Monday, April 1, 2019

Hall A

11:30 - 13:00 | Parallel Session 1

Optical Engineering

Dr. Hanni Inbar

♦ Photonics-Based Particle Acceleration
Prof. Peter Hommelhoff, *Friedrich Alexander University Erlangen-Nuremberg, Germany*

♦ SWIR to Visible Up-Conversion Devices Development
Prof. Gabby Sarusi, *Ben-Gurion University, Israel*

Non-Paraxial Fourier and Fresnel Optics in Design of Diffractive Optical Elements and Meta-Surfaces
Prof. Michael A. Golub, *Tel Aviv University, Israel*

Joint Design of Optics and Post-Processing Algorithms Based on Deep Learning for Generating Advanced Imaging Features
Mr. Shay Elmalem, *Tel Aviv University, Israel*

A K-Domain Method for Fast Propagation of Electromagnetic Fields through Graded-Index Media
Ms. Huiying Zhong, *LightTrans International UG, Germany*

13:00 - 14:00 | Lunch Break (Lobby Floor)
13:30 - 14:00 | Posters Review of Topics: *Electro Optics in Industry and Medicine and Biology*

14:00 - 15:30 | Parallel Session 2

Micro and Nano Optics

Prof. Koby Scheuer

♦ Kerr-Microresonator Solitons for Ultraprecise Measurements
Dr. Scott Papp, *NIST and University of Colorado, USA*

Parametrical Optomechanical Oscillations in Microbubble Resonators: Suppression, Enhancement and Route to Chaos
Dr. Silvia Soria, *IFAC-CNR Institute of Applied Physics "N. Carrara", Italy*

Optomechanically-Driven Microstructures for Targeted Drug Delivery Applications
Dr. Pavel Ginzburg, *Tel Aviv University, Israel*

Optical Skyrmions: A New Texture of Light
Mr. Shai Tsesses, *Technion - Israel Institute of Technology, Israel*

Spin-Locking In 2D and 3D Plasmonic Structures
Dr. Yuri Gorodetski, *Ariel University, Israel*

15:30 - 16:00 | Coffee Break and Posters Review of Topics: *Non-Linear Optics and Lasers and Applications*

16:00 - 17:30 | Parallel Session 3

Micro and Nano Optics

Prof. Koby Scheuer

Multifunctional Spectrally Interleaved Geometric Phase Metasurface
Dr. Elhanan Maguid, *Technion - Israel Institute of Technology, Israel*

Guiding Surface Plasmon Polaritons on Curved Surfaces
Mrs. Ana Libster-Hershko, *Tel Aviv University, Israel*

Reconfigurable Semiconductor Metasurface Resonators
Dr. Tomer Lewi, *Bar-Ilan University, Israel*

Non-Equilibrium Theory of "Hot" Electron Generation in Plasmonic Nanostructures under Illumination - Thermal vs. Non-Thermal Effects
Dr. Yonatan Sivan, *Ben-Gurion University, Israel*

Optimization of Coupling Gratings for Lightguide-Based Displays
Ms. Huiying Zhong, *Friedrich-Schiller-Universität Jena, Germany*

Random Topological Defects-Induced Spin-Enabled Photonic Transport by Metasurfaces
Dr. Bo Wang, *Technion - Israel Institute of Technology, Israel*

Key: ♦=Invited/Keynote Speaker

Monday, April 1, 2019

Hall B

11:30 – 13:00 | Parallel Session 1

Lasers and Applications

Dr. Ariel Bruner

♦ Challenges in Further Power Scaling of Single-Mode Fiber Lasers
Prof. Liang Dong, *Clemson University, USA*

♦ Femtosecond Pulse Generation by Using Single-Layer Graphene and Voltage-Controlled Graphene Supercapacitor Structures
Prof. Alphan Sennaroglu, *Koç University, Turkey*

Axiparabola: A Long Focal Depth, High Resolution Mirror for Broadband High Intensity Lasers
Mr. Slava Smartsev, *Weizmann Institute of Science, Israel*

Micron Precision Assembly for Sensors and Laser Systems on a Reconfigurable Industrial Platform
Mr. Tobias Mueller, *Fraunhofer Institute for Production Technology, Germany*

High Energy Tunable Narrow Bandwidth Tm:YAP Laser
Dr. Salman Noach, *Jerualem College of Technology, Israel*

