

Program: Dynamics and Transport in Quantum Matter

Time	Sunday 8/6	Monday 9/6	Tuesday 10/6	Wednesday 11/6
09.30-10.00	Welcome	Demler	Mukerjee	Orgad
10.00-10.30	Arovas	Koch-Janusz /Kimchi	Parameswaran	Dagan
10.30-11.00	Kenneth		Shimshoni	Pal/Vinkler
11.00-11.30	Coffee	-	-	-
11.30-12.00	Moore	Drachuk/Ellis	Cavalleri	Ruhman / Arbel
12.00-12.30	Klich	Imry	Meidan	Grosfeld
12.30-13.00	Lindner	Randeria	Bachar/Seabra	Altman
13.00-14.30	Lunch	-	-	-
14.30-15.00	Trivedi	Colloquium:	CM Seminar:	Oganesyan
15.00-15.30	Sherman/Gazit	Moore	Haldane	Alicea
15.30-16.00	Kanigel	Coffee	Coffee	Fidkowski
16.00-16.30	Coffee	Bloch	Steinberg	Coffee
16.30-17.00	Meir	Polturak	Zarand	
17.00-17.30	Oreg	Podolsky	Goldstein	
17.30 - 1800				

I. SPEAKERS AND TITLES

1. Dan Arovas, UCSD, Integer characterization of topological phases at finite temperature using Uhlmann's parallel transport
2. Oded Kenneth, Technion, Braiding fluxes in Pauli Hamiltonians.
3. Joel Moore, UC Berkeley, Quantum transport in 1D and the anomalous Hall effect in 2D
4. Israel Klich, U of Virginia, Spin jam and exotic entropy scaling in a frustrated magnet: A tiling based proof.
5. Netanel Lindner, Technion, TBA
6. Nandini Trivedi, Ohio State U, Beyond cuprates: Novel magnetism in transition metal oxides

7. Danny Sherman (Frydman), Bar Ilan, Collective modes in disordered superconductors
8. Snir Gazit (Auerbach), Technion, Recent results on $O(2)$ Quantum Criticality
9. Amit Kanigel, Technion Anti-ferromagnetic correlations in $SrCuO_2Cl_2$
10. Yigal Meir, Ben Gurion U, The superconductor - insulator transition: percolation vs. BKT transition
11. Yuval Oreg, Weizmann, Non-Abelian topological insulators from an array of quantum wires
12. Eugene Demler, Harvard University, Quasiparticle theory of resonant XRay scattering in cuprates.
13. Maciej Koch-Janusz (Stern), Weizmann, Interacting and fractional topological insulators via the Z_2 chiral anomaly
14. Itamar Kimchi (Vishwanath), UC Berkeley, Model Hamiltonian for $3D-Li_2IrO_3$: 3D Kitaev spin liquid, magnetic orders and an infinite-D approximation
15. Efrat Shimshoni, Bar Ilan, Superfluid-Insulator transition of quantum Hall domain walls in bilayer graphene
16. Gil Drachuck (Keren), Technion, Spin-charge interplay in antiferromagnetic LSCO
17. David Ellis (Keren), Technion, Testing the relations between T_c and the superexchange J in cuprates by RIXS
18. Joe Imry, Weizmann, Scale-dependent renormalized interactions and anti-Meissner effect in nano-superconductors
19. Mohit Randeria Ohio State U, Skyrmions in 2D Chiral Magnets.
20. Immanuel Bloch, MPI Garching, From topological Bloch bands to novel spin models: new setups and probes for quantum many-body systems
21. Emil Polturak, Technion, Listening to sounds of solid He
22. Daniel Podolsky, Technion, Gapped excitations in a quantum solid.
23. Subroto Mukerjee, IIS, India, Integrability to chaos in one dimensional quantum systems: Perspectives from transport and energy level statistics

24. Sid Parameswaran, UC Berkeley, probing the chiral anomaly in Weyl/Dirac Semimetals
25. Arijeet Pal (Halperin), Harvard University, Many-body localization in a mean-field model for spin-glass
26. Yuval Vinkler (Schiller), Hebrew U, From thermal equilibrium to nonequilibrium quench dynamics: A conserving approximation for the interacting resonant-level
27. Andrea Cavalleri, MPI and Oxford U, Optical Control in High Tc Superconductors
28. Dganit Meidan, Ben Gurion U., A scattering matrix formulation of the topological index of interacting fermions in one-dimensional superconductors
29. Yonatan Ruhman (Altman) Topological states in one-dimensional Fermi gases with attractive interaction
30. Louis Seabra (Lindner) From solitons to Majorana bound states in a one-dimensional interacting model
31. Duncan Haldane, Princeton University, CM Seminar: 3D Topological metals, 2D surface Fermi arcs and cancelation of the chiral magnetic effect.
32. Hadar Steinberg, Hebrew U, Electronic transport in topological insulator hybrid devices.
33. Jason Alicea, Caltech, Revealing topological superconductivity in quantum spin Hall Josephson junctions
34. Assa Auerbach, TBA
35. Dror Orgad, Hebrew U, Transverse Thermoelectric Response of an Interacting Quasi-One-Dimensional Electronic System in a Magnetic Field
36. Yoram Dagan, Tel Aviv U, Oxide interface based quantum wires
37. Gideon Wachtel (Orgad), Hebrew U, The Role of the Core Energy in the Vortex Nernst Effect;
38. Yoni Schattner (Berg), Weizmann, Superconductivity near a nematic quantum critical point.

39. Nimrod Bachar (Duetscher), Tel Aviv U, Nano Scale Granular Aluminum: Enhanced superconductivity in the presence of strong spin scattering
40. Haim Arbel (Oreg), Weizmann, Time-Reversal Invariant Topological Superconductivity Induced by Repulsive Interactions in Quantum Wires
41. Eytan Grosfeld, BGU, Majorana fermions in the superconducting qubit architecture
42. Ehud Altman, Weizmann, Universal quantum dynamics in many-body localized states and the many-body localization transition
43. Vadim Oganesyan, CUNY, New York, Singular paramagnetism of topological insulator surfaces
44. Gergely Zarand (Budapest U) Mott skyrmions: Stabilizing the false vacuum
45. Moshe Goldstein, Tel Aviv U, Suppression of interference in quantum Hall Mach-Zehnder geometry by upstream neutral modes
46. Lukas Fidkowski, SUNY Stony Brook, Stability of Topological Superconductors to Interactions and Surface Topological Order