

OASIS 7 – 1-2 April, 2019

Posters Exhibition

Monday, April 1, 2019

Micro and Nano Optics (10:55 – 11:25)

1. All-Dielectric Waveguide-Overlay System For Optical Trapping Of Atoms
Mr. Angeleene Ang, *Ben-Gurion University*
2. Utilization Of Time-Resolved Leakage Microscopy For Direct Measurement Of Plasmonic Group Velocity And Refractive Index Of Thin Graphene Layer
Mr. Ori Azulay, *Ariel University*
3. Lightning-Fast Solution Of Scattering Problems In Nanophotonics: An Effortless Modal Approach
Mr. Parry Chen, *Ben-Gurion University*
4. Fano Interference Probing By Spin-Orbit Interaction
Dr. Dima Cheskis, *Ariel University*
5. Plasmonic Enhancement Of Molecular Overtone Transitions In The Near-Infrared Region
Mr. Daler Dadadzhanov, *Ben-Gurion University*
6. Wide Range Binary Two-Dimensional Amplitude Sinusoidal Grating
Mr. Eran Daniel, *Soreq NRC*
7. Near-Ir Wide Field-Of-View Huygens Metalens For Outdoor Imaging Applications
Dr. Jacob Engelberg, *Hebrew University of Jerusalem*
8. Metasurface Assisted Mode Converters Based On Soi Technology
Mr. Yakov Greenberg, *Ben-Gurion University*
9. Detuning Modulated Composite Pulses For Integrated Photonics
Ms. Hader Greener, *Tel Aviv University*
10. Printed Waveguides In Porous Silicon
Dr. Alexander Kellarev, *Tel Aviv University*
11. Exciton-Polariton Nanofocusing
Mr. Nadav Landau, *Technion - Israel Institute of Technology*
12. Optical Properties Of Single Visible Peptide Nanodots
Mr. Nadezda Lapshina, *Tel Aviv University*
13. Phase Manipulation By Use Of A Chiral Plasmonic Metasurface
Ms. Leeju Leeju, *Ariel University*
14. Spectrally Tunable Diffractive Induced Transparency And Slow Light In Plasmonic Nanoparticle Arrays
Dr. Lior Michaeli, *Tel Aviv University*
15. Curved Space Plasmonic Optical Elements

Ms. Danveer Singh, Tel Aviv University

16. Non-Linear Light Amplification In Superconductor-Semiconductor Plasmonic Waveguides

Mr. Nir Strugo, Technion - Israel Institute of Technology

17. Dynamic Control Of Plasmonic Beams

Mr. Dror Weisman, Tel Aviv University

18. Vectorial Physical-Optics Modeling Of The Interaction Of A Tightly Focused Beam With A Nanoparticle

Ms. Huiying Zhong, LightTrans International

19. Modeling Of Diffractive/Meta-Lenses Using Fast Physical Optics

Ms. Huiying Zhong, LightTrans International

IFLA – International Fiber Lasers and Applications (10:55 – 11:25)

20. New Approaches in Microfiber and Nanofiber Tapering and Packaging

Mr. Netanel Malka, Israel Center for Advanced Photonics

21. Ultrasound Detection Via Low-Noise Pulse Interferometry Using A Free-Space Fabry-Pérot

Mr. Oleg Volodarsky, Technion - Israel Institute of Technology

Electro Optics in Industry (13:30 – 14:00)

22. Efficient Diffraction Method For 2D Orifices Using Contour Integral

Mr. Eitam Luz, Tel Aviv University

Medicine and Biology (13:30 – 14:00)