13:00 – 14:00 | Lunch Break (Lobby Floor)
13:30 – 14:00 | Posters Review of Topics: *Electro Optics in Industry and Medicine and Biology*

14:00 – 15:30 | Parallel Session 2

Atomic and Quantum Optics

Dr. Barak Dayan

♦ Quantum-Dot Quantum Nanophotonics
Prof. Nir Rotenberg, *University of Copenhagen, Denmark*

Effect of Stokes Shift on Polariton Dynamics
Prof. Jussi Toppari, *University of Jyväskylä, Finland*

Quantum Free-Electron Wavepacket Interactions with Light and Matter
Prof. Avraham Gover, *Tel Aviv University, Israel*

Strong Coupling of THz Fields to Collective Molecular Vibrations
Dr. Sharly Fleischer, *Tel Aviv University, Israel*

Photonic Quantum Walks with Cyclic Geometry as Versatile Quantum Simulators
Dr. Eliahu Cohen, *Bar Ilan University, Israel*

15:30 – 16:00 | Coffee Break and Posters Review of Topics: *Non-Linear Optics and Lasers and Applications*

16:00 – 17:30 | Parallel Session 3

Lasers and Applications

Dr. Ariel Bruner

♦ Progress in VECSEL Technology and Emerging Applications
Prof. Mircea Guina, *Tampere University, Finland*

♦ An Overview of the Israeli Consortium on Advanced Laser Technologies for Industrial Applications (ALTIA)
Dr. Kobi Lasri, *V-Gen Ltd., MKS Spectra-Physics, Israel*

Optically Pumped Flip-Chip Wafer-Fused Vecsels Emitting at 1.55-µm Wavelength
Prof. Eli Kapon, *Ecole Polytechnique Federale de Lausanne-EPFL, Switzerland*

Towards Room Temperature Operation of Terahertz Quantum Cascade Lasers: Carrier Leakage Engineering as a Novel Design Concept
Dr. Asaf Albo, *Bar Ilan University, Israel*

Micron-Scale Additive Manufacturing Using Laser Transfer of Metals
Mr. Niv Gorodesky, *Bar-Ilan University, Additive Manufacturing Lab, Orbotech Ltd, Israel*

Key: ♦=Invited/Keynote Speaker

Monday, April 1, 2019

Hall C

11:30 – 13:00 | Parallel Session 1

Medicine and Biology

Prof. Dror Fixler

Sponsored by: HAMAMATSU PHOTON IS OUR BUSINESS

♦ Wide-field Time-correlated Single Photon Counting (TCSPC) for Fluorescence Lifetime Imaging (FLIM) Microscopy
Prof. Klaus Suhling, *King's College London, UK*

♦ All Optical Monitoring of Cancer Treatment Efficiency with Overtone Absorption Spectroscopy on Microfibers with Random Surface Roughness
Prof. Alina Karabchevsky, *Ben-Gurion University, Israel*

Improved Photoacoustic Image Reconstruction of Clinical Data
Dr. Idan Steinberg, *Stanford School of Medicine, USA*

Advanced Fiber Optic Solutions for Biomed Photonics in 0.3-16µm Range
Dr. Viacheslav Artyushenko, *Art Photonics GmbH, Germany*

Infrared Fiber-Optic Sensing Method for Early Detection of Melanoma and other types of Skin Cancer
Mrs. Svetlana Basov, *Tel Aviv University, Israel*

Automated Transscleral Laser Trabeculoplasty
Dr. Zachary Sacks, *Belkin Laser Ltd., Israel*

13:00 – 14:00 | Lunch Break (Lobby Floor)
13:30 – 14:00 | Posters Review of Topics: *Electro Optics in Industry and Medicine and Biology*

14:00 – 15:30 | Parallel Session 2

Medicine and Biology

Prof. Dror Fixler

Sponsored by: HAMAMATSU PHOTON IS OUR BUSINESS

♦ On-Chip Silicon Photonic Biosensors
Prof. Sharon Weiss, *Vanderbilt University, USA*

♦ Stain-Free Quantitative Phase Imaging of Sperm Cells for In Vitro Fertilization
Prof. Natan T. Shaked, *Tel Aviv University, Israel*

Three Photon Adaptive Optics for in-vivo Mouse Brain Imaging
Dr. David Sinefeld, *Cornell University, USA*

