



"Tango" A sculpture by Larry Young, located at the Wandell Sculpture Garden at Meadowbrook Park in Urbana, Illinois.
Photo by Timothy A. Bartlett.

Workshop on Quantum Matter: Interactions, Topology, and Quantum Chaos

November 9-10, 2018



NOTE: Schedule subject to change

<http://icmt.illinois.edu/Workshops/JointWorkshopPerimeter/>
<http://www.icmt.illinois.edu/>
<http://physics.illinois.edu/>

Institute for Condensed Matter Theory
University of Illinois at Urbana Champaign

&

Perimeter Institute for Theoretical Physics
Waterloo, Ontario, Canada

Friday, November 9, 2018

- 8:45 am Welcome & Announcements – *190 ESB*
Eduardo Fradkin (U. of Illinois)
- 9:00 am **Barry Bradlyn** (U. of Illinois)
“Wilson Loops, Wyckoff Positions, and Wannier Functions: New Developments in Stable and Fragile Topology?”
- 09:45 am **Aris Alexandradinata** (U. of Illinois)
“A topological perspective on the spin degeneracy of Landau levels”
- 10:30 am **Coffee Break - 2nd floor Commons ESB**
- 11:00 am **Yizhi You** (Princeton U.)
“Fracton phase of matter: Lattice models, gauge theories and realizations”
- Noon **Lunch** –
- 1:30 pm **Coffee, Discussion and Poster Session**
2nd floor Commons ESB
- 3:00 pm **Shivaji Sondhi** (Princeton U.)
“ETH without Thermalization
- 3:45 pm **Yin Chen He** (Perimeter)
“Field-induced neutral Fermi surface and QCD3 quantum criticalities in Kitaev materials.”
- 4:30 pm **Coffee Break – 2nd floor Commons ESB**
- 5:00 pm **Bryan Clark** (U. of Illinois)
“Resonances and Renormalizing Tensor Networks in Many Body Localization”
- 5:45 pm **Boris Altshuler** (Columbia U.)
TBD
- 6:30 pm **Discussions - 2nd floor Commons ESB**
- 7:30 pm **Dinner** (by invitation) – *Timpone’s*

Saturday, November 10, 2018

- 9:00 am **Ehud Altman** (UCSB)
“Is Quantum Thermalization Dynamics Computable?”
- 10:00 am **Coffee Break – 2nd floor Commons ESB**
- 10:30 am **Beni Yoshida** (Perimeter)
“Scrambling and information problem”
- 11:15 am **Tim Hsieh** (Perimeter)
“Variational Approach for Quantum State Preparation”
- Noon **Lunch – 2nd floor Commons ESB**