

Frontiers in Molecular Sciences - Program

Thursday, February 20th, 2014			
14:00-14:55	Registration & Welcome Refreshments		
14:55-15:00	Opening	Nimrod Moiseyev, On behalf of the organizing committee	
15:00-16:30	Session I	Chair: Uri Peskin, Technion	
15:00-15:30		Nir Ben Tal , Tel Aviv University	A global view of the protein universe
15:30-16:00		Ofir Alon , Haifa University	Many-Body Quantum Dynamics of Ultracold Trapped Bose Systems in 1D, 2D, and in 3D
16:00-16:30		Raam Uzdin , Hebrew University of Jerusalem	Entanglement Distillation, Unitary Embedding, and Majorization from the Non Hermitian Point of View
16:30-17:00	Coffee Break		
17:00-18:45	Session II	Chair: Nimrod Moiseyev, Technion	
17:00-17:30		Alex Kuleff , Heidelberg University	Ultrafast Electron Dynamics Following Ionization of Molecular Systems
17:30-18:00		Roie Volkovich , KLA-Tencor	Scanner Focus Dose Correction Application in Lithography Process
18:00-18:45		Cleanthes A. Nicolaides , National Hellenic Research Foundation, Athens, Greece	Theoretical Time-Resolved, Many-Electron Physics
19:00-20:00	Dinner in the Hotel		
20:15-22:00	Meeting in a local pub/coffee (self-paid)		
Friday, February 21st, 2014			
8:00-9:00	Breakfast in the Hotel		
9:00-11:30	Session III	Chair: Lenz S. Cederbaum, Heidelberg University	
9:00-9:45		Hossein R. Sadeghpour , ITAMP, Harvard University	Nucleation and Dynamics of Large Carbon-Rich Molecule Formation
9:45-10:00	Coffee Break		
10:00-10:30		Roni Pozner , Technion	Charge Transport Induced Recoil and Dissociation in Double Quantum Dots
10:30-11:00		Petra Ruth Kapralova , Heyrovsky Institute of Physical Chemistry (Prague)	Basis Set Aspects of Dynamical Simulations of a Driven Helium Atom
11:00-11:30		Etay Lavert-Ofir , Weizmann Institute of Science	Observation of Isotope Effect in Sub-Kelvin Reactions
11:30-16:00	Guided tour to the German Colony and Haifa Harbor Project (Lunch Box)		
16:15-17:45	Session IV	Chair: Nuphar Lipkin, Mellanox Technologies	
16:15-16:45		Hanna Martiskainen , Technion	The Conditions for the Applicability of the Adiabatic Theory for Atomic Systems in Strong Laser Fields
16:45-17:15		Ariel Levine , Technion	Short and Long DNA Bridges, and the Mechanism of Charge Transport Through Them
17:15-17:45		Saar Rahav , Technion	No-Pumping Theorem for Many Particle Stochastic Pumps
17:45-18:15	Coffee Break		
18:15-19:15	Session V	Chair: Ido Gilary, Technion	
18:15-		Idan Haritan , Technion	Realization of Exceptional Points in

18:45			the Spectrum of Li Dimer in Femtosecond Laser Fields
18:45-19:15		Naomi Rom , Hebrew University of Jerusalem	Decomposition of Hot, Dense Energetic Materials Using ReaxFF-MD
19:30-22:00	Conference Dinner in Zichron Yaakov restaurant		
Saturday, February 22nd, 2014			
8:00-9:00	Breakfast in the Hotel		
9:00-12:00	Session VI	Chair: Ronnie Kosloff, Hebrew University of Jerusalem	
9:00-9:30		Mariusz Pawlak , Nicolaus Copernicus University and Technion	Highly Excited Rydberg States of Rubidium Atom
9:30-10:00		Yuval Shagam , Weizmann Institute of Science	Photoassociation From Shape Resonances
10:00-10:30		Avner Fleischer , Technion	Bright High-Order Harmonics with fully controlled Polarization by wave-mixing pumps with controlled spins
10:30-11:00	Coffee Break		
11:00-11:30		Maytal Caspary-Toroker , Technion	Material Design of Transition Metal Oxide Alloys for Solar Energy Applications
11:30-12:00		Liat Levin , Technion	Femtosecond Coherent Control of Bond Making
12:00-16:00	Trip to Ramat Hanadiv, Zichron Yaakov and the Ralli Museum, Caesarea (Lunch Box)		
16:15-19:15	Session VII	Chair: Zohar Amitay, Technion	
16:15-16:45		-	
16:45-17:15		Tami Goldzak , Technion	IR Detector Based on ICD in Two Coupled Quantum Wells
17:15-17:45		Arik Landau , Technion	Coupled Cluster Based Methods for Open-Shell Electronic States; Application to the Low-Lying Neutral and Ionized States of the Experimentally Observed SnC and SnC ₂
17:45-18:15	Coffee Break		
18:15-18:45		Jan Smydke , Heyrovsky Institute of Physical Chemistry (Prague)	A New Optimization Method for Gaussian Basis Sets for Autoionizing and Lower Rydberg States
18:45-19:15		Alexander (Sasha) Kenis , Shutterfly Israel	From QM to Design of Photobooks
19:15-19:30	Concluding Remarks		
19:30-20:30	Dinner in the Hotel		
Sunday, February 23rd, 2014			
8:00-9:00	Breakfast in the Hotel		
9:00	Departure		