

**Monday April 1, 2019**

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|---------------|---|--|---|--|---|
| 08:00 - 09:00 | Coffee and Registration   |  |   |  |   |
| 09:00 - 10:55 | Opening Session - Plenary Hall  |  |   |  |   |
| 09:00 - 09:30 | <b>Chairperson: Prof. Abraham Katzir, Chairman of Oasis 2019</b>  |  |   |  |   |
| 09:30 - 10:15 | <b>Plenary Lecture:</b> Passion Extreme Light<br><b>Prof. Gérard Mourou</b> , Nobel Prize Winner, École Polytechnique, Palaiseau, France  |  |   |  |   |
| 10:15 - 10:55 | <b>Plenary Lecture:</b> Seeing the Unseen in Patients: Advancing Disease Prevention and Treatment through Microimaging<br><b>Prof. Guillermo Tearney</b> , 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  |  |   |  |   |
| 11:30 - 13:00 | Parallel Session 1  |  |   |  |   |
|               | <b>Hall A</b>   | <b>Hall B</b>  | <b>Hall C</b>   | <b>Hall D</b>  | <b>Hall E</b>   |
|               | <b>Optical Engineering</b><br><i>Dr. Hanni Inbar</i>  | <b>Lasers and Applications</b><br><i>Dr. Ariel Bruner</i>  | <b>Medicine and Biology</b><br><i>Prof. Dror Fixler</i><br>Sponsored by: Hamamatsu  | <b>Electro Optics in Industry</b><br><i>Dr. Rami Cohen</i>   | <b>IFLA: Specialty Fiber</b><br><i>Dr. Yoav Sintov</i>  |
|               | +   | +  | +   | +  | +   |
|               | Photonics-Based Particle Acceleration<br><b>Prof. Peter Hommelhoff</b> , Friedrich Alexander University Erlangen-Nuremberg, Germany   | Challenges in Further Power Scaling of Single-Mode Fiber Lasers<br><b>Prof. Liang Dong</b> , Clemson University, USA   | Wide-field Time-correlated Single Photon Counting (TCSPC) for Fluorescence Lifetime Imaging (FLIM) Microscopy<br><b>Prof. Klaus Suhling</b> , King's College London, UK                                     | Optimize Electro-Optics Mechanical Design for Additive Manufacturing<br><b>Mr. Elad Yosef</b> , Elbit Systems-ISTAR, Israel                  | Materials Development for Advanced Optical Fibers<br><b>Prof. John Ballato</b> , Clemson University, USA  |
|               | +   | +  | +   |  | +   |
|               | SWIR to Visible Up-Conversion Devices Development<br><b>Prof. Gabby Sarusi</b> , Ben-Gurion University, Israel  | Femtosecond Pulse Generation by Using Single-Layer Graphene and Voltage-Controlled Graphene Supercapacitor Structures<br><b>Prof. Alphan Sennaroglu</b> , Koç University, Turkey       | All Optical Monitoring of Cancer Treatment Efficiency with Overtone Absorption Spectroscopy on Microfibers with Random Surface Roughness<br><b>Prof. Alina Karabchevsky</b> , Ben-Gurion University, Israel | Embedded 3D Interconnects in Glass Substrates by a Combined Laser Trenching and Printing Process<br><b>Mr. Yuval Berg</b> , Orbotech, Israel | Image Transport through Glass-Air Disordered Optical Fiber<br><b>Prof. Axel Schülzgen</b> , CREOL, USA  |
