

Conference Program - Tuesday, May 31

08:30 - 09:30	Registration, Light Refreshments, Vendors Exhibition, Poster Mounting		
OPENING SESSION (Hall A)			
Session Chair:	Eyal Shimoni , ISM Chairperson		
09:30 - 10:00	Prof. Dan Shechtman and Prof. Wayne D. Kaplan , Technion - Israel Institute of Technology - <i>Greetings, opening remarks and presentation of the ISM Honorary Fellowship and the Lev Margulis Prizes</i>		
PLENARY SESSION #1 (Hall A)			
Session Chairs:	Wayne D. Kaplan , Technion - Israel Institute of Technology, Haifa Adi Salzberg , Technion - Israel Institute of Technology, Haifa		
10:00 - 10:45	Plenary Lecture: David A. Muller , Cornell University, USA MEASURING PHYSICAL AND ELECTRONIC PROPERTIES AT THE NANOSCALE		
10:45 - 11:15	Coffee Break and Vendors Exhibition		
11:15 - 12:00	Plenary Lecture: Ernst H.K. Stelzer , Goethe-Universität Frankfurt, Germany SUPER-RESOLUTION AND LIGHT SHEET-BASED FLUORESCENCE MICROSCOPY		
SOUND BITE SESSION (Hall A)			
Session Chair:	Louisa Meshi , Ben-Gurion University of the Negev, Beer Sheva		
12:00 - 12:30	Posters Sound Bites		
LUNCH SESSION			
12:30 - 13:30	Lunch and Vendors Exhibition		Lunch Workshops (5th floor)
13:30 - 14:30	Poster Session A (Hall A)	LIFE SCIENCES POSTERS (PA-1-17) MATERIALS SCIENCE POSTERS (PA-18-36)	ISM GENERAL ASSEMBLY (Hall C)
		DEVICE FABRICATION COMPETITION (PA-37-40) MICROGRAPH COMPETITION (PA-41-54) VENDORS EXHIBITION	
PARALLEL SESSIONS			
14:30 - 16:10	Materials Science MS1	Life Science LS1	Life Science LS2
16:10 - 16:40	Coffee Break and Vendors Exhibition		
16:40 - 18:20	Life Science LS3	Materials Science MS2	Materials Science MS3

Parallel Sessions - Tuesday, May 31

	MS1 / Hall A	LS1 / Hall B	LS2 / Hall C
Topic	ADVANCES IN ELECTRON MICROSCOPY IMAGING	IN-VIVO OPTICAL IMAGING	3D ELECTRON MICROSCOPY
Session chair	George Levi, Tel Aviv University, Tel Aviv	Michal Neeman, Weizmann Institute of Science, Rehovot	Ueli Aebi, University of Basel, Switzerland
14:30 - 15:00	Invited Lothar Houben, Weizmann Institute of Science, Rehovot ENERGY-FILTERED AND LOW-VOLTAGE CHROMATIC ABERRATION-CORRECTED HIGH-RESOLUTION TEM	Invited Kwanghun Chung, Massachusetts Institute of Technology (MIT), USA SCALABLE PROTEOMIC IMAGING OF INTACT BIOLOGICAL SYSTEMS	Invited Roland Fleck, King's College London, UK UNDERSTANDING INTRACELLULAR ORGANIZATION IN CELLS AS REVEALED BY 3D ELECTRON MICROSCOPY
15:00 - 15:20	Ute Kaiser, Ulm University, Germany PERFORMANCE AND FIRST RESULTS OF THE C₂/C₅-CORRECTED 20-80KV SALVE MICROSCOPE	Adi Schejter Bar-Noam, Technion - Israel Institute of Technology, Haifa TWO-PHOTON IN VIVO IMAGING OF THE MOUSE RETINA	Moran Shaiev Ben Ami, Weizmann Institute of Science, Rehovot INVESTIGATIONS OF EUKARYOTIC TRANSLATION MACHINERIES THROUGH SINGLE PARTICLE CRYO-EM
15:20 - 15:40	Roy Shiloh, Tel Aviv University, Tel Aviv PROSPECTS FOR ELECTRON BEAM ABERRATION CORRECTION USING SCULPTED PHASE MASKS	Vyacheslav Kalchenko, Weizmann Institute of Science, Rehovot A SIMPLE K-OMEGA ADAPTIVE METHOD TO REGISTER DYNAMIC MICROSCOPY IMAGE SEQUENCES	Elad Milrot, Weizmann Institute of Science, Rehovot THE BACTERIOPHAGE LIKE INFECTION OF THE LARGE EUKARYOTIC INFECTING VIRUS
15:40 - 16:10	Invited Semyon Shorfman, El-Mul Technologies, Ltd., Rehovot ENHANCING THE DETECTION OF VERTICALLY EMITTED SECONDARY ELECTRONS IN FIB SYSTEM BASED ON 3D ELECTRON TRAJECTORY SIMULATIONS	Invited Jackie Schiller, Technion - Israel Institute of Technology, Haifa USING TWO PHOTON MICROSCOPY FOR BRAIN RESEARCH	Invited Dorit Hanein, Sanford-Burnham Medical Research Institute, La Jolla, CA, USA NANOSCALE CHARACTERIZATION OF LEADING EDGE PROTRUSIONS OF WHOLE MAMMALIAN CELLS: A QUANTITATIVE CORRELATIVE CRYO-LIGHT AND ELECTRON CRYO-TOMOGRAPHY STUDY