Imaging Tympanic Membrane Surface Vibrations – In Vivo
Mr. Matan Hamra, *Technion – Israel Institute of Technology, Israel*

Eye Tracking Control in Visual Prostheses
Prof. Avi Caspi, *Jerusalem College of Technology, Israel*

15:30 – 16:00 | Coffee Break and Posters Review of Topics: *Non-Linear Optics and Lasers and Applications*

16:00 – 17:30 | Parallel Session 3

Spectroscopic and Optical Sensing

Dr. Ayala Ronen

♦ Atmospheric Optics: Beauty and Science
Prof. Joseph A Shaw, *Montana State University, USA*

Accurate Synchronization of Spectrometers for Laser Induced Breakdown Spectroscopy Using New CMOS Sensors
Dr. Thomas Rasmussen, *Ibsen Photonics, Denmark*

Design of an All-Optical Ultrasound Transducer Based on a Microcavity Resonator
Dr. Silvia Soria, *IFAC-CNR Institute of Applied Physics "N. Carrara", Italy*

NDIR Gas Measurement in Harsh Environments by Advanced IR Components and Packaging Technologies
Mr. Steffen Biermann, *Micro-Hybrid Electronic GmbH, Germany*

Measurements and Modeling of Laser Propagation in Fog and Clouds
Dr. Ofer Yaron, *RAFAEL, Israel*

Application of Hyper-Spectral LIF-LIDAR Based on ICCD for Detection and Identification of Bio-Aerosol Clouds & Studding its Formation Dynamic
Dr. Ofir Shoshanimm, *Institute for Biological Research, Israel*

Key: ♦=Invited/Keynote Speaker

Monday, April 1, 2019

Hall D

11:30 – 13:00 | Parallel Session 1

Electro Optics in Industry

Dr. Rami Cohen

♦ Optimize Electro-Optics Mechanical Design for Additive Manufacturing
Mr. Elad Yosef, *Elbit Systems-ISTAR, Israel*

♦ Embedded 3D Interconnects in Glass Substrates by a Combined Laser Trenching and Printing Process
Mr. Yuval Berg, *Orbotech, Israel*

♦ State Of The Art Precision Metrology with Ultra-Low-Noise Optical Frequency Combs
Dr. Benjamin Sprenger, *Menlo Systems, Germany*

Development of Thin Glass-based Technologies for Photonic System Integration
Dr. Henning Schröder, *Fraunhofer IZM, Germany*

Review on Free Form Optics: Advantages and Challenges Of An Emerging Technology
Mr. Raginski Igor, *Rafael, Israel*

13:00 – 14:00 | Lunch Break (Lobby Floor)
13:30 – 14:00 | Posters Review of Topics: *Electro Optics in Industry and Medicine and Biology*

14:00 – 15:30 | Parallel Session 2

Start-up Session

Ms. Salit Lev

Prof. Gabby Sarusi, *SenSWIR*

Dr. Yaakov Amitai, *Oorym*

Mr. Ran Bar-Yosef, *Spectralics*

Dr. Zachary Sacks, *Belkin Lasers*

Prof. Ibrahim Abdulhalim, *Photonicsys*

Dr. Assaf Anderson, *MaterialsZone*

Mr. Ofer Harpak, *Oxitone*

Dr. Ilya Fine, *Elfi-Tech*

Dr. Dan Haronian, *Enervibe*

Prof. Yossef Ben-Ezra, *Cellowireless*

Dr. Cristina Canavesi, *LighTopTech*

Mr. Jon Donner, *Nano-Fabrica*

Mr. Eduardo Svetliza, *Retsight*

Mr. Itai Hayot, *Scopiolabs*

15:30 – 16:00 | Coffee Break and Posters Review of Topics: *Non-Linear Optics and Lasers and Applications*

16:00 – 17:30 | Parallel Session 3

Non-Linear Optics

Dr. Haim Suchowski

♦ Quantum Design of Coherent X-rays with Spin and Orbital Angular Momentum
Prof. Tenio Popmintchev, *University of California San Diego, USA*

Loss of Time Reversibility in Absorption-Free Focusing Media
Mr. Amir Sagiv, *Faculty of Engineering, Tel Aviv University, Israel*

High Energy KGW/Tm:YLF Raman Laser
Mr. Uzziel Sheintop, *Jerusalem College of Technology, Israel*

