

Unmasked Quantum Open Systems in the Golan

Kibutz Merom Golan

May 9-11 2021

1 organizing Committee

Raam Uzdin
Amikam Levi
Ronnie Kosloff
Ofer Firstenberg
Saar Rahav

2 Program

Sunday May 9

- 14:00-14:45 Registration.
- 14:45-15:00 Opening remarks.
- 15:00-15:45 Ronnie Kosloff, Jerusalem: *The Orthodox Quantum Master Equation.*
- 15:45-16:30 Avi Pe'er, Bar Ilan: *Quantum Sensing with unlimited optical bandwidth.*
- 16:30-17:15 Uri Peskin, Technion: *Vibrational cooling by reservoir heating.*
- 17:15-17:45 Break
- 17:45-18:30 Guy Cohen, Tel Aviv: *Resolving the nonequilibrium Kondo singlet in energy-and position-space using quantum measurements.*
- 18:30-19:15 Ofer Firstenberg, Weizmann: *Continuous protection from inhomogeneous dephasing.*
- 19:15-20:30 Dinner
- 20:45 -22:45 Poster session.

Monday May 10

- 7:30-8:30 Breakfast
- 8:30-9:15 Amikam Levy, Bar Ilan: *Response theory for open quantum systems.*
- 9:15-10:00 Ephraim Shahmoon Weizmann: *Fluctuation forces from quantum reservoirs: Casimir force in electronic circuits.*
- 10:00-10:30 Break
- 10:30-11:15 Saar Rahav, Technion: *Uncertainty relation for enzymes, resetting systems, and other processes with irreversible transitions.*
- 11:15-11:40 Yotam Shpira, Weizmann: *Master equation reconstruction and steady state analysis with trapped ion qubits.*
- 11:40-12:05 Mor M. Roses, Bar Ilan: *Simulating long-range hopping on periodically-driven superconducting qubits.*
- 12:05-13:00 Lunch
- 13:00-16:45 Excursion
- 16:45-17:30 Nir Bar Gil, Jerusalem: *Exceptional points in NV centers in diamonds.*
- 17:30-18:00 Break
- 18:00-18:45 Gershon Kurizki, Weizmann: *Few-mode engines powered by heat and information.*
- 18:45-19:30 Moshe, Goldstein: Tel Aviv
- 19:30-20:00 Conference dinner
- 20:00 -23:00 Reception.

Tuesday May 11

- 7:30-8:30 Breakfast
- 8:30-9:15 Emuanuele Della Torre, Bar Ilan: *Quantum simulations with quantum computers on the cloud.*
- 9:15-10:00 Raam Uzdin, Jerusalem: TBA
- 10:00-10:30 Break
- 10:30-11:15 Yoav Sagi, Technion: *Floquet engineering with a strongly interacting Fermi gas in continuous space.*
- 11:15-12:00 Concluding remarks