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Abstract for an Invited Paper for the APR08 Meeting of the American Physical Society

Results and Prospects for Direct Dark Matter Detection via Cryogenic Techniques JODI COOLEY, Stanford University

Overwhelming observational evidence indicates that most of the matter in the Universe consists of non-baryonic, particle dark matter. One compelling candidate for particle dark matter is the Weakly Interacting Massive Particle (WIMP). After reviewing some of the evidence for dark matter and the WIMP hypothesis, I will describe current cryogenic techniques used to search for dark matter. I will present recent results from the Cryogenic Dark Matter Search (CDMS) in the Soudan Mine, MN, review the results of several other cryogenic experiments, and give prospects for future cryogenic dark matter experiments.