|               |   |  |   |  | +   |
|               | Non-Paraxial Fourier and Fresnel Optics in Design of Diffractive Optical Elements and Meta-Surfaces<br><b>Prof. Michael A. Golub</b> , Tel Aviv University, Israel  | Axiparabola: A Long Focal Depth, High Resolution Mirror for Broadband High Intensity Lasers<br><b>Mr. Slava Smartsev</b> , Weizmann Institute of Science, Israel                       | Improved Photoacoustic Image Reconstruction of Clinical Data<br><b>Dr. Idan Steinberg</b> , Stanford School of Medicine, USA  | State Of The Art Precision Metrology with Ultra-Low-Noise Optical Frequency Combs<br><b>Dr. Benjamin Sprenger</b> , Menlo Systems, Germany   | Large Mode Area Fiber Designs for Megawatt Peak Power Generation in REPUSIL-Based Tapered Amplifiers<br><b>Dr. Matthias Jäger</b> , IPHT, Germany |
|               |   |  |   |  | +   |
|               | Joint Design of Optics and Post-Processing Algorithms Based on Deep Learning for Generating Advanced Imaging Features<br><b>Mr. Shay Elmalem</b> , Tel Aviv University, Israel  | Micron Precision Assembly for Sensors and Laser Systems on a Reconfigurable Industrial Platform<br><b>Mr. Tobias Mueller</b> , Fraunhofer Institute for Production Technology, Germany | Advanced Fiber Optic Solutions for Biomed Photonics in 0.3-16µm Range<br><b>Dr. Viacheslav Artyushenko</b> , Art Photonics GmbH, Germany  | Development of Thin Glass-based Technologies for Photonic System Integration<br><b>Dr. Henning Schröder</b> , Fraunhofer IZM, Germany        | Mode Area Scaling Through a Multicore Supermode Fibre<br><b>Prof. Seongwoo Yoo</b> , NTU, Singapore   |
|               |   |  |   |  |   |
|               | A K-Domain Method for Fast Propagation of Electromagnetic Fields through Graded-Index Media<br><b>Ms. Huiying Zhong</b> , LightTrans International UG, Germany  | High Energy Tunable Narrow Bandwidth Tm:YAP Laser<br><b>Dr. Salman Noach</b> , Jerusalem College of Technology, Israel   | Infrared Fiber-Optic Sensing Method for Early Detection of Melanoma and other types of Skin Cancer<br><b>Mrs. Svetlana Basov</b> , Tel Aviv University, Israel  | Review on Free Form Optics: Advantages and Challenges Of An Emerging Technology<br><b>Mr. Raginski Igor</b> , Rafael, Israel                 |   |
|               |   |  |   |  |   |
|               |   |  | Automated Transscleral Laser Trabeculoplasty<br><b>Dr. Zachary Sacks</b> , Belkin Laser Ltd., Israel  |  |   |
| 13:00 - 13:30 | Lunch Break   |  |   |  |   |
| 13:30 - 14:00 | Poster Review of Topics: Electro Optics in Industry and Medicine and Biology  |  |   |  |   |

