



## Improving the Energy Sensitivity of Massive Calorimeters to Search for Light Mass Dark Matter

**Main author:**

PYLE Matt, University of California Berkeley

The kinetic energy transferred to nuclei during elastic scattering with a light mass dark matter candidate (100MeV-5GeV) is below the experimental energy threshold of current generation direct detection experiments and consequently, vast unexplored areas of parameter space could become accessible over the next decade with significant improvements in the sensitivity of large mass calorimeters.

In this talk, we discuss the progress made in achieving these sensitivity improvements by SuperCDMS over the past 3 years and why we believe an additional 2 orders of magnitude improvement in energy sensitivity will be achievable over the next decade.