Chez Pierre

Presents ... Tuesday, November 29, 2011 12:00pm MIT Room 4-331



SPECIAL CHEZ PIERRE SEMINAR

Naoto Nagaosa University of Tokyo

"New results on Rashba systems - Topological insulator and superconductors -"

Rashba spin-orbit interaction occurs in the noncentrosymmetric systems, which lifts the spin degeneracy at each k-point in the 1st BZ. This leads to various novel physical effects such as the spin Galvanic effect and coupling between current and spins. However, the Rashba system has been considered to be topologically trivial.

In this talk, I will talk about the topological insulator and superconductor based on the Rashba interaction with the candidate realistic materials.

Also a new spin conservation law in Rashba system will be discussed.