

New
Uzbekistan
University

 Sächsische Akademie
der Wissenschaften zu Leipzig

GREATER EURASIA
RESEARCH CENTER

The program of the

Diffusion Fundamentals

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



Diffusion Fundamentals

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www.dfx.newuu.uz



Partners



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Scope

Continuing very successful series of nine conferences in Europe and the Americas, we cordially invite you to join us for the jubilee conference Diffusion Fundamentals X.

Bringing together scholars from economics, archaeology, ecology, epidemics, ethnology, linguistics, political science and sociology with biologists, chemists, physicists, mathematicians and engineers, Diffusion Fundamentals X strives to create an exciting exchange of ideas. It turns out that covering the particular challenges within each of these various disciplines uncovers astonishingly similar patterns of spreading phenomena.

Venue

Tashkent, the capital of Uzbekistan, is renowned for its vibrant cityscape and rich cultural heritage as one of the leading trading centers along the Great Silk Road. As a preferred destination for regional and international conferences, Tashkent offers a multitude of attractions that make it an ideal host for the upcoming Diffusion Fundamentals X conference at New Uzbekistan University.

Chairman



Prof. Shlomo Weber

New
Uzbekistan
University

GREATER EURASIA
RESEARCH CENTER
(HKUST)

Keynote Speakers

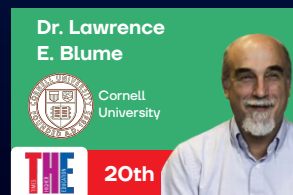


Kadir
Gulamov
Academy of
Science of
Uzbekistan



Dr. Steven
Durlauf
University
of Chicago

THE 13th



Dr. Lawrence
E. Blume
Cornell
University

THE 20th



Dr. Marc-Olivier
Coppens
University
College
London

THE 22th



Dr. Hans
Wiesmith
Saxon Academy
of Sciences in
Leipzig

THE 156th

Speakers

 Paul Castañeda Dower University of Wisconsin 43rd	 Dr. Antoine Parent Sorbonne Université 90th	 Uwe Junghanns University of Göttingen 119th	 Gero Vogl University of Vienna 124th	 Dr. Jean-Philippe Platteau University of Namur 126-150th
 Dr. Ulrich Tallarek Philipps-Universität Marburg 126-150th	 Dr. Felix Hagemeyer Leipzig University 126-150th	 Jörg Kürger Leipzig University 126-150th	 Andreas Paul Fröba Universität Erlangen- Nürnberg 196th	 Dr. Ran Nathan Hebrew University of Jerusalem 251-300th
 Dr. Monika Zin Saxon Academy of Sciences 346th	 Dr. Albrecht Fritzsche Rabat Business School 401-600th	 Dr. Paul Heitjans Leibniz University Hannover 401-500th	 Dr. Aren M. Maeir Bar Ilan University 601-800th	 Qu Chen Zhejiang University of Science and Technology

Organizers

New
Uzbekistan
University

Sächsische Akademie
der Wissenschaften zu Leipzig

GREATER EURASIA
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Sponsors



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PROGRAM

Day 1

September 6, 2023

08:30-09:00 Registration

09:00-09:05 **Odil Abdurakhmanov**
Advisor to the President on Youth, Science,
Education, Health, Culture and Sports

09:05-09:10 **Honorable Khilola Umarova**
Minister of Preschool and School Education

09:10-09:15 **Shlomo Weber**
New Uzbekistan University & Co-Director, GEAR (HKUST)

09:15-09:20 **Hans Wiesmeth**
President, the Saxon Academy of Sciences

Session 1

09:20-10:05 **Larry Blume**
Cornell University
Diffusion of information
in social networks

10:05-10:50 **Steven Durlauf**
University of Chicago
Diffusion of socioeconomic influences
across generations

10:50-11:10 Coffee Break

Session 2

11:10-11:55 **Shlomo Weber**
New Uzbekistan University & GEAR
Diffusion and Acquisition
of Languages