Parallel Sessions - Tuesday, May 31

	LS3 / Hall A	MS2 / Hall B	MS3 / Hall C
Topic	MICROSCOPY IMAGE ANALYSIS TOOLS	SOFT AND HYBRID NANOMATERIALS	INTERFACES AND ENERGY RELATED MATERIALS
Session chair	Noam Ziv, Technion – Israel Institute of Technology, Haifa	Yael Levy-Kalishman, The Hebrew University of Jerusalem	Yaron Amouyal, Technion – Israel Institute of Technology, Haifa
16:40 - 17:10	Invited Chrysanthe Preza, The University of Memphis, Memphis, TN, USA ADVANCES IN COMPUTATIONAL IMAGING FOR QUANTITATIVE 3D FLUORESCENCE MICROSCOPY	Invited Gitti Frey, Technion – Israel Institute of Technology, Haifa USING HIGH RESOLUTION ELECTRON MICROSCOPY FOR STRUCTURE-PERFORMANCE CORRELATION IN ORGANIC AND HYBRID SOLAR CELLS	Invited Jordi Arbiol, Institut Català de Nanociència i Nanotecnologia, Bellaterra, CAT, Spain NON-PLANAR NANOSTRUCTURES AT ATOMIC SCALE: FROM ATOMIC STRUCTURE TO PHOTONICS IN THE (S)TEM
17:10 - 17:30	Avital Steinberg, Weizmann Institute of Science, Rehovot QUANTITATIVE ANALYSES OF PROTEIN ORGANIZATION IN VIVO	Maor Ram-On, Technion – Israel Institute of Technology, Haifa EFFECT OF POLYELECTROLYTE STIFFNESS AND SOLUTION PH ON THE NANOSTRUCTURE OF COMPLEXES FORMED BY CATIONIC AMPHIPHILES AND NEGATIVELY CHARGED POLYELECTROLYTES	Nir Kedem, Weizmann Institute of Science, Rehovot ELECTRON BEAM INDUCED CURRENT STUDY OF HALIDE PEROVSKITE-BASED SOLAR CELLS
17:30 - 17:50	Edward Morris, Institute of Cancer Research, UK THREE-DIMENSIONAL RECONSTRUCTION FROM CRYO-ELECTRON MICROSCOPE IMAGES OF SINGLE PARTICLES IN FOURIER SPACE USING A NEW PROGRAM, ICR3D	Luba Kolik Shmuel, Technion – Israel Institute of Technology, Haifa ONE-DIMENSIONAL SELF-ASSEMBLY OF DIACETYLENIC PHOSPHOLIPID INTO TUBULAR STRUCTURES	Hadar Nahor, Technion – Israel Institute of Technology, Haifa DISCERNING INTERFACE ATOMISTIC STRUCTURE BY PHASE CONTRAST IN STEM
17:50 - 18:20	Invited Shalev Itzkovitz, Weizmann Institute of Science, Rehovot SINGLE MOLECULE APPROACHES FOR STUDYING GENE EXPRESSION IN INTACT MAMMALIAN TISSUES	Invited Oren Regev, Ben-Gurion University of the Negev, Be'er Sheva STRONGER CEMENT	Invited Magnus Garbrecht, Linköping University, Linköping, Sweden THERMAL STABILITY AND MICROSTRUCTURAL EVOLUTION OF NITRIDE-BASED METAL/SEMICONDUCTOR SUPERLATTICES

