

30 years of AKLT: Interacting Systems in Low Dimensions

INTERNATIONAL SYMPOSIUM CELEBRATING 30 YEARS OF
THE AFFLECK-KENNEDY-LIEB-TASAKI PARADIGM

Vancouver, BC, April 26 - 28, 2018

VENUE

All talks will take place in room 1221, Forest Sciences Building on The University of British Columbia Vancouver Campus. Registration, coffee breaks and lunches will take place in the lobby of the same building.

SYMPOSIUM SCHEDULE

Thursday

8:30 Registration begins
8:45-9:00 Introduction and Welcome by SBQMI Director Andrea Damascelli

9:00-9:30 M. Oshikawa (Tokyo) “*AKLT and beyond: Ian Affleck's contributions to 1D quantum many-body physics*”

9:30-10:00 M. Hagiwara (Osaka) “*Experimental verification of AKLT model and Affleck-Haldane conjecture for spin-1 1D antiferromagnets*”

10:00-10:30 F. Mila (Lausanne) “*Generalization of the Haldane conjecture to SU(3) chains*”

10:30-11:00 Coffee Break

11:00-11:30 H. Tasaki (Gakushuin) “*Rigorous results on topological phase transition in valence-bond ground states*”

11:30-12:00 C. Broholm (Baltimore) “*The Quest for a Quantum Spin Liquid*”

12:00-13:30 Lunch

13:30-14:00 J.-S. Caux (Amsterdam) “*Wires and chains: the dance of field theory and integrability*”

14:00-14:30 S. Eggert (Kaiserslautern) “*The dynamic structure factor in impurity-doped spin-1/2 chains*”

14:30-15:00 J. Sirker (Manitoba) “*Transport in integrable lattice models*”

15:00-15:30 Coffee Break

- 15:30-16:00 J. Cardy (Berkeley) “*The $TT\bar{t}$ deformation of quantum field theory and some applications*”
- 16:00-16:30 N. Seiberg (Princeton) “*QED₃*”
- 16:30-17:00 E. Sela (Tel Aviv) “*Can one simultaneously measure entanglement and charge of many body systems?*”

17:30 Dinner (self organized)

Friday

- 9:00-9:30 B. Marston (KITP/Brown) “*El Niño as a Topological Insulator: A Surprising Connection Between Climate, and Quantum Physics*”
- 9:30-10:00 C. Kallin (McMaster) “*The Anomalous Hall Effect in Chiral Superconductors*”
- 10:00-10:30 D. Giuliano (Calabria) “*Effects of a Majorana mode at a junction between a topological superconductor and quantum nanowires*”

10:30-11:00 Coffee Break

- 11:00-11:30 B. Halperin (Harvard) “*Particle-Hole Symmetry in a Half-Filled Landau Level*”
- 11:30-12:00 C. Chamon (Boston) “*Non-Abelian topological phases in three spatial dimensions from coupled wires*”

12:00-13:30 Lunch

13:30-15:00 Free afternoon

15:00-15:30 Coffee Break

- 15:30-16:00 I. Affleck (Vancouver) “*Majorana-Hubbard model in two dimensions*”
- 16:00-16:30 M. Franz (Vancouver) “*Tabletop black hole: A proposal for experimental realization of the SYK model*”
- 16:30-17:00 D. Pikulin (Santa Barbara) “*Charging energy of a Majorana Cooper pair box*”

18:00 Symposium Dinner (Bus leaves at 17:30 from Forestry building).

Saturday

9:30-10:00 S. White (Irvine) *“Critical behaviour in hydrogen chains from electronic structure calculations”*

10:00-10:30 E. Sorensen (McMaster) *“Dynamics and Critical Scaling at the Superconductor to Insulator Transition”*

10:30-11:00 Coffee Break

11:00-11:30 P. Simon (Paris) *“Exploring a quantum phase transition with a Kondo circuit”*

11:30-12:00 R. Pereira (Natal) *“Chiral fixed point and three-channel Kondo effect in Y junctions of Heisenberg spin chains”*

12:00-13:30 Lunch

13:30 Departure