



International Conference & Exhibition on Optics & Electro-Optics 10-11 March, 2025 | David InterContinental Hotel, Tel-Aviv, Israel

		Monday March 10, 2025						
	08:00 - 09:00	Breakfast & registration						
		- Company of the Comp						
	09:00-09:20	Chairperson: Prof. Abraham Katzir, Chairman of Oasis 2025						
	09:20-09:25							
	09:25-09:35	Opening: Guy Shasha, Chairman of the The Association of Engineers, Architects and Graduates in Technological Sciences in Israel Opening: Dr. Alon Stopel, Chairman of the Innovation Authority and Chief Scientist for Innovation at the Ministry of Innovation, Science and						
Technology								
	09:35-10:20	O Plenary lecture: Artificial Intelligence and Cyber Security Prof. Isaac Ben-Israel, Director, Cyber Research Center, Tel-Aviv University						
	10:20 - 11:05							
	10.20 11.03	Prof. Avinoam Zadok, Faculty of Electrical and Computer Engineering, Technion						
	11:05 - 11:30							
		11:30 - 13:00 Parallel Session 1						
		Hall A	Hall B	Hall C	Hall D	Hall E		
		Optical Engineering	Atomic and Quantum	Lasers and Applications	Electro-Optics in	Electro-Optics in		
		Dr. Tali Hurvitz	Optics Dr. Ofer Kfir	Dr. Shaul Pearl Session independently sponsored by EKSMA OPTICS	Industry Dr. Alex Ayalon Session independently sponsored by	Defense Mr. Dov Oster Session independently sponsored by RAFAEL ADVANCED DEFENSE SYSTEMS LTD.		
		Invited - 30' Prof. Uriel Levy Department of Applied Physics, Center for nanoscience and nanotechnology, The Hebrew University of Jerusalem Metasurfaces: Capabilities and limitations	Invited - 30' Prof. Maria Chekhova Max Planck Institute for the Science of Light, Erlangen, Germany Quantum measurement through parametric amplification	Invited - 30' Dr. Liad Levi Rafael Advanced Defense System High power DPAL (Diode Pumped Alkali Laser)	Invited - 20' Dr. Eyal Shekel Civan Lasers Dynamic beam laser for welding and metal additive manufacturing: Advancing fiber Laser technology through coherent beam combining and optical phased arrays	15' Dr. Mara Baraban <i>Rafael Advanced Defense System</i> Experimental approaches to optical atmospheric turbulence measurements		
		Invited - 30' Prof. Natan Shaked Department of Biomedical Engineering, Tel Aviv University Holographic multiplexing for acquiring wavefronts of rapid dynamics for optical metrology applications	15' Mr. Stav Lotan Technion – Israel Institute of Technology Leveraging sparsity for efficient detection of entanglement in high	15' Dr. Yaakov Glick Lasers Department, Applied Physics Division Soreq NRC 40mJ energy, high power, pulsed all-fiber amplifier	Invited - 20' Dr. Yoram Karni SCD Advancements in miniaturization, weight reduction, and power optimization for infrared imaging systems by SCD	15' Dr. Zeev Schiffer Elbit Systems, iSTAR Division-Elop Pros and cons for Super- Gaussian based CBC		
		15' Mr. Mor Elgarisi Technion - Israel Institute of Technology Fluidic approach to corrective eyewear manufacturing	15' Mr. Shaul Katznelson Technion - Israel Institute of Technology Superfluorescent scintillation from coupled Perovskite quantum dots	15' Mr. Nitzan Haviv Department of Physics and Solid-State Institute, Technion Noise suppression in gain-managed nonlinear amplifiers	Invited - 20' Dr. Rani Ditcovski Triarii Research Quantum key distribution demonstration	15' Dr. David El-Chai Ben- Ezra Soreq NRC Tuning event camera biases heuristic for detection applications in staring scenarios		