Conference Program – Wednesday, June 1

08:30 - 09:00	Registration, Light Refreshments, Vendors Exhibition, Poster Mounting		
PLENARY SESSION #2 (Hall A)			
Session Chairs:	Dganit Danino , Technion - Israel Institute of Technology, Haifa Yossi Rosenwaks , Tel Aviv University, Tel Aviv		
09:00 - 09:45	Plenary Lecture: Paula da Fonseca , Cambridge Biomedical Campus, UK HIGH RESOLUTION CRYO-EM OF PROTEASOME COMPLEXES AS A NEW TOOL FOR THERAPEUTIC DRUG DEVELOPMENT		
09:45 - 10:15	Coffee Break and Vendors Exhibition		
10:15 - 11:00	Plenary Lecture: David N. Seidman , Northwestern University, USA CONTRIBUTIONS OF ATOM-PROBE TOMOGRAPHY TO THE SCIENCE AND DEVELOPMENT OF ALUMINUM-BASED SUPERALLOYS WITH COARSENING AND CREEP RESISTANCE UP TO 673 K		
SPECIAL JUBILEE SESSION #1 (Hall A)			
Session Chair:	Ruth Sperling , The Hebrew University of Jerusalem		
11:00 - 11:30	Jubilee Lecture: Martin Kessel , The Hebrew University of Jerusalem 50 YEARS OF THE ISRAEL SOCIETY OF MICROSCOPY – A RETROSPECTIVE		
SOUND BITE SESSION (Hall A)			
Session Chair:	Louisa Meshi , Ben-Gurion University of the Negev, Beer Sheva		
11:30 - 12:00	Posters Sound Bites		
LUNCH SESSION			
12:00 - 13:00	Lunch and Vendors Exhibition		Lunch Workshops (5th floor)
13:00 - 14:00	Poster Session B (Hall A)	LIFE SCIENCES POSTERS (PB-1-16) MATERIALS SCIENCE POSTERS (PB-17-37)	
	DEVICE FABRICATION COMPETITION (PA-37-40) MICROGRAPH COMPETITION (PA-41-54) VENDORS EXHIBITION		
PARALLEL SESSIONS			
14:00 - 15:40	Life Science LS4	Materials Science MS4	Materials Science MS5
15:40 - 16:10	Coffee Break and Vendors Exhibition		
16:10 - 17:50	Materials Science MS6	Life Science LS5	Life Science LS6
18:00 - 18:45	"Mysteries of the Unseen World" - Movie by FEI & National Geographic		
CONFERENCE DINNER – Almog Hotel			
19:15 - 22:00	Conference Dinner - Sponsored by FEI (Optional) Presentation of the FEI Company Award & Artistic program <i>18:50 Assemble for departure at the Conference venue entrance lobby - Ticket required.</i>		