Thermo-Optical Nonlinearity of Single Metallic Nanoparticle
Dr. Ieng Wai Un, *Ben Gurion University, Israel*

Indefinitely Switchable Nonlinear Optical Nanoantennas for Ultrafast Stream Cryptography
Dr. Roman E. Noskov, *Tel Aviv University, Israel*

Key: ♦=Invited/Keynote Speaker

Monday, April 1, 2019

Hall E - IFLA

11:30 - 13:00 | Parallel Session 1

Specialty Fiber

Dr. Yoav Sintov

♦ Materials Development for Advanced Optical Fibers
Prof. John Ballato, *Clemson University, USA*

♦ Image Transport through Glass-Air Disordered Optical Fiber
Prof. Axel Schülzgen, *CREOL, USA*

♦ Large Mode Area Fiber Designs for Megawatt Peak Power Generation in REPUSIL-Based Tapered Amplifiers
Dr. Matthias Jäger, *IPHT, Germany*

♦ Mode Area Scaling Through a Multicore Supermode Fibre
Prof. Seongwoo Yoo, *NTU, Singapore*

13:00 - 14:00 | Lunch Break (Lobby Floor)

13:30 - 14:00 | Posters Review of Topics: *Electro Optics in Industry and Medicine and Biology*

14:00 - 15:30 | Parallel Session 2

Mid-IR Fibers and Sources

Prof. Amiel Ishaaya

♦ Silica-Based Hollow-Core Optical Fibres: A New Paradigm for the Mid-Infrared
Prof. Jonathan Knight, *University of Bath, UK*

♦ Recent Advances in Mid-Infrared Fiber Lasers
Prof. Real Valle, *Laval University, Canada*

♦ Bringing Infrared Fiber Components to the Market
Mr. Eric Geoffrion, *Thorlabs (Formerly IR-Photonics), Canada*

♦ Fiber-Bulk Hybrid Mid-Infrared Lasers Based on Transition
Metal Doped Ceramic Chalcogenides
Prof. Sergey Mirov, *University of Alabama, USA*

15:30 - 16:00 | Coffee Break and Posters Review of Topics: *Non-Linear Optics and Lasers and Applications*

16:00 - 17:30 | Parallel Session 3

Fiber Lasers and Applications I

Dr. Boaz Lissak

♦ Prospects in Power Scaling of Coherently Coupled Fiber Lasers and Amplifiers
Prof. Andreas Tünnermann, *FSU, Jena, Germany*

♦ Amplifiers and Lasers with Active Tapered Double Clad Fibers
Prof. Valery Filippov, *Ampliconyx, Finland*

♦ Beam Cleaning Effects in Multimode LD-Pumped GRIN-Fiber Raman Laser
Prof. Sergey Babin, *Novosibirsk State University, Russia*

♦ High Pulse Energy Single Frequency 1.55micron Fiber Amplifiers
Dr. Shibin Jiang, *AdValue, US*

Robust Setup for Generation of High-Power CW Green Laser
Dr. Yishai Albeck, *Civan Ltd, Israel*

Key: ♦=Invited/Keynote Speaker

Monday, April 1, 2019

Plenary Hall

08:00 – 09:00 Coffee and Registration

09:00 – 10:55 **Opening Session**

09:00 – 09:30 **Chairperson: Prof. Abraham Katzir,**
Chairman of Oasis 2019

09:30 – 10:15 **Plenary Lecture:**
Passion Extreme Light
Prof. Gérard Mourou, *Nobel Prize Winner, É cole Polytechnique, Palaiseau, France*

10:15 – 10:55 **Plenary Lecture:**
Seeing the Unseen in Patients: Advancing Disease Prevention and Treatment through Microimaging
Prof. Guillermo Tearney,
Mass General Hospital, Harvard University, MIT, Cambridge, MA, USA

10:55 – 11:25 Coffee Break and Posters Review of Topics: *Micro and Nano Optics, IFLA – International Fiber Lasers and Applications*

Tuesday, April 2, 2019

Plenary Hall

08:00 – 09:00 Coffee and Registration

09:00 – 11:30 **Opening Session**

09:00 – 09:10 **Chairperson: Prof. Abraham Katzir,**
Chairman of Oasis 2019

09:10 – 09:15 **Eng. Ehud Noff,**
Chairman of AEAI – Association of Engineers, Architects and Graduates in Technological Sciences in Israel