		Mr. Ariel Ashkenazy Bar-Ilan University All-optical, computation- free time-multiplexing super-resolved imaging based on speckle illumination	15' Dr. Shay Elmalem Department of Physics of Complex Systems, Weizmann Institute of Science Massively multiplexed wide-field photon correlation sensing	15' Prof. Salman Noach Jerusalem College of Technology Widely tunable, pulsed Tm:YAP laser, based on an Active / Passive Q switch with Yag etalons	Invited - 15' Mr. Andrés Cifuentes ASE OPTICS, Spain Compact high-resolution LWIR optical system for the Earth Observation in support of smart farming	Invited - 30' BG (res.) Eytan Eshel IAI, EVP R&D, technology and innovation (CTO) Innovation in a defense company		
			15' Mr. Gilad Pollack Tel-Aviv University Correlation of purely spatial bell-state measurements in event- based single-photon camera	15' Dr. Zaharit Refaeli Soreq NRC Bandwidth control and frontal contrast for a high-joule mixed Nd:glass ultrafast laser for proton acceleration	Invited - 15' Mr. Aviv Ronen Beckermus Technologies Advancing photonic and optic chip packaging: challenges and technological solutions			
13:00 - 14:00 Lunch Break		Lunch Break						

14:00) - 14:15	Poster Review				
			14:15 - 15:45	Parallel Sessi	on 2	
		Hall A	Hall B	Hall C	Hall D	Hall E
		Spectroscopy and Optical Sensing Prof. Tal Ellenbogen	Prof. Ilya Goykhman Session independently sponsored by	Start-Up's Pitch Dr. Aviv Zeevi	Nonlinear Optics Prof. Avinoam Zadok	Optics in Medicine and Biology Prof. Yuval Garini Session independently sponsored by Acktar Advanced Gatings
		Invited - 30' Prof. Dr. Christoph Lienau University of Oldenburg, Institute of Physics, Germany Two-dimensional electronic spectroscopy of many-body correlations in quantum materials Invited - 25' Prof. Shaya Fainman University of California, San Diego Foundry enabled chip- scale photonics technology and applications Mr. Mordechai Rodgold Quantum Pulse LTD Integrated Photonics	Invited - 20' Prof. Guy Bartal Faculty of Electrical and Computer Engineering, Technion Nonlinear optics for real- time nanoscopy	Invited - 25' Prof. Dror Fixler Faculty of Engineering, Bar Ilan University Self-calibrated single- wavelength biosensor for extracting cardiac parameters		
		15' Mr. Tamir Shpiro Technion – Israel Institute of Technology 4D near-field electron tomography	Invited - 25' Dr. Boris Desiatov Bar Ilan Institute of Technology Integrated photonics on thin-film lithium niobate	Atlantis Photonics, Semiconductors Mr. Eyal Terkieltaub Lee Tervizio Lidar Sensors Mr. Boaz Mell	Mr. Yaakov Neustadter Soreq NRC Kerr frequency comb generation in Saddle- Shape microresonators	Invited - 25' Prof. Ori Katz Institute of Applied Physics, The Hebrew University of Jerusalem Noninvasive megapixel fluorescence microscopy through scattering layers by a virtual incoherent reflection matrix
		15' Mr. Idan Kizel Tel Aviv University Stacking-dependent photoluminescence modulation in bilayer and trilayer 3R-MoS2 via asymmetric dielectric environments	an Kizel iv University ng-dependent luminescence ation in bilayer ilayer 3R-MoS2 wmmetric dielectric Dr. Grisha Spektor Octave Photonics Atomic-photonic interfaces via linear and nonlinear photonics for the real world Devices Mr. Dotan Duek Spiral Photonics Imaging, Photonics Dr. Eyal Hollander	Quantum Sensors, Medical Devices Mr. Dotan Duek Spiral Photonics Imaging, Photonics Dr. Eyal Hollander	14' Dr. Gil Bashan <i>Tel Aviv University</i> Optically programable quasi phase matching in four-wave mixing	Invited - 25' Dr. Raya Sorkin School of Chemistry, Tel Aviv University Optical tweezers provide insight into membrane remodeling