14:00 - 15:30

Parallel Session 2

| Hall A  | Hall B  | Hall C   | Hall D   | Hall E  |
|---|---|--|--|---|
| <b>Micro and Nano Optics</b><br><i>Prof. Koby Scheuer</i>   | <b>Atomic and Quantum Optics</b><br><i>Dr. Barak Dayan</i>  | <b>Medicine and Biology</b><br><i>Prof. Dror Fixler</i><br>Sponsored by: Hamamatsu   | <b>Start-up Session</b><br><i>Ms. Salit Lev</i>  | <b>IFLA: Mid-IR Fibers and Sources</b><br><i>Prof. Amiel Ishaaya</i>  |
| +   | +   | +  |  | +   |
| Kerr-Microresonator Solitons for Ultraprecise Measurements<br><b>Dr. Scott Papp</b> , <i>NIST and University of Colorado, USA</i>   | Quantum-Dot Quantum Nanophotonics<br><b>Prof. Nir Rotenberg</b> , <i>University of Copenhagen, Denmark</i>                                  | On-Chip Silicon Photonic Biosensors<br><b>Prof. Sharon Weiss</b> , <i>Vanderbilt University, USA</i>   | <b>Prof. Gabby Sarusi</b><br>SenSWIR<br><b>Dr. Yaakov Amitai</b><br>Oorym  | Silica-Based Hollow-Core Optical Fibres: A New Paradigm for the Mid-Infrared<br><b>Prof. Jonathan Knight</b> , <i>University of Bath, UK</i>                |
| Parametrical Optomechanical Oscillations in Microbubble Resonators: Suppression, Enhancement and Route to Chaos<br><b>Dr. Silvia Soria</b> , <i>IFAC-CNR Institute of Applied Physics "N. Carrara", Italy</i> | Effect of Stokes Shift on Polariton Dynamics<br><b>Prof. Jussi Toppari</b> , <i>University of Jyväskylä, Finland</i>                        | Stain-Free Quantitative Phase Imaging of Sperm Cells for In Vitro Fertilization<br><b>Prof. Natan T. Shaked</b> , <i>Tel Aviv University, Israel</i> | <b>Mr. Ran Bar-Yosef</b><br>Spectralics<br><b>Dr. Zachary Sacks</b><br>Belkin Lasers<br><b>Prof. Ibrahim Abdulhalim</b><br>Photonicsys | Recent Advances in Mid-Infrared Fiber Lasers<br><b>Prof. Real Valle</b> , <i>Laval University, Canada</i>   |
| Optomechanically-Driven Microstructures for Targeted Drug Delivery Applications<br><b>Dr. Pavel Ginzburg</b> , <i>Tel Aviv University, Israel</i>   | Quantum Free-Electron Wavepacket Interactions with Light and Matter<br><b>Prof. Avraham Gover</b> , <i>Tel Aviv University, Israel</i>      | Three Photon Adaptive Optics for in-vivo Mouse Brain Imaging.<br><b>Dr. David Sinfeld</b> , <i>Cornell University, USA</i>                           | <b>Dr. Assaf Anderson</b><br>MaterialsZone<br><b>Mr. Ofer Harpak</b><br>Oxitone<br><b>Dr. Ilya Fine</b><br>Elfi-Tech                   | Bringing Infrared Fiber Components to the Market<br><b>Mr. Eric Geoffrion</b> , <i>Thorlabs (Formerly IR-Photonics), Canada</i>                             |
| Optical Skyrmions: A New Texture of Light<br><b>Mr. Shai Tsesses</b> , <i>Technion – Israel Institute of Technology, Israel</i>   | Strong Coupling of THz Fields to Collective Molecular Vibrations<br><b>Dr. Sharly Fleischer</b> , <i>Tel Aviv University, Israel</i>        | Imaging Tympanic Membrane Surface Vibrations - In Vivo<br><b>Mr. Matan Hamra</b> , <i>Technion – Israel Institute of Technology, Israel</i>          | <b>Dr. Dan Haronian</b><br>Enervibe<br><b>Prof. Yossef Ben-Ezra</b><br>Cellowireless<br><b>Dr. Cristina Canavesi</b><br>LighTopTech    | Fiber-Bulk Hybrid Mid-Infrared Lasers Based on Transition Metal Doped Ceramic Chalcogenides<br><b>Prof. Sergey Mirov</b> , <i>University of Alabama, US</i> |
| Spin-Locking In 2D and 3D Plasmonic Structures<br><b>Dr. Yuri Gorodetski</b> , <i>Ariel University, Israel</i>  | Photonic Quantum Walks with Cyclic Geometry as Versatile Quantum Simulators<br><b>Dr. Eilahu Cohen</b> , <i>Bar Ilan University, Israel</i> | Eye Tracking Control in Visual Prostheses<br><b>Prof. Avi Caspi</b> , <i>Jerusalem College of Technology, Israel</i>                                 | <b>Mr. Jon Donner</b><br>Nano-Fabrica<br><b>Mr. Eduardo Svetliza</b><br>RetSight<br><b>Mr. Itai Hayot</b><br>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