23. Enhanced Entangled-Photon-Pair Interaction With Metallic Nanoparticles

Mr. Ariel Ashkenazy, Bar-Ilan University

24. Development of a Miniaturized Bio-Barcode Sensor Array for Detection of Biological Events

Mrs. Marianna Beiderman, Bar-Ilan University

25. Surface Chemistry Controls The Uptake Of Gold Nanorods By Macrophages

Mrs. Ruchira Chakraborty, Bar-Ilan University

26. Absorption Based Physiological Parameter Determination From IPL Point

Mrs. Idit Feder, Bar-Ilan University

27. Non-Invasive Detection of Congenital Heart Diseases in Newborns by Electro-Optical Measurement in the Hand and Foot

Mr. Yohai Nitzan, Jerusalem College of Technology

28. Magnetic Resonance Imaging Of Microstructured Optical Fibers
Dr. Roman Noskov, *Tel Aviv University*
29. Holographic Display For Optical Retinal Prosthesis: Design And Validation
Mrs. Shani Rosen, *Technion - Israel Institute of Technology*
30. Acousto-Optic Tomography Beyond The Acoustic Diffraction-Limit Using Speckle Decorrelation
Mrs. Moriya Rosenfeld, *Hebrew University of Jerusalem*
31. Extended Depth-Of-Field Super-Resolution Micro-Endoscopy Via Speckle Fluctuations
Mr. Noam Shekel, *Hebrew University of Jerusalem*
32. Diffusion Reflection, A Novel Non-Invasive Nanophotonic Method For Early In Vivo Detection Of Oral Cancer
Dr. Shiran Sudri, *Tel Aviv University*
33. An Optical Method To Detect Tissue Scattering: Theory, Experiments And Biomedical Applications
Mrs. Inbar Yariv, *Bar-Ilan University*

- Non-Linear Optics (15:30 – 16:00)**
34. Second Harmonic Generation In Geometric-Phase Resonant Dielectric Metasurfaces
Mr. Jonathan Bar-David, *Hebrew University of Jerusalem*
35. Dynamics Of Coupled Degenerate Parametric Oscillators Beyond Coupled Ising Spins
Mr. Leon Bello, *Bar-Ilan University*
36. Point Measurements Of Opto-Mechanical Interactions In Multi-Core Fibers
Dr. Arik Bergman, *Bar-Ilan University*
37. Direct And Cascaded Collective Third Harmonic Generation In Plasmonic Metasurfaces
Mr. Ofer Doron, *Tel Aviv University*
38. Ultrafast Measurement Of The Entire Electric Field
Mr. Avi Klein, *Bar-Ilan University*
39. Distributed Mapping Of Nonlinear Wave Mixing Due To Opto-Mechanics And Kerr Effect
Mr. Yosef London, *Bar Ilan University*
40. Observation Of Branched Flow Of Light
Mr. Anatoly Patsyk, *Technion - Israel Institute of Technology*
41. Comprehensive Theory Of Frequency Conversion From Nanoparticles
Dr. K. Nireekshan Reddy, *Ben-Gurion University*
42. Thz Emission From Nonlinear Metasurfaces In Free Space And Waveguide Platforms
Mr. Symeon Sideris, *Tel Aviv University*

Lasers and Applications (15:30 – 16:00)

43. Yellow LASER For Eye Surgery
Mr. Kobi Aflalo, *Ben-Gurion University*
44. Emittance Reduction By Density Tapering In Laser-Plasma Electron Acceleration
Mr. Eitan Y. Levine, *Weizmann Institute of Science*
45. Efficient Laser Drilling With Temporal Laser Pulse Shaping
Mr. John Linden, *Orbotech*
46. Topologically Controlled Intra-Cavity Laser Modes By Geometric Phase Metasurface
Dr. Elhanan Maguid, *Technion - Israel Institute of Technology*
47. Plasma Fiber Using Prior Laguerre-Gaussian Laser Pulse
Mr. Omri Seemann, *Weizmann Institute of Science*
48. Low Intensity Lidar Using Depth Aware Compressive Sensing And A Photon Number Resolving Detector
Mr. Yoni Sher, *Hebrew University of Jerusalem*
49. Low-Loss Fused Silica Waveguides For High-Power Photonic Devices
Dr. Maya Yevnin, *Soreq NRC*
50. Carrier To Envelope Phase (CEP) Stable, 2.37 μ m, Ultrashort Pulses From A Hybrid Parametric – Cr:Znse Laser Amplifier
Mr. Pavel Komm, *Hebrew University of Jerusalem*
51. Observation Of Optical Backflow
Mr. Thomas Zacharias, *Tel Aviv University*

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Tuesday, April 2, 2019

Atomic and Quantum Optics (11:30 – 11:50)

52. Miniaturized Continuous Dispersive NIR Spectrometer Based On MEMS
Dr. Sebastian Meyer, Fraunhofer IPMS
53. A Quasi-Static MEMS-Scanning-Grating Enabled Tunable Micro External Cavity Quantum Cascade Laser ($\mu\text{ec-Qcl}$) For Th MIR
Dr. Jan Grahmann, Fraunhofer Institute for Photonic Microsystems (IPMS)
54. Beyond the Dispersion Limit of Standard Polymeric Fiber Transmission Systems
Dr. Matthias Haupt, Harz University of Applied Sciences
55. Multiplicative Bell Inequalities
Mr. Bar Peled, Ben-Gurion University
56. Power Narrowing: Cancellation Of Doppler Broadening In Two-Photon Transitions
Mr. Ran Finkelstein, Weizman Institute of Science
57. Spontaneous Emission From A Wide Quantum Electron
Mr. Aviv Karnieli, Tel Aviv University