		Invited - 30' Prof. Yehonadav Bekenstein Technion - Israel Institute of Technology Engineering fast emitters using halide perovskite nanocrystal heterostructures and superlattices	15' Mr. Eitan Kaminski Technion – Israel Institute of Technology Waveguide integrated MoS2-based photodetectors in the shortwave IR	Frenel Imaging Ltd. Thermal Imaging Mr. Arik Nir LiteBC Medical Devices Dr. Or Peleg Laser Team Medical Ltd. Mr. Pini Ben-Elazar Quantum Source Quantum Computing Dr. Yair Margalit FVMat Materials, Optics Mr. Guy Ben-Dov Sky-Walls LTD Smart Building Ms. Hilany Yelloz	Mr. Alon Krause Bar-llan University Highly-efficient and stable Second Harmonic Generation (SHG) from para red organic crystals	10' Ms. Tamar Harary Andrew and Erna Viterbi Faculty of Electrical & Computer Engineering, Technion Large-field-of-view optical-resolution optoacoustic microscopy employing a stationary silicon-photonics acoustic detector for both reflection and transmission imaging configurations
					14' Ms. Naama Harcavi Ben Gurion University of the Negev Optical nonlinearity of transparent conducting oxides - more metallic than realized	10' Mr. Jonathan Jeffet School of Physics and Astronomy, Tel Aviv University Multi-color super- resolution imaging using spectral confocal spinning disk image scanning microscopy
		Coffoo brook and Postors ro			14' Ms. Sutapa Ghosh University of Maryland, MD, USA Strong tunable nonlinearity in atomic vapor induced by an optical frequency comb	

	16:15 - 17:45	Parallel Sessi	on 3	
Hall A	Hall B	Hall C	Hall D	Hall E
Micro and Nano Optics	Quantum Computers	Ultrafast Phenomena	Artificial Intelligence in	Lasers and Applications
Prof. Alina Karabchevsky	Prof. Nadav Katz	Dr. Marcus Gilad	Optics Prof. Yoav Shechtman	Dr. Shaul Pearl Session independently sponsored by
Invited - 30' Prof. Tal Carmon Photonic Enhancement Laboratory, School of Electrical Engineering, Faculty of Engineering, Tel Aviv University Introducing new phases of matter to microphotonics	Invited - 30' Prof. Barak Dayan Weizmann Institute of Science and Quantum Source Labs Atom-mediated large- scale photonic quantum computing	Invited - 25' Dr. Ofer Neufeld Technion - Israel Institute of Technology Ultrafast magnetism: novel control schemes and probes	Invited - 25' Prof. Ron Kimmel The Technion Montreal Chair in Sciences Professor of Computer Science Professor of Electrical & Comp. Eng. (courtesy) Learning geometry: Some recent bits	15' Mr. Shmuel Freudenstein Civan Lasers Enhanced free space optical communication (FSOC) by coherent beam combining with optical phased array lasers
Invited - 30' Prof. Dan Marom The Institute of Applied Physics, The Hebrew University of Jerusalem 3D-nanoprinted photonic solutions	Invited - 30' Prof. Yaron Bromberg Racah Institute of Physics at the Hebrew University of Jerusalem Boosting photonic quantum computation with multi-qubit encoding in single photons	12' Dr. Yariv Shamir <i>Soreq NRC</i> Widely wavelength-tunable amplified all-normal-dispersion laser aimed to excite Thorium-229 VUV transition	Invited - 25' Prof. Natan Shaked Department of Biomedical Engineering, Tel Aviv University Deep2Deep: Label-free interferometric imaging for automatic classification and virtual staining of biological cells	15' Dr. Omri Wolf <i>LightSolver LTD</i> LightSolver's all-optical laser-based analog computer
Invited - 20' Dr. Itai Epstein Tel Aviv University Nanometer-scale phononic resonators for far-infrared radiation	15' Mr. Roey Shafran Technion – Israel Institute of Technology Tomography of hyperentangled single photon states with a single measurement setup	12' Ms. Gili Scharf Tel Aviv University Coherent control of phonon anharmonicity	10' Mr. Oded Rotem Ben Gurion University Brightfield to fluorescence microcopy transfer via diffusion models	15' Dr.Yaniv Vidne Civan Lasers Development of a 130kW high-power fiber laser system with enhanced reliability and compactness based on CBC technology