| Hall A  | Hall B  | Hall C  | Hall D   | Hall E  |
|---|---|---|--|---|
| <b>Micro and Nano Optics</b><br><i>Prof. Koby Scheuer</i>   | <b>Lasers and Applications</b><br><i>Dr. Ariel Bruner</i>   | <b>Spectroscopic and Optical Sensing</b><br><i>Dr. Ayala Ronen</i>  | <b>Non-Linear Optics</b><br><i>Dr. Haim Suchowski</i>  | <b>IFLA: Fiber Lasers and Applications I</b><br><i>Dr. Boaz Lissak</i>  |
| Multifunctional Spectrally Interleaved Geometric Phase Metasurface<br><i>Dr. Elhanan Maguid, Technion – Israel Institute of Technology, Israel</i>  | +<br>Progress in VECSEL Technology and Emerging Applications<br><i>Prof. Mircea Guina, Tampere University, Finland</i>  | +<br>Atmospheric Optics: Beauty and Science<br><i>Prof. Joseph A Shaw, Montana State University, USA</i>  | +<br>Quantum Design of Coherent X-rays with Spin and Orbital Angular Momentum<br><i>Prof. Tenio Popmintchev, University of California San Diego, USA</i> | +<br>Prospects in Power Scaling of Coherently Coupled Fiber Lasers and Amplifiers<br><i>Prof. Andreas Tunermann, FSU, Germany</i>           |
| Guiding Surface Plasmon Polaritons on Curved Surfaces<br><i>Mrs. Ana Libster-Hershko, Tel Aviv University, Israel</i>   | +<br>An Overview of the Israeli Consortium on Advanced Laser Technologies for Industrial Applications (ALTIA)<br><i>Dr. Kobi Lasri, V-Gen Ltd., MKS Spectra-Physics, Israel</i>         | +<br>Accurate Synchronization of Spectrometers for Laser Induced Breakdown Spectroscopy Using New CMOS Sensors<br><i>Dr. Thomas Rasmussen, Ibsen Photonics, Denmark</i>   | +<br>Loss of Time Reversibility in Absorption-Free Focusing Media<br><i>Mr. Amir Sagiv, Tel Aviv University, Israel</i>                                  | +<br>Amplifiers and Lasers with Active Tapered Double Clad Fibers<br><i>Prof. Valery Filippov, Ampliconix, Finland</i>                      |
| Reconfigurable Semiconductor Metasurface Resonators<br><i>Dr. Tomer Lewi, Bar-Ilan University, Israel</i>   | +<br>Optically Pumped Flip-Chip Wafer-Fused Vecsels Emitting at 1.55- $\mu$ m Wavelength<br><i>Prof. Eli Kapon, Ecole Polytechnique Federale de Lausanne-EPFL, Switzerland</i>          | +<br>Design of an All-Optical Ultrasound Transducer Based on a Microcavity Resonator<br><i>Dr. Silvia Soria, IFAC-CNR Institute of Applied Physics "N. Carrara", Italy</i>  | +<br>High Energy KGW/Tm:YLF Raman Laser<br><i>Mr. Uzziel Sheintop, Jerusalem College of Technology, Israel</i>   | +<br>Beam Cleaning Effects in Multimode LD-Pumped GRIN-Fiber Raman Laser<br><i>Prof. Sergey Babin, Novosibirsk State University, Russia</i> |