09:15 – 09:55 **Plenary Lecture:**
Recovering Lost Information in the Digital World
Prof. Yonina Eldar,
Weizmann Institute of Science, Israel

09:55 – 10:35 **Plenary Lecture:**
Gravitational-wave Interferometers: A Revolution in the Way We Observe the Universe
Prof. David Reitze,
The LIGO Laboratory, Caltech, Pasadena, CA, USA

10:35 – 10:50 Coffee Break

10:50 – 11:30 **Plenary Lecture:**
Landmarks in Quantum Optics: From Photons to Atoms
Prof. Alain Aspect,
Institut d'Optique, Paris, France

11:30 – 11:50 Coffee Break and Posters Review of Topics: *Atomic and Quantum Optics, Photonics in Defense, and Electro Optics Devices*

Tuesday, April 2, 2019

Hall A

11:50 – 13:20 | Parallel Session 4

Solar Energy

Prof. David Cahen

♦ Experimental Realization and Theoretical Understanding of High Open-Circuit Voltages in LeadHalide Perovskites
Prof. Thomas Kirchartz, *University of Duisburg-Essen, Duisburg, Germany*

♦ Stability Studies of Perovskite PV Materials and Devices Using Concentrated Sunlight
Dr. Iris Visoly-Fisher, *Ben-Gurion University of the Negev, Israel*

Low Dimensional Perovskite: Stability, Solar Cells and Nanostructures
Prof. Lioz Etgar, *The Hebrew University of Jerusalem, Israel*

Photovoltaics for Internet of Things vs. Solar Power – the Optics Factor
Mr. Barry Breen, *3GSolar Photovoltaics Ltd, Israel*

On Optimization of Heliostat Fields for Solar Central Receiver Plants
Dr. Pinchas Doron, *Azrieli College of Engineering, Israel*

13:20 – 14:20 | Lunch Break (Lobby Floor)

13:50 – 14:20 | Posters Review of Topics: *Optical Engineering, and Ultrafast Phenomena*

14:20 – 15:50 | Parallel Session 5

Ultrafast Phenomena

Prof. Oren Cohen

♦ Spatiotemporal Dynamics of Optical Pulse Propagation in Multimode Fibers
Prof. Frank Wise, *Cornell University, USA*

Self-Compressed Polarization Controlled Red Shifted Soliton from Supercontinuum for 1 µm CPA Systems
Ms. Zaharit Refaeli, *Soreq, Israel*

Interferometric Attosecond Lock-In Measurement of Extreme Ultraviolet Circular Dichroism
Dr. Doron Azoury, *Weizmann Institute of Science, Israel*

Two-photon Excitation of an Exciton-Polariton Condensate
Mr. Nadav Landau, *Technion – Israel Institute of Technology, Israel*

♦ Revealing the Motion of Hybrid Light-Matter Excitations by Ultrafast Microscopy
Dr. Tal Schwartz, *Tel Aviv University, Israel*

15:50 – 16:20 | Coffee Break and Posters Review of Topics: *Solar Energy and Spectroscopic and Optical Sensing*

16:20 – 17:50 | Parallel Session 6

Solar Energy

Dr. Iris Visoly-Fisher

♦ Coupling “Regular” Quantum Dots with Lead Halide Perovskites
Prof. Dan Oron, *Weizmann Inst. of Science, Israel*

♦ Magnetism in Nominally Non-Magnetic Semiconductor Nanocrystals
Prof. Efrat Lifshitz, *Technion – Israel Institute of Technology, Israel*

Luminescent Solar Power-Quantum Separation between Free-Energy and Heat For Cost-Effective Base-Load Solar Energy Generation
Prof. Carmel Rotschild, *Technion – Israel Institute of Technology, Israel*

Observing the Green Flash in the Laboratory
Prof. Stephen Lipson, *Technion – Israel Institute of Technology, and Ort Braude College, Karmiel, Israel*

Photon Management Utilizing Deep-Subwavelength Sidewall Features in Nanopillar Arrays for Broadband Absorption Enhancement of the Solar Radiation
Mr. Ashish Prajapati, *Ben Gurion University, Israel*

Key: ♦=Invited/Keynote Speaker

Tuesday, April 2, 2019

Hall B

11:50 – 13:20 | Parallel Session 4

Electro Optics Devices

Prof. Dan Marom

♦ Highly Integrated Silicon Photonic Subsystems For Real World Applications
Dr. Christopher Doerr, *Acacia Communications, USA*