10' Mr. Matan Slook Technion - Israel Institute of Technology Highly reconfigurable silicon-photonic filter stage		12' Mr. Omri Meron Tel Aviv University Shaping exciton polarization dynamics in 2D semiconductors by tailored ultrafast pulses	10' Mr. Dafei Xiao Technion - Israel Institute of Technology A one-click software for PSF-engineering-based 3D localization microscopy	15' Dr. Aviran Halstuch School of Electrical and Computer Engineering, Ben-Gurion University of the Negev Femtosecond inscription of fiber Bragg gratings and Fabry-Perot interferometers structures for various applications
10' Dr. Jacob Engelberg The Hebrew University of Jerusalem Nature inspired design methodology for a wide field of view achromatic metalens		12' Mr. Tomer Bucher Technion-Israel Institute of Technology Ultrafast dynamics of correlated optical singularities	10' Ms. Dana Aharoni Department of Biomedical Engineering, Tel Aviv University Al-aided rapid cell classification using label- free interferometric imaging flow cytometry	15' Mr. Aaron Liberman Weizmann Institute of Science Algorithmically measuring the spectrally resolved wavefront of an ultrashort laser
		12' Mr. Yoad Aharon The Hebrew University of Jerusalem Mechanism of resonant enhancement in HHG	10' Dr. Amir Handelman Holon Institute of Technology Flexible polymeric all- optical logic gates	15' Mr. Ya'akov Mandelbaum Jerusalem College of Technology (JCT) - Lev Academic Center Advanced optical analysis of focal-point divergence between surgical neodymium-doped yttrium aluminum Garnet (Nd:YAG) and aiming beam lasers

		Tuesday	March 11, 202	5	
08:00 - 09:00	Coffee and registration				
09:00 - 10:00	Opening session - Plenary Hall				
09:00 - 09:05	Chairperson: Prof. Abraha	m Katzir, Chairman of Oasis 2			
09:05-09:10	Start-up session: Promising i				
09:10- 09:50					
09:10-09:50					
	Beyond the Iron Dome - Shaping the Future of Israeli Innovation Brig. Gen. (Ret.) Dr. Daniel Gold, Head of DDR&D, Israeli Directorate of Defense Research & Development, at the Israeli Ministry of Defense				sraeli Ministry of Defense
09:50 - 10:30 Plenary lecture: High Power Laser Defense					
	Mr. Oded Ben David, CTO E	Elbit Systems ISTAR & EW ELO	P		
10:30 - 10:50		C	Coffee break and Posters revi	ew	
		10:50 - 12:20	Parallel Sess	ion 4	
	Hall A	Hall B	Hall C	Hall D	Hall E
	Atomic and Quantum	Electro-Optics Devices	Optical Engineering	Nonlinear Optics	Artificial Intelligence in
	Optics Dr. Ofer Kfir	Prof. Ilya Goykhman	Dr. Tali Hurvitz	Prof. Avinoam Zadok	Optics Prof. Yoav Shechtman
	Invited - 30'	Invited - 25'	Invited - 30'	Invited - 25'	Invited - 25'
	Dr. Ran Finkelstein School of Physics and Astronomy, and Tel Aviv Quantum Center, Tel Aviv University Atomic arrays as programmable quantum sensors and processors	Prof. Pavel Ginzburg Tel Aviv University Optics behind drug screening and delivery	Dr. Shany Danieli School of Physics and Astronomy, Tel Aviv University Revealing the hidden universe with telephoto lenses	Prof. Polina Bayvel Professor of Optical Communications & Networks. Dept of Electronic & Electrical Eng. Faculty of Engineering Sciences, UCL, London, England How wide can you go - the challenges in designing ultrawideband optical fibre communications Systems & networks	Prof. Adrian Stern Ben Gurion University How does deep learning help optics and what optics can do for deep learning?