Parallel Sessions - Wednesday, June 1

	LS4 / Hall A	MS4 / Hall B	MS5 / Hall C
Topic	CORRELATIVE LIGHT & ELECTRON MICROSCOPY	ADVANCES IN SPECTROSCOPY AND STM	ADVANCES IN CRYSTALLOGRAPHY AND ELECTRON DIFFRACTION
Session chair	Uri Ashery, Tel Aviv University, Tel Aviv	Hagai Cohen, Weizmann Institute of Science, Rehovot	Vladimir Ezersky, Ben-Gurion University of the Negev, Beer Sheva
14:00 - 14:30	Invited Bruno Humbel, University of Lausanne, Lausanne, Switzerland CORRELATIVE LIGHT AND ELECTRON MICROSCOPY IN CELL BIOLOGY	Invited Mathieu Kociak, CNRS/Université Paris Sud, Orsay, France NANOOPTICS WITH FAST ELECTRONS	Invited Ute Kolb, Johannes Gutenberg-University, Mainz, Germany SOLVING CHALLENGING CRYSTALLOGRAPHIC PROBLEMS WITH AUTOMATED ELECTRON DIFFRACTION TOMOGRAPHY
14:30 - 14:50	Margulis Gal Mor Khalifa, Weizmann Institute of Science, Rehovot BIOMINERALIZATION PATHWAYS IN A FORAMINIFER REVEALED USING A NOVEL CORRELATIVE CRYOFLUORESCENCE-SEM-EDS TECHNIQUE	Mahdi Halabi, Ben-Gurion University of the Negev, Beer Sheva MEASURING CHARGE DISTRIBUTION IN NANOSCALE MAGNESIUM ALUMINATE SPINEL BY ELECTRON ENERGY-LOSS SPECTROSCOPY AND ELECTRON HOLOGRAPHY	Margulis Ran Eitan Abutbul, Ben-Gurion University of the Negev, Beer Sheva SHAPE AND PHASE CONTROL OF NANOCRYSTALLINE π-SnS AND π-SnSe – NEW CUBIC PHASES IN THE TIN CHALCOGENIDE SYSTEM
14:50 - 15:10	Alon Weiner, Institut Pasteur, Paris, France CORRELATIVE FIB/SEM AND DYNAMIC MICROSCOPY REVEAL MACROPINOSOMES ARE KEY PLAYERS IN SHIGELLA INVASION	Pini Shekhter, Technion – Israel Institute of Technology, Haifa OD METALLIC BEHAVIOR AT THE $LaLuO_3 / SiTiO_3$ INTERFACE	Krzysztof Kudlacz, Institute of Metallurgy and Materials Science of Polish Academy of Sciences, Krakow, Poland CSPOT – A COMPUTER PROGRAM FOR SIMULATION, INDEXING AND ANALYSIS OF TEM DIFFRACTION PATTERNS
15:10 - 15:40	Invited Irina Kolotuev, University of Lausanne, Lausanne, Switzerland ARRAY TOMOGRAPHY BASED DIRECT 3D-CLEM APPROACH	Invited Yossi Rosenwaks, Tel Aviv University, Tel Aviv NANOSCALE ELECTRICAL CHARACTERIZATION OF SEMICONDUCTOR NANOWIRES	Invited Louisa Meshi, Ben-Gurion University of the Negev, Beer Sheva STUDY OF THE TERNARY Th-T-Al PHASES