The Multiple-Functionality of Double Injection
Mr. Roei Cohen, *Tel Aviv University, Israel*

Eight-Channel Dense-Wavelength-Division Multiplexer in Silicon Photonics
Mr. Dvir Monk, *Bar-Ilan University, Israel*

Maxwell Fisheye for Integrated Optics
Mr. Yaniv Blinder, *Weizmann Institute of Science, Israel*

Complex Fiber Micro Devices
Ms. Shir Shahal, *Bar Ilan University, Israel*

♦ Exploring 2.5 and 3D Integration to Meet the Bandwidth Density Challenge
Dr. Oded Raz, *TU/Eindhoven, Netherlands*

13:20 – 14:20 | Lunch Break (Lobby Floor)

13:50 – 14:20 | Posters Review of Topics: *Optical Engineering, and Ultrafast Phenomena*

14:20 – 15:50 | Parallel Session 5

Non-Linear Optics

Dr. Haim Suchowski

Opto-Mechanical Time-Domain Reflectometry
Mr. Gil Bashan, *Bar-Ilan University, Israel*

Observation of Strong Nonlinear Interactions in Parametric Down-Conversion of X-Rays into Ultraviolet Radiation
Mr. Or Sefi, *Bar-Ilan University, Israel*

THz Generation and Manipulation by a Nonlinear Metasurface Fresnel Zone Plate
Mr. Eviatar Minerbi, *Tel Aviv University, Israel*

Enhanced Frequency Doubling of High-Power CW Fiber Lasers in The Presence of Doubler Phase-Mismatch Through Injection of a Conjugate Seed Beam
Dr. Steven Jackel, *Civan, Israel*

Stabilizing Soliton-Based Propagation in Nonlinear Optical Waveguide Loops by Frequency-Dependent Linear Gain-Loss and the Raman Self-Frequency Shift
Dr. Avner Peleg, *Ort Braude College of Engineering, Israel*

Advantageous Hurdles in Rotational Echo Spectroscopy
Mrs. Dina Rosenberg, *Tel Aviv University, Israel*

15:50 – 16:20 | Coffee Break and Posters Review of Topics: *Solar Energy and Spectroscopic and Optical Sensing*

16:20 – 17:50 | Parallel Session 6

Spectroscopic and Optical Sensing

Dr. Ayala Ronen

Measuring the BRDF Optical Properties of Surfaces
Dr. Dan Sheffer, *IARD Sensing Solutions Ltd, Israel*

Toward UAV Based Compact Thermal Infrared Hyperspectral Imaging Solution for Real-time Gas Detection Identification and Quantification
Dr. Stefane Boubanga Tombet, *Telops Inc., France*

Multispectral and Thermal Detection Methods for Finding Missing Persons
Dr. Yishay Bruckental, *Institute of Superconductivity, Bar-Ilan University, IARD Sensing Solutions, Israel*

Snapshot Spectral Imaging Using Two Cameras, Optical Diffuser and Compressed Sensing Algorithms
Mr. Jonathan Hauser, *Tel Aviv University, Israel*

Silver Halide Fiber Sensors with Surface Chemistry for Specific Protein Immobilization Using Infrared Evanescent Wave Spectroscopy
Prof. H. Michael Heise, *South-Westphalia University of Applied Sciences, Germany*

Multi-Modal Fiber-Probe Spectroscopy for Tissue Diagnostics and Biological Fluid Sensing
Prof. Francesco Pavone, *LENS, Italy*

Key: ♦=Invited/Keynote Speaker

Tuesday, April 2, 2019

Hall C

11:50 – 13:20 | Parallel Session 4

Photonics in Defense

Dr. Joelle Schlesinger, Dr. Ami Yaacobi

♦ Performance Assessment of Electro-optical Imagers: TRM4 Model and Imaging Simulation
Dr. Stefan Kessler, *Fraunhofer Institute of Optronics, System Technologies, and Image Exploitation IOSB, Ettlingen, Germany*

Quantification of Human Color Perception Applied in TRM Model for Range Prediction of Imaging Color Systems
Dr. Ephi Pinsky, *RAFAEL Advanced Defense Systems Ltd. Israel*