Photonics in Defense (11:30 – 11:50)

58. Wildfire Fighting Is An Environmental As Well As A Homeland Security Issue
Mr. Daniel Leigh, Fighting Treetop Fire

Electro Optics Devices (11:30 – 11:50)

59. Spatial Mode Mixing Device 3D Printed On Fiber Facet
Ms. Miri Blau, Hebrew University of Jerusalem
60. Polarization Dependence Of SPP Coupling In Au Nanowires
Dr. Rajesh Desapogu, Ariel University
61. Dual-Mode NSOM-AFM Silicon-Based Photodetector For Advanced Surface Scanning
Mr. Emanuel Lozitsky, Jerusalem College of Technology
62. NSOM Nanoscale Si-Based Advanced Photodetector For Several Scanning Configurations
Mr. Matityahu Karelits, Lev Academic Center - Jerusalem College of Technology (JCT)
63. On The Chip Enhanced Raman Imager

Mr. Yaakov Mandelbaum, *Lev Academic Center - Jerusalem College of Technology (JCT)*

64. Surface Acoustic Wave-Photonic Devices In Silicon-On-Insulator

Mr. Dvir Munk, *Bar-Ilan University*

65. New Modes' Analysis In Linbo3 Split Y-Junction Wave-Guide Sharing Very Low Index Difference

Mr. Eyal Terkieltaub, *Jerusalem College of Technology*

66. Surface Plasmon Resonance Phase Extraction Technique Using A Liquid Crystal Waveplate And A Diverging Beam Approach

Mr. Ibrahim Watad, *Ben-Gurion University*

Optical Engineering (13:50 – 14:20)

67. Interferometric Metrology Of Freeform Surfaces

Mr. Jean Pierre Lormeau, *QED Technologies International Inc.*

68. Absolute Optimization Method For Vertical Grating Coupling

Prof. Shlomo Ruschin, *Tel Aviv University*

69. Simultaneous Multi-Channel Ultrasound Detection Via Optical Resonators

Mr. Yoav Hazan, *Technion - Israel Institute of Technology*

70. Passive Interferometric Detection Of Ultrasound With A Large Dynamic Range

Mr. Yoav Hazan, *Technion - Israel Institute of Technology*

71. Embedding Metasurfaces Into Contact Lenses – More Than Refractive-Error Correction

Mrs. Sharon Karepov, *Tel Aviv University*

72. Compact Lidar System For The Automotive Industry

Dr. Boaz Nemet, *Innoviz Technologies*

73. Speckle Reduction Using Ultrasound In Interferometric Phase Microscopy

Mrs. Shira Shinar, *Tel Aviv University*

74. Analysis Of Process Induced Changes In Optical Properties Of Precision Glass Molded Lenses

Mr. Jan-Helge Staasmeyer, *Fraunhofer Institute for Production Technology IPT*

75. Influence Of Dressing Strategies And Balancing Parameters On The Surface Quality In Ultra-Precision Grinding Of Transparent Polycrystalline Spinel

Mr. Thomas Blettek, *Fraunhofer Institute for Production Technology IPT*

Ultrafast Phenomena (13:50 – 14:20)

76. Coherent Control Of The Non-Instantaneous Response Of Plasmonic Nanostructures

Mr. Eyal Bahar, *Tel Aviv University*

77. Towards Ultrafast Phase Spectroscopy: Femtosecond Rabi Oscillations In Coupled Lsprs

Mr. Uri Arieli, *Tel Aviv University*

78. Ultrafast Rogue Waves In Fiber Lasers
Dr. Moti Fridman, *Bar-Ilan University*
79. Towards Remote Lightning Manipulation By Meters-Long Plasma Channels Generated By Ultra-Short-Pulse High-Intensity Lasers
Dr. Jenya Papeer, *Hebrew University of Jerusalem*
80. Self-Compressed Polarization Controlled Red Shifted Soliton from Supercontinuum for 1 μm CPA Systems
Prof. Zaharit Rafaeli, *Soreq NRC*
81. Multi-Mode Time Lens
Ms. Inbar Sibony, *Bar-Ilan University*
82. Experimental Demonstration Of Time-Resolved Imaging By Multiplexed Ptychography (TIMP)
Mr. Omri Wengrowicz, *Technion - Israel Institute of Technology*