| Non-Equilibrium Theory of "Hot" Electron Generation in Plasmonic Nanostructures under Illumination – Thermal vs. Non-Thermal Effects<br><i>Dr. Yonatan Sivan, Ben-Gurion University, Israel</i> | +<br>Towards Room Temperature Operation of Terahertz Quantum Cascade Lasers: Carrier Leakage Engineering as a Novel Design Concept<br><i>Dr. Asaf Albo, Bar Ilan University, Israel</i> | +<br>NDIR Gas Measurement in Harsh Environments by Advanced IR Components and Packaging Technologies<br><i>Mr. Steffen Biermann, Micro-Hybrid Electronic GmbH, Germany</i>  | +<br>Thermo-Optical Nonlinearity of Single Metallic Nanoparticle<br><i>Dr. Ieng Wai Un, Ben-Gurion University, Israel</i>                                | +<br>High Pulse Energy Single Frequency 1.55micron Fiber Amplifiers<br><i>Dr. Shijin Jiang, AdValue, US</i>                                 |
| Optimization of Coupling Gratings for Lightguide-Based Displays<br><i>Ms Huiying Zhong, Friedrich-Schiller-Universität Jena, Germany</i>  | +<br>Micron-Scale Additive Manufacturing Using Laser Transfer of Metals<br><i>Mr. Niv Gorodesky, Bar-Ilan University, Additive Manufacturing Lab, Orbotech Ltd, Israel</i>              | +<br>Measurements and Modeling of Laser Propagation in Fog and Clouds<br><i>Dr. Ofer Yaron, RAFAEL, Israel</i>  | +<br>Indefinitely Switchable Nonlinear Optical Nanoantennas for Ultrafast Stream Cryptography<br><i>Dr. Roman E. Noskov, Tel Aviv University, Israel</i> | +<br>Robust Setup for Generation of High-Power CW Green Laser<br><i>Dr. Yishai Albeck, Civan Ltd, Israel</i>                                |
| Random Topological Defects-Induced Spin-Enabled Photonic Transport by Metasurfaces<br><i>Dr. Bo Wang, Technion – Israel Institute of Technology, Israel</i>                                     |   | +<br>Application of Hyper-Spectral LIF-LIDAR Based on ICCD for Detection and Identification of Bio-Aerosol Clouds & Studying its Formation Dynamic<br><i>Dr. Ofir Shoshanim, Israel Institute for Biological Research, Israel</i> |  |   |

