



International Conference and Exhibition
on Optics and Electro-Optics

7

1-2 April 2019

David InterContinental Hotel

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. 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



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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

Medicine and Biology (13:30 – 14:00)

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

Mr. Ariel Ashkenazy, Bar-Ilan University

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

Mrs. Marianna Beiderman, Bar-Ilan University

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

Mrs. Ruchira Chakraborty, Bar-Ilan University

25. Absorption Based Physiological Parameter Determination From IPL Point

Mrs. Idit Feder, Bar-Ilan University

26. 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

27. Magnetic Resonance Imaging Of Microstructured Optical Fibers

Dr. Roman Noskov, Tel Aviv University

28. Holographic Display For Optical Retinal Prosthesis: Design And Validation

Mrs. Shani Rosen, Technion - Israel Institute of Technology

29. Acousto-Optic Tomography Beyond The Acoustic Diffraction-Limit Using Speckle Decorrelation



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Mrs. Moriya Rosenfeld, Hebrew University of Jerusalem

30. Extended Depth-Of-Field Super-Resolution Micro-Endoscopy Via Speckle Fluctuations

Mr. Noam Shekel, Hebrew University of Jerusalem

31. Diffusion Reflection, A Novel Non-Invasive Nanophotonic Method For Early In Vivo Detection Of Oral Cancer

Dr. Shiran Sudri, Tel Aviv University

32. 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)

33. Second Harmonic Generation In Geometric-Phase Resonant Dielectric Metasurfaces

Mr. Jonathan Bar-David, Hebrew University of Jerusalem

34. Dynamics Of Coupled Degenerate Parametric Oscillators Beyond Coupled Ising Spins

Mr. Leon Bello, Bar-Ilan University

35. Point Measurements Of Opto-Mechanical Interactions In Multi-Core Fibers

Dr. Arik Bergman, Bar-Ilan University

36. Direct And Cascaded Collective Third Harmonic Generation In Plasmonic Metasurfaces

Mr. Ofer Doron, Tel Aviv University

37. Ultrafast Measurement Of The Entire Electric Field

Mr. Avi Klein, Bar-Ilan University

38. Distributed Mapping Of Nonlinear Wave Mixing Due To Opto-Mechanics And Kerr Effect

Mr. Yosef London, Bar Ilan University

39. Observation Of Branched Flow Of Light

Mr. Anatoly Patsyk, Technion - Israel Institute of Technology

40. Comprehensive Theory Of Frequency Conversion From Nanoparticles

Dr. K. Nireekshan Reddy, Ben-Gurion University

41. Thz Emission From Nonlinear Metasurfaces In Free Space And Waveguide Platforms

Mr. Symeon Sideris, Tel Aviv University

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

42. Yellow LASER For Eye Surgery

Mr. Kobi Aflalo, Ben-Gurion University

43. Emittance Reduction By Density Tapering In Laser-Plasma Electron Acceleration

Mr. Eitan Y. Levine, Weizmann Institute of Science

44. Efficient Laser Drilling With Temporal Laser Pulse Shaping



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Mr. John Linden, Orbotech

45. Topologically Controlled Intra-Cavity Laser Modes By Geometric Phase Metasurface

Dr. Elhanan Maguid, Technion - Israel Institute of Technology

46. Low Intensity Lidar Using Depth Aware Compressive Sensing And A Photon Number Resolving Detector

Mr. Yoni Sher, Hebrew University of Jerusalem

47. Low-Loss Fused Silica Waveguides For High-Power Photonic Devices

Dr. Maya Yevnin, Soreq NRC

48. 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

49. 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)

- 50. Beyond the Dispersion Limit of Standard Polymeric Fiber Transmission Systems
Dr. Matthias Haupt, *Harz University of Applied Sciences*
- 51. 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)*
- 52. Multiplicative Bell Inequalities
Mr. Bar Peled, *Ben-Gurion University*
- 53. Power Narrowing: Cancellation Of Doppler Broadening In Two-Photon Transitions
Mr. Ran Finkelstein, *Weitzman Institute of Science*
- 54. Spontaneous Emission From A Wide Quantum Electron
Mr. Aviv Karnieli, *Tel Aviv University*

Photonics in Defense (11:30 – 11:50)

- 55. 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)

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



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Mr. Dvir Munk, Bar-Ilan University

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

Mr. Eyal Terkieltaub, Jerusalem College of Technology

63. 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)

64. Interferometric Metrology Of Freeform Surfaces

Mr. Jean Pierre Lormeau, QED Technologies International Inc.