New Devices and Materials for Infrared Detectors
Dr. Philip Klipstein, *SemiConductor Devices, Israel*

Applications of High Power Lasers in the Battlefield
Dr. Yehoshua Kalisky, *SCE Ashdod, Israel*

Breaking Through the Atmospheric Barrier
Dr. Daniel Golubchik, *Rafael, Israel*

13:20 – 14:20 | Lunch Break (Lobby Floor)

13:50 – 14:20 | Posters Review of Topics: *Optical Engineering, and Ultrafast Phenomena*

14:20 – 15:50 | Parallel Session 5

Photonics in Defense

Dr. Joelle Schlesinger, Dr. Ami Yaacobi

Mission Ready Optics: Conquering Frontiers in Aerospace & Defense Contamination Control with First Contact Polymers
Prof. James Hamilton, *UW Platteville, USA*

Controlled Distortion for Optical-Equivalent Zoom Lens with No Moving Parts
Mrs. Paula Roit, *Rafael, USA*

Lenses on Diet
Dr. Oded Arnon, *Applied Materials, Israel*

Bullet Speed System – Calibration Method
Dr. Uri Maurice, *QCC Hazorea, Israel*

♦ Photonic Integrated Interferometric Telescopes – Scalable and High-Resolution Imaging with 2D/3D Integrated Photonic Chips
Prof. S. J. Ben Yoo, *UC Davis, USA*

15:50 – 16:20 | Coffee Break and Posters Review of Topics: *Solar Energy and Spectroscopic and Optical Sensing*

16:20 – 17:50 | Parallel Session 6

Electro Optics in Industry

Dr. Rami Cohen

Optical Wafer Inspection Challenges – Optimizing Optical Configuration for Detection
Mr. Tal Kuzniz, *Applied Materials, Israel*

♦ Permanent USP Laser Marking of Stainless Steel Devices without Post-Processing
Mr. Daniel Seitz, *Coherent Munich GmbH&Co, Germany*

Early Detection of Fires from Space
Dr. Shimshon (Steven) Lashansky, *Elbit system, Israel*

Yb: YAG and Nd:YAG Crystals for High Energy DPSSL
Dr. Karel Nejezchleb, *CRYTUR, spol. s r.o., Czech Republic*

♦ The Recent Advances in Quantitative Imaging and Spectroscopy Instrumentation for EUV-SWIR Regime
Mr. Ravi Guntupalli, *Princeton Instruments, USA*

Key: ♦=Invited/Keynote Speaker

Tuesday, April 2, 2019

Hall D

11:50 – 13:20 | Parallel Session 4

Optical Engineering

Dr. Hanni Inbar

♦ Transforming Optical Networks Design – Intelligent Networks in the Nonlinear Regime
Prof. Polina Bayvel, *University College London, UK*

♦ Nonlinear Optical Holograms for Shaping of Light Beams
Prof. Ady Arie, *Tel Aviv University, Israel*

♦ Sub-Nanometer Overlay Metrology
Dr. Yuri Paskover, *KLA-Tencor, Israel*

Beam Shaping Based on Aspheres and Freeforms
Mr. Stefan Klinzing, *Aspericon GmbH, Germany*

Layout and Analysis of Fused Silica Precision Glass Molding Processes
Mr. Tim Grunwald, *Fraunhofer IPT, Fine Machining and Optics Department, Germany*

13:20 – 14:20 | Lunch Break (Lobby Floor)

13:50 – 14:20 | Posters Review of Topics: *Optical Engineering, and Ultrafast Phenomena*

14:20 – 15:50 | Parallel Session 5

Atomic and Quantum Optics

Dr. Barak Dayan

♦ Quantum Photonics for Computer Security and other Applications
Prof. Philip Walther, *University of Vienna, Austria*

♦ New Frontiers for Light Storage at Room Temperature
Dr. Ofer Firstenberg, *Weizmann Institute of Science, Israel*

Demonstration of a Two-Qubit Photon-Atom Gate and Engineering Quantum States of Light
Mr. Ziv Aqua, *Weizmann Institute of Science, Israel*

Quadrature Phase Detection in Atom Interferometry
Mr. Chen Avinadav, *Weizmann Institute of Science, Israel*

Squeezing-Enhancement of Stimulated and Spontaneous Raman Spectroscopy
Mr. Yoad Michael, *Bar-Ilan University, Israel*

