

Sunday 15 January 2023 @ Schmidt lecture hall, Weizmann Institute

09:50 *Opening Weizmann Institute*

10:10 – 10:50 Eli Yablonovitch

Physics does Optimization (for Free); A New Approach Toward Computation

10:50 – 11:20 Claude Boccara

Using the Gouy Phase shift for optical transmission tomography: structures and dynamics of biosystems

Coffee

11:50 – 12:30 Rupert Huber

Shaping electronic quantum trajectories with lightwaves

12:30 – 13:00 Ofer Kfir

Optical information transfer by free electrons

Lunch

Trip to Ein Gedi (From here onwards in Ein Gedi)

18:30 Dinner

20:00 – 20:30 Gil Weinberg

Massively degenerate coherent perfect absorber for arbitrary wavefronts

20:30 – 21:00 Hugo Defienne

Taking photos of entanglement

Monday 16 January

09:00 – 09:30 Offeq Zipperan

Engineering quantum states of light using superradiance

09:30 – 10:10 Simon Groblacher

Quantum information processing at telecom wavelengths using mechanical resonators

10:10 – 10:40 Yonatan Sivan

“Hot” nonlinear photoluminescence from metals – theory and comparison to experiments

Coffee

11:00 – 11:30 Valentina Parigi

Continuous variables quantum complex networks

11:30 – 12:00 Ulf Leonhardt

How is Hawking radiation made and what can fiber optics tell?

12:00 – 12:30 Massimo Giudici

Time-Localized Turing Patterns in Mode-locked Lasers

Lunch

14:30 – 15:00 Robert Kuszelewich

Microscale viscosity imaging using heterodyne holographic analysis of magnetic nanorods rotation

15:00 – 15:30 Daniel Amgar

Spatial mapping of the dipole radiation from single exciton and biexciton states using heralded defocused imaging

15:30 – 16:00 Samuel Mateis

Super-resolved imaging based on spatiotemporal wavefront shaping

Coffee

16:30 – 17:00 Joseph Zyss

Moebius micro-billiard laser: lasing along geodesic orbits in a non-Euclidian geometry

17:00 – 17:30 Avi Zadok

Surface Acoustic Wave-Photonic Devices in Silicon

Dinner

20:00-21:00 General Lecture – Erez Ben Yosef

Poster session A

Tuesday 17 January

09:00 – 09:30 Joseph Delpy

Spin noise spectroscopy of optical light shifts

09:30 – 10:10 Tracy Northup

Cooling nanoparticles in ion traps: a route to the quantum regime

10:10 – 10:40 Ron Folman

Realization of a complete Stern-Gerlach interferometer: Towards a test of quantum gravity

Coffee

11:00 – 11:30 Gregor Knopp

Time Resolved Hard X-ray/Optical Transient Grating Spectroscopy on a Chemical Compound in a Liquid Water Jet

11:30 – 12:00 Phil Bucksbaum

Probing sub-cycle electronic quantum interference in strong-field ionization using time-correlation analysis

12:00 – 12:30 Marcos Dantus

Pulse shaping in strong-field ionization: theory and experiments

Lunch

Excursion to En Boqeq Dinner

20:00 – 20:40 Wonshik Choi

Deterministic use of multiple scattering in linear and nonlinear scattering media for super-depth optical imaging

20:40-21:10 Amit Beer

Direct, Spatially Localized Detection of THz-Induced Orientation Dynamics of Gas Phase Molecular Rotors

Poster Session B

Wednesday 18 January

09:00- 09:30 Herve Rigneault

Random illumination wide field coherent anti-Stokes Raman scattering microscopy (RIM-CARS)

09:30 – 10:00 Randy Bartels

Towards deep tissue widefield second harmonic generation (SHG) imaging with the coherent summation of SHG holographic images

10:00 – 10:30 Marie-Charlotte Chandeclerc

Holographic two-photon microscope for real-time 3D single-particle tracking

Coffee

11:00 – 11:30 Nikolay Zheludev

Photonic Analogue of a Continuous Time Crystal

11:30 – 12:00 Lior Fayerman

Observation of interband Berry phase in laser-driven crystals

12:00 – 12:30 Ronen Rapaport

From bright single photon sources to few photon transistors using quantum confined excitons and polaritons on chip

Lunch

Free time

18:30 Dinner

20:00 – 20:30 Demetri Christoudelides

Optical thermodynamics of nonlinear highly multimode systems

20:30 – 21:10 Moti Segev

Photonic Time-Crystals

Thursday 19 January

09:00 – 09:30 Ady Arie

Direct generation of spatial qubits using quantum nonlinear holograms

09:30 – 10:00 Keren Zalenchuk

Light beams with locally accelerating momentum and orbital angular momentum

10:00 – 10:40 Keith Nelson

Coffee

11:00 – 11:30 Symeon Sideris

Nonlinear THz Metagrating Emitters for Perfect Beam Shaping

11:30 – 12:00 Tomer Zohar Danino

Quantum nonlinear optics in the strong photon-photon interaction regime

12:00 – 12:30 Avi Peer

Squeezing-Enhanced Raman Spectroscopy

Lunch

Departure to Rehovot / Airport