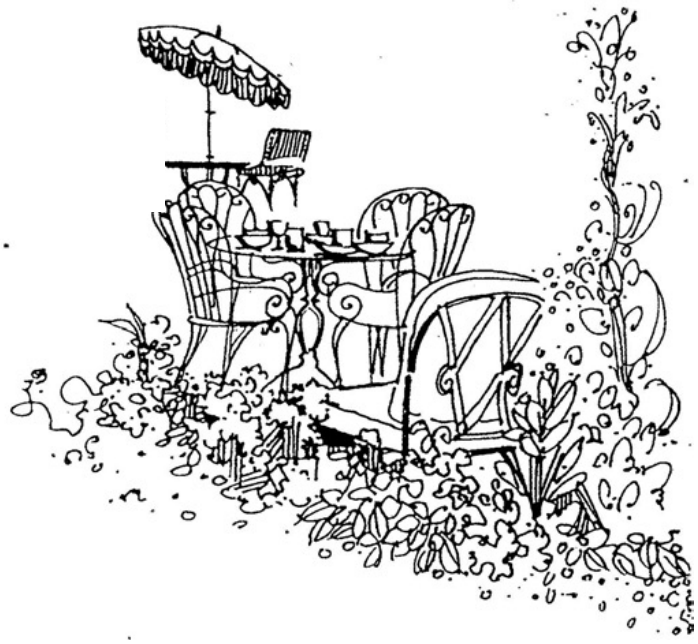
Chez Pierre

Presents ...

Monday, November 16th 2026
12:00 pm - 1: 00 pm
Duboc room - 4-331



Chez Pierre Seminar

Ian Fisher, Stanford University

” Multipolar Order: Dynamics and Thermodynamics with AC strain and AC fields”.

I will describe how to measure the dynamic multipole susceptibility of materials, and how to understand the associated complex response functions. As an initial test, we apply these ideas to extract the intrinsic spin-lattice relaxation rate of YbVO4. We then apply these tools to study quadrupole order and dynamics in TmVO4, finding evidence for a quadrupolar glass. If time allows, I will finish by discussing the field-tuned quadrupolar quantum phase transition in this material.

This is ultimately a talk about symmetry and about response functions, and how these paradigms can motivate new experimental approaches. As always, new tools lead to new insights.