15:50 – 16:20 | Coffee Break and Posters Review of Topics: *Solar Energy and Spectroscopic and Optical Sensing*

16:20 – 17:50 | Parallel Session 6

Electro Optics Devices

Prof. Dan Marom

♦ Integrated Nanophotonics Technology and Applications
Prof. Yeshaiahu Fainman, *University of California, San Diego, USA*

Superconducting Light-Emitting Diode
Mr. Shlomi Bouscher, *Technion – Israel Institute of Technology, Israel*

E-SWIR High Operating Temperature P-N Photodetectors
Mrs. Inbar Shafir, *Soreq, Israel*

Optical Gas Imaging Using Liquid Crystal Absorption Properties
Dr. Karni Wolowelsky, *Technion – Israel Institute of Technology, Israel*

♦ Chip-Scale Metrology: Coupling and Interfacing Atoms, Kerr Frequency-Combs and Cavitie
Dr. Liron Stern, *National Institute for Standards and Technology, CO, USA*

Key: ♦=Invited/Keynote Speaker

Tuesday, April 2, 2019

Hall E - IFLA

11:50 - 13:20 | Parallel Session 4

Fiber Lasers and Applications II

Dr. Zachary Sacks

♦ Unconventional High-Power Fiber Lasers for Improved Wavelength Coverage
Prof. Johan Nilsson, *University Southampton UK*

♦ Recent Developments in High Power Industrial Fiber Lasers
Prof. Scott Christensen, *IPG Photonics, USA*

♦ Advanced Fiber Laser Design with Pulse-On-Demand for Next Generation Airborne Lidar Applications
Dr. Doron Barness, *VGen, Israel*

♦ Multi KW, High Power Laser with Single Mode (SM) Dynamic Beam using Coherent Beam Combining (CBC)
Dr. Benayahu Urbach, *Civan Ltd., Israel*

Fiber Optic Distributed Acoustic Sensing (DAS) Data Processing via Artificial Neural Networks
Mrs. Lihi Shiloh, *Tel Aviv University, Israel*

13:20 - 14:20 | Lunch Break (Lobby Floor)

13:50 - 14:20 | Posters Review of Topics: *Optical Engineering, and Ultrafast Phenomena*

14:20 - 15:50 | Parallel Session 5

Ultrafast Fiber Sources and Related Applications

Dr. Zeev Zalevsky

♦ Coherent Pulse Stacking Amplification – Extending Fiber Chirped Pulse Amplification by Two Orders of Magnitude
Prof. Almantas Galvanauskas, *University of Michigan, USA*

♦ The Myths, the Reality, and the Unexplored Potential of SESAM Technology for Mode-Locking
Prof. Mircea Guina, *Tampere University, Finland*

♦ Tailoring the Spectral Response in Fibers by Localized Fs Laser Modifications
Prof. Stefan Nolte, *FSU, Germany*

♦ Asynchronous Optical Sampling Technique for Pump-Probe Measurements
Dr. Benjamin Sprenger, *Menlo Systems, Germany*

♦ Megawatt Single-Mode Lasers
Prof. Frank Wise, *Cornell University, USA*

15:50 - 16:20 | Coffee Break and Posters Review of Topics: *Solar Energy and Spectroscopic and Optical Sensing*

16:20 - 17:50 | Parallel Session 6

Fiber Components

Prof. Amiel Ishaaya

♦ Functionalized Micro-Nano-Fibres and Hybrid Photonic Crystal Fibres: The Role of New Materials
Prof. George Kakarantzas, *Theoretical and Physical Chemistry Institute, Athens, Greece*

♦ In-Fiber Speckle-Based Interferometry for Fabric Integrated, Non-Contact Bio-Sensor of Vital Signs
Prof. Zeev Zalevsky, *Bar Ilan University Israel*

♦ Water-Wave Lasers
Prof. Tal Carmon, *Technion - Israel Institute of Technology, Israel*

Improved Sensitivity and Spatial Resolution in Fiber Bragg Gratings Dynamic Strain Sensing System via Iterative Soft Thresholding Algorithm
Mr. Roy Shen-Tzur, *Tel Aviv University, Israel*

High Resolution Heterodyne Measurement of Phase Shifted Fiber Bragg Gratings
Dr. Garry Berkovic, *Soreq, Israel*

Key: ♦=Invited/Keynote Speaker