Solar Energy (15:50 – 16:20)

83. Thin Solar Cells Light Management Integrating Metasurfaces
Mr. Evyatar Rimon, *Ben Gurion University*
84. Synthesis And Characterization Of Few Unit Cell Cs-Based Perovskite Nanowires And Novel Rubidium Lead Chloride Nanocrystals
Mrs. Daniel Amgar, *Weizmann Institute of Science*
85. Microcavity Enhanced Low-Frequency Raman Scattering From CsPbI₃ At Room Temperature
Mrs. Tal Ben Uliel, *Bar-Ilan University*
86. Structural Characterization And Room Temperature Low Frequency Raman Scattering From MAPbI₃ Halide Perovskite Films Rigidized By Cesium Incorporation
Mr. Vinayaka Harshothama Damle, *Bar-Ilan University*
87. Strain Controlling Catalytic Efficiency Of Water Oxidation For NiFeOOH Alloy
Mrs. Ester Korkus Hamal, *Technion - Israel Institute of Technology*
88. A New Two-Step Method Towards MAPbI₃ Perovskite Films
Ms. Maayan Perez, *Ben Gurion University*

Spectroscopic and Optical Sensing (15:50 – 16:20)

89. New Method For Light Meter Calibration
Mr. Arie Amitzi, *QCC Hazorea Calibration Technologies*
90. Multi-Purpose Hyperspectral Imaging System For Sampling Of Crop From A Moving Platform

Mr. Or Arad, Ben Gurion University

91. Biomineral Vaterite Nanoparticles as a Platform for Targeted Drug Delivery Applications

Mr. Hani Barhum, Tel Aviv University

92. The Measurement Of Large And Fast Strains Using Rayleigh Backscattering In Optical Fibers

Mr. Hari Datta Bhatta, Tel Aviv University

93. Fiber Optics For Biomedical Diagnostics

Dr. Olga Bibikova, art photonics GmbH

94. Passive Optical Time-Of-Flight For Non Line-Of-Sight Localization

Mr. Jeremy Boger-Lombard, Hebrew University of Jerusalem

95. Diagnosis Of Oral Cancer Based On FTIR-ATR Spectra Of Salivary Exosomes – Preliminary Study

Dr. Ben Zion Dekel, Ruppin Academic Center

96. Optofluidics By The Use Of Gradient Metal Nanoislands

Dr. Dimitra Gkogkou, Leibniz-Institut für Analytische Wissenschaften – ISAS – e. V.

97. High Speed Fiber Bragg Grating Interrogator Enabling Ultrasonic Nondestructive Testing And Machine Condition Monitoring

Dr. Ziv Glasser, Ariel University

98. Novel Fiber-Only UHQ Micro-Resonators For Sensing Application

Mr. Gabriel Guendelman, Weizmann Institute of Science

99. Deflected Talbot Effect In Weakly Absorbing Medium On Waveguide With Perturbation Of Cylindrical Shape

Mr. Aviad Katiyi, Ben Gurion University

100. Spectral Superresolution In A Compact FT-IR Spectrometer

Ms. Erga Lifshitz, Tel Aviv University

101. Phase-Shift-Amplified Interferometry

Mr. Egor Liokumovitch, Ariel University

102. Revealing Non-Mie Resonances Via Dark-Field Spectroscopy In Biomineral Vaterite Nanoparticles

Mr. Andrey Machnev, Tel Aviv University

103. Enhanced Sensitivity Of Silicon-Photonics-Based Ultrasound Detection Via BCB Coating

Ms. Resmi Ravi Kumar, Technion - Israel Institute of Technology

104. Echo Spectroscopy in Multilevel Quantum-Mechanical Molecular Rotors

Ms. Dina Rosenberg, Tel Aviv University

105. Sequence-Coded Coherent Laser Range-Finder

Mrs. Keren Shemer, Bar-Ilan University

106. Plasma Dispersion Effect Based Super-Resolved Imaging In Silicon

Prof. Moshe Sinvani, Bar-Ilan University

107. High-Tc Superconductor Nanowire Single Photon Detector



International Conference and Exhibition
on Optics and Electro-Optics

7

1-2 April 2019

David InterContinental Hotel

Mr. Xixi Xing, Technion - Israel Institute of Technology

108. Pathogen Detection Using Frequency Domain Fluorescent Lifetime Measurements

Mr. Gilad Yahav, Bar-Ilan University