65. Absolute Optimization Method For Vertical Grating Coupling

Prof. Shlomo Ruschin, Tel Aviv University

66. Simultaneous Multi-Channel Ultrasound Detection Via Optical Resonators

Mr. Yoav Hazan, Technion - Israel Institute of Technology

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

Mr. Yoav Hazan, Technion - Israel Institute of Technology

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

Mrs. Sharon Karepov, Tel Aviv University

69. Compact Lidar System For The Automotive Industry

Dr. Boaz Nemet, Innoviz Technologies

70. Speckle Reduction Using Ultrasound In Interferometric Phase Microscopy

Mrs. Shira Shinar, Tel Aviv University

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

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

72. 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)

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

Mr. Eyal Bahar, Tel Aviv University

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

Mr. Uri Arieli, Tel Aviv University

75. Ultrafast Rogue Waves In Fiber Lasers

Dr. Moti Fridman, Bar-Ilan University

76. Towards Remote Lightning Manipulation By Meters-Long Plasma Channels Generated By Ultra-Short-Pulse High-Intensity Lasers

Dr. Jenya Papeer, Hebrew University of Jerusalem

77. Design of a Multi-Bounce Öffner Triplet Pulse Stretcher for 1 Mm Chirped Pulse Amplifier

Dr. Yariv Shamir, Soreq NRC

78. Multi-Mode Time Lens

Ms. Inbar Sibony, Bar-Ilan University

79. Experimental Demonstration Of Time-Resolved Imaging By Multiplexed Ptychography (TIMP)

Mr. Omri Wengrowicz, Technion - Israel Institute of Technology

Solar Energy (15:50 – 16:20)

80. Thin Solar Cells Light Management Integrating Metasurfaces

Mr. Evyatar Rimon, Ben Gurion University

81. Microcavity Enhanced Low-Frequency Raman Scattering From CsPbI₃ At Room Temperature

Mrs. Tal Ben Uliel, Bar-Ilan University

82. Microcavity Enhanced Low-Frequency Raman Scattering From CsPbI₃ At Room Temperature

Mr. Eitan Y. Levine, Weizmann Institute of Science

83. 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

84. Strain Controlling Catalytic Efficiency Of Water Oxidation For NiFeOOH Alloy

Mrs. Ester Korkus Hamal, Technion - Israel Institute of Technology

85. A New Two-Step Method Towards MAPbI₃ Perovskite Films

Ms. Maayan Perez, Ben Gurion University

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

86. New Method For Light Meter Calibration

Mr. Arie Amitzi, QCC Hazorea Calibration Technologies

87. Multi-Purpose Hyperspectral Imaging System For Sampling Of Crop From A Moving Platform

Mr. Or Arad, Ben Gurion University

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

Mr. Hani Barhum, Tel Aviv University

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

Mr. Hari Datta Bhatta, Tel Aviv University

90. Fiber Optics For Biomedical Diagnostics



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Dr. Olga Bibikova, art photonics GmbH

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

Mr. Jeremy Boger-Lombard, Hebrew University of Jerusalem

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

Dr. Ben Zion Dekel, Ruppin Academic Center

93. Optofluidics By The Use Of Gradient Metal Nanoislands

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

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

Dr. Ziv Glasser, Ariel University

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

Mr. Gabriel Guendelman, Weizmann Institute of Science

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

Mr. Aviad Katiyi, Ben Gurion University

97. Spectral Superresolution In A Compact FT-IR Spectrometer

Ms. Erga Lifshitz, Tel Aviv University

98. Phase-Shift-Amplified Interferometry

Mr. Egor Liokumovitch, Ariel University

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

Mr. Andrey Machnev, Tel Aviv University

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

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

101. Echo Spectroscopy in Multilevel Quantum-Mechanical Molecular Rotors

Ms. Dina Rosenberg, Tel Aviv University

102. Sequence-Coded Coherent Laser Range-Finder

Mrs. Keren Shemer, Bar-Ilan University

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

Prof. Moshe Sinvani, Bar-Ilan University

104. High-Tc Superconductor Nanowire Single Photon Detector

Mr. Xinxing Xing, Technion - Israel Institute of Technology

105. Pathogen Detection Using Frequency Domain Time-Resolved Fluorescence Measurements

Mr. Gilad Yahav, Bar-Ilan University