

Highly correlated electronic systems and quantum impurities: Workshop in the memory of Prof. Avi Schiller

Dear Colleagues,

On June 11-12, 2014 we will hold a scientific workshop in the memory of our friend and colleague, Prof. Avi Schiller. The workshop will take place at the Racah Institute of Physics (Danciger B building seminar room), the Hebrew University of Jerusalem (Edmond J. Safra Campus, Givat Ram).

Workshop Program:

Wednesday, June 11, 2014:

9:00 - 9:30 **Gathering and coffee**

9:30 - 9:40 Opening remarks: **Baruch Meerson**, Head of the Racah Institute

Scientific Session I (Chair: **Natan Andrei**)

9:40 - 10:05 **Frithjof Anders**: Spatial and temporal propagation of Kondo correlations

10:05 - 10:30 **Gergely Zarand**: The Shiba molecule

10:30 - 10:55 **Eran Sela**: Non-Fermi liquid physics in two-channel Kondo models

10:55 - 11:20 **Coffee break**

Scientific Session II (Chair: **Richard Berkovits**)

11:20 - 11:45 **Ady Stern**: Engineered non-abelian anyons beyond Majorana fermions

11:45 - 12:10 **Vyacheslavs Kashcheyevs**: Gradual quench of tunneling in a dynamic quantum dot

12:10 - 12:35 **Moshe Goldstein**: Helical edge resistance introduced by charge puddles

12:35 - 14:30 **Lunch break**

Scientific Session III (Chair: **Eldad Bettelheim**)

14:30 - 14:55 **Matthias Vojta**: Quantum phase transitions in impurity models: What is needed to spoil the quantum-to-classical correspondence?

14:55 - 15:20 **Yuval Vinkler**: From thermal equilibrium to nonequilibrium quench dynamics: conserving approximation for the interacting resonant-level

15:20 - 15:45 **Eva Andrei**: Kondo screening in graphene

15:45 - 16:10 **Coffee break**

Memorial Session (Chair: **Frithjof Anders**)

16:10 - 16:20 **Vilen Zevin**

16:20 - 16:30 **Natan Andrei**

16:30 - 16:40 **Joe Imry**

16:40 - 16:50 **Amnon Aharony**

16:50 - 17:00 **Ora Entin**

17:00 - 17:10 **Dotan Goberman** or **Eitan Edelstein**

Thursday, June 12, 2014:

9:20 - 9:40 **Gathering and coffee**

Scientific Session IV (Chair: **Amnon Aharony**)

9:40 - 10:05 **Vaclav Spicka**: Many-body electron systems out of equilibrium

10:05 - 10:30 **Yigal Meir**: Kondo effects in quantum point contacts

10:30 - 10:55 **Karen Michaeli**: Signature of topological superconductivity in quantum spin Hall/superconductor Josephson junctions

10:55 - 11:20 **Coffee break**

Scientific Session V (Chair: **Nadav Katz**)

11:20 - 11:45 **Efrat Shimshoni**: Superfluid-Insulator transition of quantum Hall domain walls in bilayer graphene

11:45 - 12:10 **Erez Berg**: Spontaneous layer polarization and conducting domain walls in bilayer graphene

12:10 - 12:35 **Hadar Steinberg**: Transport and tunneling in topological insulator hybrid devices

12:35 - 14:30 **Lunch break**

Scientific Session VI (Chair: **Ora Entin**)

14:30 - 14:55 **Assa Auerbach**: Dynamics in Strongly Fluctuating Superconductors

14:55 - 15:20 **Yuval Oreg**: Non-Abelian topological insulators from an array of quantum wires

15:20 - 15:45 **Eytan Grosfeld**: Vortices in p-wave superconductors

15:45 - 16:10 **Coffee break**

Scientific Session VII (Chair: **Ofer Biham**)

16:10 - 16:35 **Dganit Meidan**: A scattering matrix formulation of the topological index of interacting fermions in one-dimensional superconductors

16:35 - 17:00 **Dror Orgad**: Transverse Thermoelectric Response of an Interacting Quasi-One-Dimensional Electronic System in a Magnetic Field

We look forward to seeing you.

With Best Regards,

The Organizing Committee:

Amnon Aharony, Frithjof Anders, Natan Andrei, Ofer Biham,

Ora Entin, Joe Imry and Vaclav Spicka