## NANOHOUR

Wednesday, November 10, 2010 3:00 pm Beckman Institute - Room 3269

## Engineering Phonon Transport in Thermoelectrics and Nano-Phononics

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Phonons are the dominant heat carriers in a dielectric solid. The past decade has seen fundamental advances in how we engineer phonons and consequently control heat flow. Starting from the thermal management of advanced electronics, the emphasis in phonon transport research has shifted to thermoelectric energy conversion for harnessing energy from waste heat. In this talk, we will describe the current effort at UIUC to explore a novel thermoelectric architecture using silicon nanostructures on a flexible substrate. In the latter part of the seminar, we will discuss the concept of nano-phononic materials that control the transport of heat/sound in the coherent regime.



Coffee and cookies will be served http://nanohour.beckman.illinois.edu