

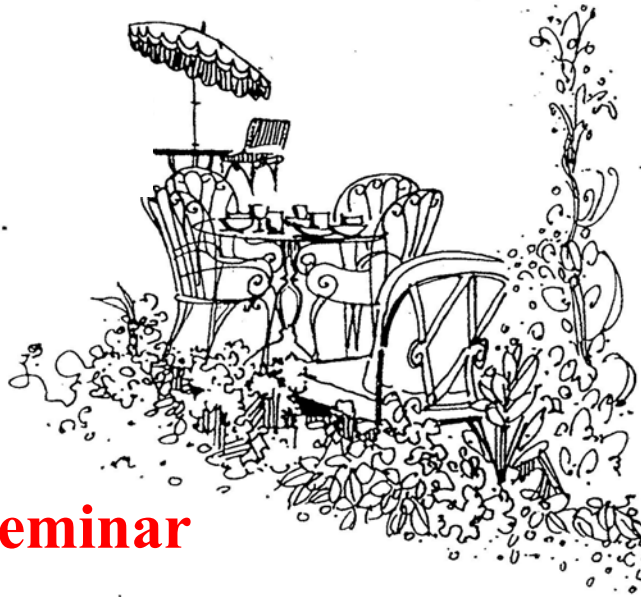
Chez Pierre

Presents ...

Monday, May 11, 2020

12:00pm Noon

Broadcast via Zoom



Chez Pierre Seminar

Adrian Po – Massachusetts Institute of Technology

"Symmetry indicators for topological materials"

Many weakly correlated topological phases can be diagnosed by analyzing a suitable collection of symmetry data. While the Fu-Kane parity criterion for topological insulators is an early example, the systematic generalization to cover all possible crystalline symmetries and their associated topological phases has only been achieved recently. Interestingly, a key step in the generalization is to recognize the importance of understanding the entanglement-free product states: once these trivial phases are completely mapped, the topological ones are naturally exposed as the “remainders.” The theory of symmetry indicator is one approach for systematically analyzing this “remainder problem.” In this talk, we will first discuss how the theory applies to topological (crystalline) insulators and semimetals, and then discuss how it can be generalized to cover superconductors.