OASIS 7 – 1-2 April, 2019

Posters Exhibition

Monday, April 1, 2019

Micro and Nano Optics (10:55 – 11:25)

1. All-Dielectric Waveguide-Overlayer 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. Hadar 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, 2.37µm, 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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Posters Exhibition

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 (µec-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, *Weitzman 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 Bletek, *Fraunhofer Institute for Production Technology IPT*

Ultrafast Phenomena (13:50 – 14:20)

76. Coherent Control Of The Non-Instantaneous Response Of Plasmonic Nanostructes
    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. Design of a Multi-Bounce Öffner Triplet Pulse Stretcher for 1 Mm Chirped Pulse Amplifier
    Prof. Yariv Shamir, *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 Controling 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

Mr. Xinxi Xing, *Technion - Israel Institute of Technology*

108. Pathogen Detection ysing Frequency Domain Time-Resolved Fluorescence Measurements

Mr. Gilad Yahav, *Bar-Ilan University*