**Tuesday April 2, 2019**

08:00 - 09:00 *Coffee and Registration*

09:00 - 11:30 **Opening Session - Plenary Hall**

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*

**Parallel Session 4**

| Hall A  | Hall B   | Hall C   | Hall D  | Hall E   |
|---|--|--|---|--|
| <b>Solar Energy</b><br><i>Prof. David Cahen</i>   | <b>Electro Optics Devices</b><br><i>Prof. Dan Marom</i>  | <b>Photonics in Defense</b><br><i>Dr. Joelle Schlesinger, Dr. Ami Yaacobi</i>  | <b>Optical Engineering</b><br><i>Dr. Hanni Inbar</i>  | <b>IFLA: Fiber Lasers and Applications I</b><br><b>Fiber Lasers and Applications II</b><br><i>Dr. Zachary Sacks</i>                                    |
| +   | +  | +  | +   | +  |
| Experimental Realization and Theoretical Understanding of High Open-Circuit Voltages in LeadHalide Perovskites<br><b>Prof. Thomas Kirchartz</b> , University of Duisburg-Essen, Germany | Highly Integrated Silicon Photonic Subsystems For Real World Applications<br><b>Dr. Christopher Doerr</b> , Acacia Communications, USA | Performance Assessment of Electro-optical Imagers: TRM4 Model and Imaging Simulation<br><b>Dr. Stefan Kessler</b> , Fraunhofer Institute of Optronics, System Technologies, and Image Exploitation IOSB, Germany | Transforming Optical Networks Design - Intelligent Networks in the Nonlinear Regime<br><b>Prof. Polina Bayvel</b> , University College London, UK | Unconventional High-Power Fiber Lasers for Improved Wavelength Coverage<br><b>Prof. Johan Nilsson</b> , University Southampton, UK                     |
| +   | +  | +  | +   | +  |
| Stability Studies of Perovskite PV Materials and Devices Using Concentrated Sunlight<br><b>Dr. Iris Visoly-Fisher</b> , Ben-Gurion University, Israel                                   | The Multiple-Functionality of Double Injection<br><b>Mr. Roei Cohen</b> , Tel Aviv University, Israel                                  | Quantification of Human Color Perception Applied in TRM Model for Range Prediction of Imaging Color Systems<br><b>Dr. Ephi Pinsky</b> , RAFAEL Advanced Defense Systems Ltd. Israel                              | Nonlinear Optical Holograms for Shaping of Light Beams<br><b>Prof. Ady Arie</b> , Tel Aviv University, Israel                                     | Recent Developments in High Power Industrial Fiber Lasers<br><b>Prof. Scott Christensen</b> , IPG Photonics, USA                                       |
| +   | +  | +  | +   | +  |
| Low Dimensional Perovskite: Stability, Solar Cells and Nanostructures<br><b>Prof. Lioz Etgar</b> , The Hebrew University of Jerusalem, Israel   | Eight-Channel Dense-Wavelength-Division Multiplexer in Silicon Photonics<br><b>Mr. Dvir Monk</b> , Bar-Ilan University, Israel         | New Devices and Materials for Infrared Detectors<br><b>Dr. Philip Klipstein</b> , Semiconductor Devices, Israel  | Sub-Nanometer Overlay Metrology<br><b>Dr. Yuri Paskover</b> , KLA-Tencor, Israel  | Advanced Fiber Laser Design with Pulse-On-Demand for Next Generation Airborne Lidar Applications<br><b>Dr. Doron Barness</b> , VGen, Israel            |
| +   | +  | +  | +   | +  |
| Photovoltaics for Internet of Things vs. Solar Power—the Optics Factor<br><b>Mr. Barry Breen</b> , 3GSolar Photovoltaics Ltd, Israel  | Maxwell Fisheye for Integrated Optics<br><b>Mr. Yaniv Blinder</b> , Weizmann Institute of Science, Israel                              | Applications of High Power Lasers in the Battlefield<br><b>Dr. Yehoshua Kalisky</b> , Shalom College of Engineering, Israel  | Beam Shaping Based on Aspheres and Freeforms<br><b>Mr. Stefan Klinzing</b> , Asphericon GmbH, Germany   | Multi KW, High Power Laser with Single Mode (SM) Dynamic Beam using Coherent Beam Combining (CBC)<br><b>Dr. Benayahu Urbach</b> , Civan Ltd., Israel   |
| +   | +  | +  | +   | +  |
| On Optimization of Heliostat Fields for Solar Central Receiver Plants<br><b>Dr. Pinchas Doron</b> , Azrieli College of Engineering, Israel  | Complex Fiber Micro Devices<br><b>Ms. Shir Shahal</b> , Bar-Ilan University, Israel  | Breaking Through the Atmospheric Barrier<br><b>Dr. Daniel Golubchik</b> , Rafael, Israel   | Layout and Analysis of Fused Silica Precision Glass Molding Processes<br><b>Mr. Tim Grunwald</b> , Fraunhofer IPT, Germany                        | Fiber Optic Distributed Acoustic Sensing (DAS) Data Processing via Artificial Neural Networks<br><b>Mrs. Lihi Shiloh</b> , Tel Aviv University, Israel |
| +   | +  | +  | +   | +  |
| Exploring 2.5 and 3D Integration to Meet the Bandwidth Density Challenge<br><b>Dr. Oded Raz</b> , TU/Eindhoven, Netherlands   |  |  |   |  |

