

09:00-09:15	Opening Remarks
09:15-10:50	First Lecture Session - Chair: Avinoam Rabinovich
09:15-9:35	Keren Shushan-Alshochat – Tel Aviv University Development of High Efficiency Nano-Structured Ratchets for Selective Ion Pumps
9:35-9:55	Nimrod Schwartz – Faculty of agriculture, Hebrew University of Jerusalem Revisiting the Role of Fluid Flow in Spectral Induced Polarization: Experimental Evidence and Pore-Scale Modeling
9:55-10:15	Ziv Moreno – Agricultural Research Organization Monitoring Water Dynamics during Drywell Infiltration Using Time Lapse Electrical Resistivity Tomography and a Semi Analytical Model
10:15-10:35	Yoav Green – Ben Gurion University Ion transport in nanopores, nanochannels, and ion-channels subjected to a combined ionic concentration
10:35-10:50	Coffee Break
10:50-12:10	Second Lecture Session - Chair: Yaniv Edrey
10:50-11:10	Yinon Yecheskel – Tel Aviv University Delivery of gas through porous media in nanobubble form: Fundamentals and applications
11:10-11:30	Alexandros Terzis – Technion Thermal and dynamic scaling of spontaneous imbibition in plasma treated paper strips
11:30-11:50	Ilan Ben Noach– Agricultural Research Organization Effect of flow dynamics on liquid-gas two-phase flow patterns in a two-dimensional millifluidic porous medium
11:50-12:10	Ron Gilad– Ben Gurion University Degradation of pore volume of porous chalk rocks: implications for geological hydrogen storage
12:10-14:10	Lunch + Poster Session
14:10-15:10	Third Lecture Session- Chair: Ines Zuker
14:10-14:30	Shay Nachum – Braude College Soil Water Potential in Porous Media: Concepts, Challenges, and Insights
14:30-14:50	Neta Frank – Technion Understanding Fertilizer Migration in Soil by Integrating Gravity, Sorption, and Transport: Modeling and Experiments
14:50-15:10	Phillip Vershinin – Weizmann Institute of Sciences Nanoplastic quantification and transport in sand and soil
15:10-15:25	Coffee Break
15:25-16:45	Fourth Lecture Session- Chair: Alexandros Terzis
15:25-15:45	Avinoam Rabinovich – Tel Aviv University Coreflooding without flooding: Gravity-capillary based multiphase flow core analysis for H ₂ /CO ₂ storage sites
15:45-16:05	Tamir Kamai – Agricultural Research Organization

	A methodology and model for drywell infiltration capacity using the infiltration rate-cumulative relationship.
16:05-16:25	David Russo – Agricultural Research Organization Stochastic Analyses of the Soil Water Content Standard Deviation - Mean Value Relationships: On the Physical Significance of the Critical Mean Soil Water Content.
16:25-16:45	Elazar Volk - Technion Pushing Pores to the Limit: Are Service Crops the Gatekeepers of Soil Pores?
16:45-17:00	Concluding remarks
17:00-18:00	Pizza and Beverages

Poster Session:

Ayelet Ben Kish Sharvit - BGU	A systematic approach to revealing the anomalous electrical response of bipolar nanofluidic systems
Evgeny Shavelzon - Technion	Linking evolution of preferential flow paths, transport self-organization and chemical weathering in porous media using non-equilibrium thermodynamics
Omer Eyal - HUJI	Microbial Spatial Organization in Soils
Tal Peri - TAU	Electrochemical Reduction-Oxidation Processes for the Removal of Perfluoroalkyl Substances (PFAS) from Water
Oree Stokelman - MIGAL	Effects of biofilm characteristics and porous medium structure on biofilm growth dynamics
Adi Nigri – TAU	Water Treatment Using Ozone Nanobubbles in Multiphase Environments
Ilil Levakov - MIGAL	The Influence of Pore Structural Complexity on Oxygen Distribution in Unsaturated Porous Media Using Microfluidic Soil-on-Chip Technology
Raziel Hernandez - TAU	Delivery of gas through porous media in nanobubble form: Effect of Nanobubble Characteristics
Shahar Shahrer - HUJI	Modeling the Influence of Fluid Flow on Surface Charge and Ion Exchange Reaction Rate Constants
Oded Bratman – Technion	A new Darcy experiment for gravel media
Avidan Ben Shabat - TAU	Relating Pore-Scale Two-Phase Flow to Darcy-Scale Models
Anirban Chakraborty - ARO	A physics based neural network for estimating sub-core permeability from two-phase flow coreflooding experiments
Gal Tzvik - HUJI	In situ evaluation of rhizosphere hydraulics upon pore structural and topological transformations