Abstract Submitted for the APR15 Meeting of The American Physical Society

Trigger Efficiency Calculation from the Second Run of CDM-Slite. ALEXANDER LEDER, MIT, CYROGENIC DARK MATTER SEARCH - CDMS COLLABORATION — The Cyrogenic Dark Matter Search - Low Ionization Threshold Experiment (CDMSlite) is a dark matter direct detection experiment that utilizes Neganov-Luke phonon amplification to achieve a very low, sub-keV ionization energy threshold. In order to characterize the vital low energy response for the CDMSlite mode, we analyzed datasets corresponding to exposure from various calibration sources taken between February and May 2014. Building upon our previous CDMSlite result and taking advantage of improved instrumentation in this new dataset, we measured the trigger efficiency for a larger 70 V bias voltage. This talk discusses the event selection and maximum likelihood analysis of this trigger efficiency estimate.

Alexander Leder MIT

Date submitted: 06 Jan 2015 Electronic form version 1.4