

Chez Pierre

Presents ...

Friday, February 15, 2013

10:00am

MIT Room 4-331



SPECIAL CHEZ PIERRE SEMINAR

Yuki Sato

Harvard University– Rowland Institute

“Device engineering with quantum and/or artificial materials”

Utilizing quantum and/or artificially engineered materials, one can induce properties not typically found in nature. In this talk, I will first describe an interferometer based on the superfluid helium Josephson oscillation phenomenon and discuss its novel applications including absolute rotation sensing. I will then describe how artificial materials engineered by arranging ordinary materials can often transcend their fundamental limitations. In particular, I will discuss manipulating heat conduction with prescribed anisotropy.