Parallel Sessions - Wednesday, June 1

	MS6 / Hall A	LS5 / Hall B	LS6 / Hall C
Topic	LOW DIMENSIONAL MATERIALS	SPECIALIZED METHODS	DYNAMIC CELLULAR PROCESSES
Session chair	Doron Nave, Bar-Ilan University, Ramat-Gan	Dvir Yelin, Technion - Israel Institute of Technology, Haifa	Leah Gheber, Ben-Gurion University of the Negev, Beer Sheva
16:10 - 16:40	Invited Gil Markovich, Tel Aviv University, Tel Aviv VARIABLE TEMPERATURE STM STUDIES OF INDIVIDUAL MAGNETITE NANOCRYSTALS	Invited Niels de Jonge, NM – Leibniz Institute for New Materials, Saarbrücken, Germany IMAGING OF BIOLOGICAL SPECIMEN WITH LIQUID STEM, 3D STEM, IN SITU STEM, AND ABERRATION CORRECTED STEM. RESOLVING THE LOCATIONS OF INDIVIDUAL PROTEINS WITHIN THE CONTEXT OF INTACT CELLS	Invited Agnes Kittel, Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest, Hungary "GREAT EXPECTATIONS" OR CHALLENGES FOR TRANSMISSION ELECTRON MICROSCOPY IN THE IDENTIFICATION OF THE DIVERSE POPULATION OF EXTRACELLULAR VESICLES
16:40 - 17:00	Maya Bar Sadan, Ben-Gurion University of the Negev, Beer-Sheva FOLLOWING GROWTH PROCESSES OF NANOMATERIALS: INSIGHTS INTO THE ATOMIC SCALE	Shachar Sherman, Ben-Gurion University of the Negev, Beer Sheva RESOLVING NEW ULTRASTRUCTURAL FEATURES OF CYTOKINETIC ABSCISSION WITH SOFT-X-RAY CRYO- TOMOGRAPHY	Estee Kurant, Technion – Israel Institute of Technology, Haifa LIVE IMAGING OF APOPTOTIC CELL CLEARANCE IN DROSOPHILA EMBRYO
17:00 - 17:20	Maria Koffman Khristosov, Technion – Israel Institute of Technology, Haifa NANOPOROUS SINGLE CRYSTALS OF GOLD	Omer Wagner, Bar-Ilan University, Ramat-Gan ENHANCED LINEAR-OPTICS NANOSCOPY, USING OPTICAL-TWEEZERS	Ofer Shapira, Ben-Gurion University of the Negev, Beer Sheva REGULATION AND A POSSIBLE PHYSIOLOGICAL ROLE FOR THE BI-DIRECTIONAL MOTILITY OF THE BIOLOGICAL KINESIN-5 MOTOR PROTEIN, CINB
17:20 - 17:50	Invited Uri Banin, The Hebrew University of Jerusalem DIMENSIONALITY MATTERS: DIMENSIONALITY EFFECTS ON OPTOELECTRONIC BEHAVIOR OF SEMICONDUCTOR NANOCRYSTALS	Invited Amos Danielli, Bar-Ilan University, Ramat-Gan LABEL-FREE NONLINEAR PHOTOACOUSTIC NANOSCOPY AND SPECTROSCOPY	Invited Michael Brandeis, The Hebrew University of Jerusalem LIVE CELL IMAGING OF CELL CYCLE TRANSITIONS