13:20 - 14:20 *Lunch Break*

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

14:20 - 15:50

Parallel Session 5

| Hall A   | Hall B  | Hall C   | Hall D  | Hall E  |
|--|---|--|---|---|
| <b>Ultrafast Phenomena</b><br><i>Prof. Oren Cohen</i>  | <b>Non-Linear Optics</b><br><i>Dr. Haim Suchowski</i>   | <b>Photonics in Defense</b><br><i>Dr. Joelle Schlesinger, Dr. Ami Yaacobi</i>  | <b>Atomic and Quantum Optics</b><br><i>Dr. Barak Dayan</i>  | <b>IFLA: Ultrafast Fiber Sources and Related Applications</b><br><i>Prof. Zeev Zalevsky</i>   |
| +  |   |  | +   | +   |
| Spatiotemporal Dynamics of Optical Pulse Propagation in Multimode Fibers<br><b>Prof. Frank Wise, Cornell University, USA</b>                                 | Opto-Mechanical Time-Domain Reflectometry<br><b>Mr. Gil Bashan, Bar-Ilan University, Israel</b>   | Mission Ready Optics: Conquering Frontiers in Aerospace & Defense Contamination Control with First Contact Polymers<br><b>Prof. James Hamilton, UW Platteville, USA</b>  | Quantum Photonics for Computer Security and other Applications<br><b>Prof. Philip Walther, University of Vienna, Austria</b>                        | Coherent Pulse Stacking Amplification – Extending Fiber Chirped Pulse Amplification by Two Orders of Magnitude<br><b>Prof. Almantas Galvanauskas, University of Michigan, USA</b> |
| Self-Compressed Polarization Controlled Red Shifted Soliton from Supercontinuum for 1 $\mu\text{m}$ CPA Systems<br><b>Ms. Zaharit Refaeli, Soreq, Israel</b> | Observation of Strong Nonlinear Interactions in Parametric Down-Conversion of X-Rays into Ultraviolet Radiation<br><b>Mr. Or Sefi, Bar-Ilan University, Israel</b>  | Controlled Distortion for Optical-Equivalent Zoom Lens with No Moving Parts<br><b>Mrs. Paula Roit, Rafael, Israel</b>  | New Frontiers for Light Storage at Room Temperature<br><b>Dr. Ofer Firstenberg, Weizmann Institute of Science, Israel</b>                           | The Myths, the Reality, and the Unexplored Potential of SESAM Technology for Mode-Locking<br><b>Prof. Mircea Guina, Tampere University, Finland</b>                               |
| Interferometric Attosecond Lock-In Measurement of Extreme Ultraviolet Circular Dichroism<br><b>Dr. Doron Azoury, Weizmann Institute of Science, Israel</b>   | THz Generation and Manipulation by a Nonlinear Metasurface Fresnel Zone Plate<br><b>Mr. Eviatar Minerbi, Tel Aviv University, Israel</b>  | Lenses on Diet<br><b>Dr. Oded Arnon, Applied Materials, Israel</b>   | Demonstration of a Two-Qubit Photon-Atom Gate and Engineering Quantum States of Light<br><b>Mr. Ziv Aqua, Weizmann Institute of Science, Israel</b> | +   |
| Two-photon Excitation of an Exciton-Polariton Condensate<br><b>Mr. Nadav Landau, Technion – Israel Institute of Technology, Israel</b>                       | Enhanced Frequency Doubling of High-Power CW Fiber Lasers in The Presence of Doubler Phase-Mismatch Through Injection of a Conjugate Seed Beam<br><b>Dr. Steven Jackel, Civan, Israel</b>                                   | Bullet Speed System – Calibration Method<br><b>Dr. Uri Maurice, QCC Hazorea, Israel</b>  | Quadrature Phase Detection in Atom Interferometry<br><b>Mr. Chen Avinadav, Weizmann Institute of Science, Israel</b>                                | +   |
| +  |   | +  |   | +   |
| Revealing the Motion of Hybrid Light-Matter Excitations by Ultrafast Microscopy<br><b>Dr. Tal Schwartz, Tel Aviv University, Israel</b>                      | Stabilizing Soliton-Based Propagation in Nonlinear Optical Waveguide Loops by Frequency-Dependent Linear Gain-Loss and the Raman Self-Frequency Shift.<br><b>Dr. Avner Peleg, Ort Braude College of Engineering, Israel</b> | Photonic Integrated Interferometric Telescopes--- Scalable and High-Resolution Imaging with 2D/3D Integrated Photonic Chips<br><b>Prof. S. J. Ben Yoo, UC Davis, USA</b> | Squeezing-Enhancement of Stimulated and Spontaneous Raman Spectroscopy<br><b>Mr. Yoad Michael, Bar-Ilan University, Israel</b>                      | Megawatt Single-Mode Lasers<br><b>Prof. Frank Wise, Cornell University, USA</b>   |
|  | Advantageous Hurdles in Rotational Echo Spectroscopy<br><b>Mrs. Dina Rosenberg Tel Aviv University, Israel</b>  |  |   |   |

