

Abstract Submitted  
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**Search for Annual Modulation in CDMS II** DANIELLE SPELLER,  
University of California, Berkeley, SUPERCDMS COLLABORATION — Weakly Interacting Massive Particles (WIMPs) are one of the leading candidates for the undetected mass component comprising  $\sim 27\%$  of the observable universe. An excess in the nuclear-recoil event rate measured by a detector, combined with an annual periodicity introduced by the revolution of the Earth about the Sun, is an important indicator of the direct detection of particle dark matter. The Cryogenic Dark Matter Search (CDMS) experiment uses semiconductor crystals to search for WIMPs scattering from atomic nuclei through the simultaneous measurement of ionization and athermal phonons. This technique has achieved excellent discrimination between nuclear recoils (expected for WIMP interactions) and radioactively induced electron recoils, enabling a sensitive search for an annually modulating signal. I will discuss updated results of this search, including possible systematic effects, and describe implications for interpretations of other experimental results such as those from the CoGeNT experiment.

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