

Massachusetts Institute of Technology
Department of Physics

Condensed Matter Theory Seminar

"When do interactions with Goldstone bosons lead to non-Fermi liquids?"

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Abstract: There are few general physical principles that protect the low-energy excitations of a quantum phase. Of these, Goldstone's theorem and Landau-Fermi liquid theory are the most relevant to solids. In this talk, I will present a general analysis of when non-Fermi liquid behavior can arise in electronic systems due to coupling to Goldstone modes. We unify previously known cases using a single criterion and predict a new candidate involving phonons under a magnetic field. I will also briefly talk about time crystals.

***3:00pm**
Tuesday, November 18, 2014
***Duboc Seminar Room (4-331)**

Host: Senthil Todadri