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

| Hall A   | Hall B   | Hall C  | Hall D  | Hall E  |
|--|--|---|---|---|
| <b>Solar Energy</b><br><i>Dr. Iris Visoly-Fisher</i>   | <b>Spectroscopic and Optical Sensing</b><br><i>Dr. Ayala Ronen</i>   | <b>Electro Optics in Industry</b><br><i>Dr. Rami Cohen</i>  | <b>Electro Optics Devices</b><br><i>Prof. Dan Marom</i>   | <b>IFLA: Fiber Components</b><br><i>Prof. Amiel Ishaaya</i>   |
| +  |  | +   | +   | +   |
| Coupling "Regular" Quantum Dots with Lead Halide Perovskites<br><b>Prof. Dan Oron</b> , Weizmann Inst. of Science, Israel  | Measuring the BRDF Optical Properties of Surfaces<br><b>Dr. Dan Sheffer</b> , IARD SENSING SOLUTIONS LTD, Israel   | Optical Wafer Inspection Challenges – Optimizing Optical Configuration for Detection<br><b>Mr. Tal Kuzniz</b> , Applied Materials, Israel                           | Integrated Nanophotonics Technology and Applications<br><b>Prof. Yeshaiah Fainman</b> , University of California, USA   | Functionalized Micro-Nano-Fibres and Hybrid Photonic Crystal Fibres: The Role of New Materials<br><b>Prof. George Kakarantzas</b> , Theoretical and Physical Chemistry Institute, Greece              |
| +  |  | +   |   | +   |
| Magnetism in Nominally Non-Magnetic Semiconductor Nanocrystals<br><b>Prof. Efrat Lifshitz</b> , Technion - Israel Institute of Technology, Israel  | Toward UAV Based Compact Thermal Infrared Hyperspectral Imaging Solution for Real-time Gas Detection Identification and Quantification<br><b>Dr. Stefane Boubanga Tombet</b> , Telops Inc., France                             | Permanent USP Laser Marking of Stainless Steel Devices without Post-Processing<br><b>Mr. Daniel Seitz</b> , Coherent Munich GmbH&Co, Germany                        | Superconducting Light-Emitting Diode<br><b>Mr. Shlomi Bouscher</b> , Technion – Israel Institute of Technology, Israel  | In-Fiber Speckle-Based Interferometry for Fabric Integrated, Non-Contact Bio-Sensor of Vital Signs<br><b>Prof. Zeev Zalevsky</b> , Bar Ilan University Israel   |
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| Luminescent Solar Power—Quantum Separation between Free-Energy and Heat For Cost-Effective Base-Load Solar Energy Generation<br><b>Prof. Carmel Rotschild</b> , Technion, Israel                                 | Multispectral and Thermal Detection Methods for Finding Missing Persons<br><b>Dr. Yishay Bruckental</b> , Bar-Ilan University, IARD Sensing Solutions, Israel  | Early Detection of Fires from Space<br><b>Dr. Shimshon (Steven) Lashansky</b> , <b>Michael Gilchinsky</b> and <b>Yuval Erez</b> , Elop, Elbit system, Israel        | E-SWIR High Operating Temperature P-N Photodetectors<br><b>Mrs. Inbar Shafir</b> , Soreq, Israel  | Water-Wave Lasers<br><b>Prof. Tal Carmon</b> , Technion – Israel Institute of Technology, Israel  |
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| Observing the Green Flash in the Laboratory<br><b>Prof. Stephen Lipson</b> , Technion – Israel Institute of Technology, and Ort Braude College, Karmiel, Israel  | Snapshot Spectral Imaging Using Two Cameras, Optical Diffuser and Compressed Sensing Algorithms<br><b>Mr. Jonathan Hauser</b> , Tel Aviv University, Israel  | Yb:YAG and Nd:YAG Crystals for High Energy DPSSL<br><b>Dr. Karel Nejezchleb</b> , <b>Jana Precliková</b> , <b>Štěpán Uxa</b> , CRYTUR, spol. s r.o., Czech Republic | Optical Gas Imaging Using Liquid Crystal Absorption Properties<br><b>Dr. Karni Wolowelsky</b> , Technion – Israel Institute of Technology, Israel                         | Improved Sensitivity and Spatial Resolution in Fiber Bragg Gratings Dynamic Strain Sensing System via Iterative Soft Thresholding Algorithm<br><b>Mr. Roy Shen-Tzur</b> , Tel Aviv University, Israel |
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| Photon Management Utilizing Deep-Subwavelength Sidewall Features in Nanopillar Arrays for Broadband Absorption Enhancement of the Solar Radiation<br><b>Mr. Ashish Prajapati</b> , Ben-Gurion University, Israel | Silver Halide Fiber Sensors with Surface Chemistry for Specific Protein Immobilization Using Infrared Evanescent Wave Spectroscopy<br><b>Prof. H. Michael Heise</b> , South-Westphalia University of Applied Sciences, Germany | The Recent Advances in Quantitative Imaging and Spectroscopy Instrumentation for EUV-SWIR Regime<br><b>Mr. Ravi Guntupalli</b> , Princeton Instruments, USA         | Chip-Scale Metrology: Coupling and Interfacing Atoms, Kerr Frequency-Combs and Cavities,<br><b>Dr. Liron Stern</b> , National Institute for Standards and Technology, USA | High Resolution Heterodyne Measurement of Phase Shifted Fiber Bragg Gratings<br><b>Dr. Garry Berkovic</b> , Soreq, Israel   |
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|  | Multi-Modal Fiber-Probe Spectroscopy for Tissue Diagnostics and Biological Fluid Sensing<br><b>Prof. Francesco Pavone</b> , LENS, Italy  |   |   |   |

Key: + Invited/Keynote Speaker