



CERN Joint EP/PP Seminars

SPEAKER: Jodi Cooley (Stanford)
TITLE: **Recoiling Against the Dark Universe: CDMS
and the Hunt for Dark Matter**
DATE: Tue 07/07/2009 14:30
PLACE: Council Chamber **

ABSTRACT

The first evidence for dark matter dates back to observations of the Coma cluster made by Fritz Zwicky in 1933. Since that time, astrophysicists and astronomers have produced compelling evidence for the existence of dark matter and determined that it constitutes the bulk of the matter in the Universe. Despite this fact, the composition of the dark matter remains unknown. One compelling candidate for particle dark matter is the Weakly Interacting Massive Particle (WIMP). Working in a low-background environment in the Soudan Mine, located in northern Minnesota, the CDMS experiment is designed to directly detect interactions between WIMPs and nuclei in its target Ge and Si crystals. In this talk I will present the latest results from the CDMS experiment. I will also discuss the current status of SuperCDMS, a 15-kg experiment which is planned for operation in the existing CDMS experimental setup in Soudan, MN and plans for larger future crystal detectors.