAMIC-M to probe new models of light dark matter.

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