

# CU Physics Department Particle Seminar

Wednesday, April 28, 2010 831 Pupin Hall 2:30 PM

## Results from the Final Runs of the CDMS II Experiment

The Cryogenic Dark Matter Search (CDMS) collaboration has pioneered the use of ionization and athermal phonon signals to discriminate between signal (nuclear recoil) and background (electron recoil) events in germanium crystals cooled to  $\sim 50$  mK. Timing, ionization yield, and position information allow us to maximize discovery potential by achieving a background expectation of less than one event. The final runs of the CDMS II experiment in the Soudan Underground Laboratory located in northern Minnesota include an additional  $\sim 600$  kg-days of raw exposure of our germanium detectors. I will present results from the recently unblinded analysis of this data, report on the significance of these new results, and discuss the implications for future dark matter direct detection experiments.



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