Conference Program – Thursday, June 2

08:30 - 09:00	Registration, Light Refreshments, Vendors Exhibition	
PLENARY SESSION #3 (Hall A)		
Session Chairs:	Michael Elbaum , Weizmann Institute of Science Natalie Elia , Ben-Gurion University of the Negev, Beer Sheva	
09:00 - 09:45	Plenary Lecture: Peter Rez , Arizona State University, USA PUSHING BACK THE FRONTIERS OF ELECTRON MICROSCOPY: THEORY AS A GUIDE	
09:45 - 10:15	Coffee Break and Vendors Exhibition	
10:15 - 11:00	Plenary Lecture: Hari Shroff , National Inst. of Biomedical Imaging & Bioengineering, Bethesda, USA HIGH SPEED BIOLOGICAL IMAGING AT AND BEYOND THE DIFFRACTION LIMIT	
SPECIAL JUBILEE SESSION #2 (Hall A)		
Session Chairs:	Yuval Garini , Bar-Ilan University, Ramat-Gan Einat Zelinger , The Hebrew University of Jerusalem	
11:00 - 11:30	Hans J. Tanke , Leiden University Medical Center, The Netherlands HOW ADVANCED MICROSCOPY DEVELOPED IN 50 YEARS TO ANALYSE THE MOLECULAR MACHINERY IN CELLS	
11:30 - 12:00	Susan I. Anderson , University of Nottingham School of Medicine, UK EDUCATION AND OUTREACH AT THE ROYAL MICROSCOPICAL SOCIETY: DEVELOPING AND IMPLEMENTING A PROGRAMME FOR ALL- FROM SCHOOLS EDUCATION TO CPD FOR PROFESSIONAL MICROSCOPISTS	
LUNCH SESSION		
12:00 - 13:20	Lunch and Vendors Exhibition	Lunch Workshops (5th floor)
PARALLEL SESSIONS		
13:20 - 15:00	Materials Science MS7	Life Science LS7
CLOSING SESSION (Hall A)		
Session Chair:	Eyal Shimoni , ISM Chairperson	
15:00 - 15:30	Concluding remarks Best Poster, Best Micrograph & Best Device Fabrication Awards	
15:45	Departure for Conference Tour of Haifa (Sponsored by the Haifa municipality). <i>Assemble for departure at the Conference venue entrance lobby</i>	

Parallel Sessions - Thursday, June 2, 2016

	M57 / Hall A	LS7 / Hall C
Topic	IN SITU ELECTRON MICROSCOPY	SUPER RESOLUTION LIGHT MICROSCOPY
Session chair	Boaz Pokroy, Technion – Israel Institute of Technology, Haifa	Yuval Garini, Bar-Ilan University, Ramat-Gan
	Invited	Invited
13:20 - 13:50	Roland Kröger, University of York, UK	Markus Sauer, University of Würzburg, Germany
	OPPORTUNITIES AND LIMITATIONS OF ELECTRON MICROSCOPY IN LIQUID ENVIRONMENTS FOR IN SITU STUDIES OF CRYSTAL GROWTH AND DISSOLUTION	SUPER-RESOLUTION FLUORESCENCE IMAGING BY dSTORM
13:50 - 14:10	Ifat Kaplan-Ashiri, Weizmann Institute of Science, Rehovot	Shachar Schidorsky, The Hebrew University of Jerusalem
	DIRECT OBSERVATIONS OF INTERACTIONS BETWEEN WATER AND SINGLE WS₂ NANOTUBES—IN SITU SEM AND AFM STUDIES	USING TEMPORAL CORRELATIONS OF FLUORESCENCE INTENSITY TO IMPROVE SINGLE MOLECULE LOCALIZATION MICROSCOPY
14:10 - 14:30	Role Yerushalmi, The Hebrew University of Jerusalem	Pavel Sidorenko, Technion – Israel Institute of Technology, Haifa
	SYNTHESIS AND CHARACTERIZATION OF NANO-SCALE BUILDING BLOCKS WITH ELECTRONIC AND STRUCTURAL HETEROGENEITY BY POST-SYNTHESIS MODIFICATIONS	SINGLE-SHOT PTYCHOGRAPHY, OVERCOMING THE SCANNING-LIMITED TEMPORAL RESOLUTION AND ALSO DEMONSTRATE SPARSITY-BASED SUBWAVELENGTH PTYCHOGRAPHIC MICROSCOPY APPROACH, OVERCOMING THE ABBE SPATIAL RESOLUTION LIMIT
14:30 - 15:00	Invited Zahava Barkay, Tel Aviv University, Tel Aviv	Invited Natalie Elia, Ben-Gurion University of the Negev, Beer Sheva
	IN-SITU NANOSCALE WETTABILITY STUDY	VISUALIZING ESCRT MEDIATED MAMMALIAN CELL ABSCISSION AT NANOSCALE RESOLUTION