	15' Mr. Amir Sivan Technion - Israel Institute of Technology Superradiating photon entanglement source with multilevel atoms	Invited - 25' Dr. Richard Pitwon Seagate Research / Resolute Photonics Heat assisted magnetic recording - The path the utra-high volume co-packaged optical integration	15' Mr. Omer Luria Technion - Israel Institute of Technology In-situ optical surface reconstruction of liquid mirrors in microgravity experiments	Mr. Daniil Ansimov The laboratory of Nanoscale Electro Optics, Tel Aviv University Enhanced second harmonic generation from a nonlinear plasmonic metasurface coupled to an optical waveguide in a LiNbO thin film	Invited - 20' Dr. Erez Yosef Electrical Engineering, Tel Aviv University DifuzCam: Replacing camera lens with a mask and a diffusion model
	15' Mr. Ariel Ashkenazy Bar-Ilan University Single-photon Raman interaction for realizing the photon-number splitting attack	Invited - 25' Dr. Roy Zekzter The Hebrew University of Jerusalem Electro-optic platforms for precision light-atom interactions	15' Mr. David Halfon The Hebrew University of Jerusalem 3D-printed coupling aids for efficiently interfacing silicon chip to rectangular core fiber	15' Mr. Yonatan Plotnik Technion – Israel Institute of Technology Momentum band gap engineering using noncolinear moving photonic time crystals	15' Prof. Alon Bahabad Tel-Aviv University Optical inference using nonlinear optical diffraction
	15' Mr. Ron Ziv Technion – Israel Institute of Technology Experimental phase retrieval of atomic matter waves	15' Ms. Vered Riven The Institute of Applied Physics, The Hebrew University of Jerusalem Line-by-line spectral amplitude/phase modulation of an optical frequency comb	Mr. Alon Geller Light Engineering Designing zoom lenses from scratch: using the varifocal differential equation	15' Dr. Miri Blau <i>Columbia University, NY, USA</i> Higher dimensional quantum photonics in the frequency domain	10' Mr. Matan Kleiner Technion – Israel Institute of Technology Coherence awareness in diffractive neural networks
	15' Dr. Georgi Gary Rozenman MIT Department of Physics. Group of Wolfgang Ketterle at MIT, MA, USA Prospects of free-space quantum key distribution using spatial modes of light: Scaling-up the dimensionality and the distance		15' Mr. Arie Amitzi QCC Hazorea Calibration Technologies Using fluorescence for laser beam alignment and measurements	Mr. Yuval Reches Tel Aviv University Efficient robust spontaneous parametric down-conversion via detuning modulated composite segments designs	10' Mr. Nimrod Shabtay Tel-Aviv University Deep phase coded image prior
				Mr. Barak Messika Department of Electrical and Computer Engineering and Solid-State Institute, Technion - Israel Institute of Technology Kerr beam self-cleaning of multi-millijoule pulses in large mode-area graded index fiber	10' Mr. Roy Maman The Hebrew University of Jerusalem Achromatic imaging systems with flat lenses enabled by deep learning

12:20 -	13:50	Lunch Break			
		13:50 - 15:20	D Parallel Session 5		
	Hall A	Hall B	Hall C	Hall D	Hall E
	Ultrafast Phenomena Dr. Marcus Gilad	Electro-Optics in Defense Mr. Dov Oster Session independently sponsored by RAFAEL ADVANCED DEFENSE SYSTEMS LTD.	Spectroscopy and Optical Sensing Prof. Tal Ellenbogen	Electro-Optics in Industry Dr. Alex Ayalon	Micro and Nano Optics Prof. Alina Karabchevsky
	Invited - 25' Prof. Michael Krueger Ultrafast Quantum Dynamics Group, Physics Department, Technion Attosecond physics in solids goes quantum	Invited - 30' Dr. Daniel Golubchik Rafael Advanced Defense Systems Adaptive optics for deep turbulence applications	Dr. Heinrich Ruser Institute for Applied Physics and Measurement Technology, University of the Bundeswehr Munich, Germany New single-particle TOF mass spectrometer coupled with deep learning for on- site classification of aerosol particles	Invited - 20' Dr. Hadar Greener Applied Materials Tailoring light-matter interactions for optical wafer inspection	Invited - 20' Prof. Stanislav Derevyanko Associate professor, School of Electrical and Computer Engineering, Ben Gurion University of the Negev, Beersheva, Israel Mode locking and rogue waves in Q-switched solid- state laser
