

# DIFFUSION FUNDAMENTALS X

SPREADING PHENOMENA IN NATURE, TECHNOLOGY AND SOCIETY:  
OBSERVATION, CLASSIFICATION AND COMPREHENSION

**TASHKENT, UZBEKISTAN**

6-8 SEPTEMBER 2023



**September 6-7-8, 2023**

**Day 1 – September 6, 2023**

08:30-09:00	<b>Registration</b>	
09:00-09:05	<b>Honorable Khilola Umarova</b> Minister of Preschool and School Education	
09:05-09:10	<b>Odil Abdurakhmanov</b> Advisor to the President on Youth, Science, Education, Health, Culture and Sports	
09:10-09:15	<b>Shlomo Weber</b> New Uzbekistan University & Co-Director, GEAR (HKUST)	
09:15-09:20	<b>Hans Wiesmeth</b> President, Saxon Academy of Sciences	
<b>Session 1</b>		
09:20-10:05	<b>Larry Blume</b> Cornell University	Diffusion of information in social networks
10:05 -10:50	<b>Steven Durlauf</b> University of Chicago	Diffusion of socioeconomic influences across generations
10:50-11:10	<b>Coffee Break</b>	
<b>Session 2</b>		
11:10-11:55	<b>Shlomo Weber</b> New Uzbekistan University & GEAR (HKUST)	Diffusion and Acquisition of Languages
11:55-12:40	<b>Aren M. Maeir</b> Bar Ilan University	Movement of Artifacts, People, and Ideas in Antiquity
12:40 – 13:40	<b>Lunch</b>	

<b>Session 3</b>		
13:45 – 14:30	<b>Monika Zin</b> Saxon Academy of Sciences	Routes of Trade and More: about the Diffusion of Western Art and Indian Tales
14:30 – 15:15	<b>Hans Wiesmeth</b> Saxon Academy of Sciences in Leipzig	Circular Economy
<b>15:15-15:30</b>	<b>Coffee Break</b>	
15:30-16:15	<b>Paul Castañeda Dower</b> University of Wisconsin	Control through Empowerment: Evidence from Nation-Building in Soviet Central Asia
16:15-17:00	<b>Antoine Parent</b> University of Paris 8	The diffusion of the Great Fear, France 1789. A view from cliometrics and complexity
17:00-17:45	<b>Ran Nathan</b> Hebrew University of Jerusalem	Elucidating the Mean Drivers that Shape Movements of Plants and Animals in the Wild
18:00	<b>Conference Dinner at NewUU</b>	

**Day 2 – September 7, 2023**

<b>Session 1</b>		
09:00-09:45	<b>Andreas Paul Fröba</b> Universität Erlangen-Nürnberg	Photon Correlation Spectroscopy to Characterize Diffusion
09:45 -10:30	<b>Marc-Olivier Coppens</b> University College London	Nature-Inspired Transport Optimization
10:30-11:15	<b>Coffee break</b>	
11:15-12:00	<b>Albrecht Fritzsche</b> Rabat Business School	Basic Topological Structures for the Diffusion of Innovations
12:00-12:45	<b>Boris Goldengorin</b> New Uzbekistan University	Pseudo-Boolean Polynomials in Data Aggregation and their Application
12:45-14:00	<b>Lunch</b>	
<b>Session 3</b>		
14:00 – 14:45	<b>Ulrich Tallarek</b> Philipps-Universität Marburg	Multiscale Simulation of Sorption and Diffusion in Porous Media
14:45 – 15:30	<b>Servar Abdullaev</b> New Uzbekistan University	
15:30-16:15	<b>Bobomurat Ahmedov</b> Ulugh Beg Astronomical Institute	Optical and Energetic Properties of Relativistic Compact Objects
16:15-17:00	<b>Coffee break</b>	
17:00-17:45	<b>Felix Hagemeyer</b> Leipzig University	Interactions and Exchange Processes as Driving Forces of Social Development in Ancient Palestine

17:45 -18:30	<b>Jean-Philippe Platteau</b> University of Namur	Institutional innovations: their origins and diffusion mechanisms
18:30-19:15	<b>Poster presentations</b>	<p>Diffusion of humans out of Africa and the phonemic diversity cline, by Joaquim Pérez-Losada and Joaquim Fort</p> <p>Confinement effects on distribution and transport of neutral solutes in a small hydrophobic nanopore, by Nicole Trebel</p> <p>Molecular dynamics simulation on self-diffusion coefficients of CO<sub>2</sub> in substituted amine,s by Qu Chen</p> <p>Diffusion and adsorption of 2-methylpentane and 3-methylpentane in silicalite-1 crystals, by Patricia Siedel</p>

**Day 3 – September 8, 2023**

<b>Session 1</b>	<b>Workshops</b>	
09:00-10:30	<p><b>Uwe Junghanns</b> University of Göttingen</p> <p><b>Gero Vogl</b> University of Vienna</p>	Diffusion of and in Language
10:30-11:30	<b>Jörg Kärger</b> Leipzig University	Diffusion in Nanoporous Materials
11:30-11:50	<b>Coffee break</b>	
11:50-12:35	<b>Paul Heitjans</b> Leibniz University Hannover	Better Battery Electrolytes by Optimizing Ion Transport
12:35-13:20	<p><b>Hans Wiesmeth</b> Saxon Academy of Sciences</p> <p><b>Gero Vogl</b> University of Vienna</p> <p><b>Jörg Kärger</b> Leipzig University</p>	Diffusion Fundamentals: Past, Presence and Future
13:20-13:35	<b>Closing Ceremony</b>	
	<p><b>Venue: Conference Hall</b></p> <p><b>Closing speech by</b> <b>Yuldashev Bakhtiyor</b>, Vice-rector of the New Uzbekistan University</p>	

	<p><b>Shlomo Weber</b>, NewUU and GEAR</p> <p><b>Appreciation and awards:</b> Awarding three professors with medals “<b>Honorary Professor</b>” (New Uzbekistan University); Gifts to active participants</p>
<b>13:35-14:30</b>	<b>Lunch</b>
14:30-19:00	<b>Tashkent City Tour</b>