

Joint Perimeter-Urbana Workshop
Topology, Entanglement and Strong Correlations in Condensed Matter

Thursday, November 8, 2012

- 8:45 am Welcome & Announcements – *190 ESB*
Eduardo Fradkin
- 9:00 am **Steve Kivelson** (Stanford)
“Which spin liquid is it?”
- 10:00 am Coffee Break – *2nd floor Commons ESB*
- 10:30 am **Guifre Vidal** (Perimeter)
“Extracting the emergent anyon model from a microscopic Hamiltonian”
- 11:15 am **Xiao-Gang Wen** (Perimeter/MIT)
“Highly entangled quantum matter”
- Noon Lunch – *2nd floor Commons ESB*
- 1:30 pm Concurrent Discussion Sessions
A. Topological phases and spin liquids – *190 ESB*
B. Physics of Majorana fermions and beyond – *3110 ESB*
- 2:30 pm Coffee & Poster Session – *2nd floor Commons ESB*
- 4:00 pm **Chetan Nayak** (Microsoft Station Q)
“Topological and ‘almost’ topological phases”
- 5:00 pm Coffee Break – *2nd floor Commons ESB*
- 5:30 pm **Eduardo Fradkin** (Illinois)
“Effective field theory of topological insulators”
- 6:15 pm **Taylor Hughes** (Illinois)
“Torsional anomalies and viscosity response in topological insulators”
- 7:30 pm Dinner (by invitation) – *Timpone’s*

Friday, November 9, 2012

- 9:00 am **Shamit Kachru** (Stanford)
“New horizons in black hole physics and holography”
- 10:00 am Coffee Break – *2nd floor Commons ESB*
- 10:30 am **Sung-Sik Lee** (Perimeter)
“From renormalization group to emergent gravity: holographic description of quantum many-body matter”
- 11:15 am **Shinsei Ryu** (Illinois)
“Holography and entanglement renormalization”
- Noon Lunch – *2nd floor Commons ESB*
- 1:00 pm Concurrent Discussion Sessions
A. Quantum entanglement – *190 ESB*
B. Holographic approach to quantum phases – *3110 ESB*
- 2:30 pm Coffee Break – *2nd floor Commons ESB*