	12' Ms. Or Refaely Bar Ilan University Temporal chirpless microscope	15' Dr. Dov Steiner <i>IARD Sensing Solution</i> New modeling features in TRM4 version 4	15' Mr. Omri Haim The Hebrew University of Jerusalem Image-guided computational holographic wavefront shaping	Invited - 20' Dr. Igor Turovets Nova Ltd. Optical methods for advanced packaging process control	20' Ms. Maya Shor Peled Ben Gurion University of the Negev Super-resolution imaging using photonic nanojet through tapered optical fiber
	12' Ms. Michal Elkind Tel Aviv University Intense laser interaction with micro-bars	15' Dr. Eyal Agassi Independent Consultant Estimating probabilities of cloud-free lines-of-sight through the atmosphere - Lund and Shanklin method revisited	Ms. Anabel Atash Tel Aviv University On the optical modeling of excitons in 2D semiconductors	Invited - 20' Dr. Shay Joseph Rafael Advanced Defense Systems Methods for protection of electro-optical seeker heads against electro- magnetic radio frequency interference	15' Dr. Asaf Farhi <i>Tel Aviv University</i> Observation of localized resonant phonon polaritons in biaxial α-MoO3 nanoparticles
	12' Ms. Shiri Gvishi Tel Aviv University Quantum paths interference signatures in trARPES	15' Dr. Ofer Yaron Rafael Advanced Defense Systems IR imaging quality prediction	15' Ms. Shahaf Noimark Bar Ilan University Non-destructive opto- mechanical analysis of fiber coating layers	Invited - 15' Dr. Aviran Halstuch Ben-Gurion University of the Negev Femtosecond laser welding of BK7 glass to aluminium alloys for industrial applications	15' Mr. Oded Schiller Technion – Israel Institute of Technology Negative index makes a perfect time lens
	12' Mr. Michael Tulchinsky Technion – Israel Institute of Technology Saturation model for photonic time crystals	15' Dr. Roy Gomel Israel Aerospace Industry (IAI) Optimization of the radiometric spectral band in target radiance estimation process	15' Mr. Ya'akov Mandelbaum Jerusalem College of Technology (JCT) – Lev Academic Center Tips vs. holes: ×10 higher scattering in FIB-made plasmonic nanoscale arrays for spectral imaging	15' Dr. Efi Rotem <i>MKS Instruments</i> Design of reference optical receiver with 50GHz bandwidth for use in high speed fiber optic systems	10' Mr. Amit Kam Technion - Israel Institute of Technology Total Angular momentum as a pathway to entangle surface-plasmon polaritons
	12' Mr. Aaron Liberman Weizmann Institute of Science Laser wakefield acceleration with an axiparabola and spatiotemporal couplings		15' Mr. Elad Zehavi Bar-Ilan University Generation of non-classical light in an all-fiber SU1,1 interferometer		10' Mr. Yehuda Baum Tel Aviv University Ultra-broadband wide- angle anti-reflection scheme utilizing multi-layer resonant metasurfaces
15:20 -	15:50	Coffee break and Posters review			

15:50 - 17:20 Parallel Session 6						
Hall A	Hall B					
Optics in Medicine and Biology Prof. Yuval Garini	Quantum Computers Prof. Nadav Katz					
Invited - 25' Prof. Dvir Yelin Faculty of Biomedical Engineering, Technion Imaging tympanic membrane vibrations	Invited - 30' Prof. Netanel Linder Associate Professor, Department of Physics, Technion TBC					
Invited - 25' Prof. Adrian Stern School of Electrical and Computer Engineering, Ben Gurion University Compressive sensing methods for rapid hyperspectral microscopy	Invited - 30' Prof. Shay Hacohen-Goury Department of Physics, Technion - Israel Institute of Technology Fast operations on Bosonic qubits in superconducting quantum circuits					
10' Prof. Salman Noach Jerusalem College of Technology Novel Ablative Tm:YAP pulsed laser for dermatology applications	15' Mr. Chen Scheim The Hebrew University of Jerusalem Quantum error correction with adiabatic quantum computation					
10' Ms. Eden Dotan Department of Biomedical Engineering, Tel Aviv University Label-free imaging flow cytometry using a motion sensitive camera for rare cell detection	15' Dr. Adi Pick The Hebrew University of Jerusalem Hybrid quantum annealing algorithms for combinatorial optimization with Rydberg qubits					
10' Dr. David Sinefeld Jerusalem College of Technology Planar objective design for multiphoton mouse brain imaging						
10' Mr. Ron Moisseev Technion - Israel Institute of Technology All-Optical approach to ultrasound transmission matrix measurement						