Please Post

THE UNIVERSITY of WISCONSIN MADISON

Department of Physics

Friday, January 29, 2010 • 4:00 P.M. • 4247 Chamberlin Hall

cookies & coffee served at 3:30 p.m

Special Cryogenic Dark Matter Search Seminar

Results from the Cryogenic Dark Matter Search Experiment

Oleg Kamaev

University of Minnesota

Host: Heeger

The Cryogenic Dark Matter Search (CDMS) experiment uses solid-state detectors operated near 40 mK to search for Weakly Interacting Massive Particles (WIMPs). The experiment measures the ionization and athermal phonons from particle interactions to discriminate candidate (nuclear recoil) from background (electron recoil) events with a rejection factor of better than 10^6. I will present results from the recent blind analysis of data from 612 kg-days of raw exposure using the Ge detectors operated in the Soudan Underground Laboratory.

I will also report on the operation of a recently installed tower of larger Ge detectors with improved phonon readout and discuss R&D work for the next generation of CDMS detectors.