11:55-12:40 **Aren M. Maeir**
Bar Ilan University
Movement of Artifacts, People,
and Ideas in Antiquity

12:40-13:40 Lunch

Session 3

13:45-14:30 **Monika Zin**
Saxon Academy of Sciences
Routes of Trade and More: about the
Diffusion of Western Art and Indian Tales

14:30-15:15 **Hans Wiesmeth**
Saxon Academy of Sciences in Leipzig
Circular
Economy

15:15-15:30 Coffee Break

15:30-16:15 **Paul Castañeda Dower**
University of Wisconsin
Control through Empowerment: Evidence from
Nation-Building in Soviet Central Asia

16:15-17:00 **Antoine Parent**
University of Paris 8
The diffusion of the Great Fear, France 1789.
A view from cliometrics and complexity

17:00-17:45 **Ran Nathan**
Hebrew University of Jerusalem
Elucidating the Mean Drivers that Shape
Movements of Plants and Animals in the Wild

18:00 Conference Dinner at NewUU

Day 2

September 7, 2023

Session 1

09:00-09:45 **Andreas Paul Fröba**
Universität Erlangen-Nürnberg
Photon Correlation Spectroscopy to
Characterize Diffusion

09:45-10:30 **Marc-Olivier Coppens**
University College London
Nature-Inspired Transport
Optimization

10:30-11:15 Coffee Break

11:15-12:00 **Albrecht Fritzsche**
Rabat Business School
Basic Topological Structures for the
Diffusion of Innovations

12:00-12:45 **Boris Goldengorin**
New Uzbekistan University

12:45-14:00 Lunch

Session 2

14:00-14:45 **Ulrich Tallarek**
Philipps-Universität Marburg

14:45-15:30 **Servar Abdullaev**
New Uzbekistan University

15:30-15:45 Coffee break

15:45-16:30 **Felix Hagemeyer**
Leipzig University

16:30 -17:15 **Jean-Philippe Platteau**
University of Namur

17:15-18:00 Poster presentations

Diffusion of humans out of Africa and the phonemic
diversity cline by Joaquim Pérez-Losada

Confinement effects on distribution and transport
of neutral solutes in a small hydrophobic nanopore
by Nicole Trebel

Pseudo-Boolean Polynomials in
Data Aggregation and their Application

Multiscale Simulation of Sorption
and Diffusion in Porous Media

Selfish Routing and The
Price of Anarchy

Interactions and Exchange Processes as Driving
Forces of Social Development in Ancient Palestine

Institutional innovations: their origins and
diffusion mechanisms

Molecular dynamics simulation on self-diffusion
coefficients of CO2 in substituted amines by Qu Chen

Diffusion and adsorption of 2-methylpentane and
3-methylpentane in silicalite-1 crystals by Patricia
Siedel
Poster presentations by Boris Straumal

Day 3

September 8, 2023

Session 1

09:00-10:30 **Uwe Junghanns**
University of Göttingen

Gero Vogl
University of Göttingen
Diffusion of and in Language

10:30-11:30 **Jörg Kärger**
Leipzig University
Diffusion in Nanoporous
Materials

11:30-11:50 Coffee break

11:50-12:35 **Paul Heitjans**
Leibniz University Hannover
Better Battery Electrolytes by
Optimizing Ion Transport

12:35-13:20 **Hans Wiesmeth**
Saxon Academy of Sciences

Gero Vogl
University of Vienna
Diffusion Fundamentals: Past,
Presence and Future

Jörg Kärger
Leipzig University

Closing Ceremony

13:20-13:35 Venue: Conference Hall

Closing speech by

Yuldashev Bakhtiyor,
Vice-rector of the New Uzbekistan University
Shlomo Weber,
NewUU and GEAR

Appreciation and awards:
Awarding three professors with medals "Honorary Professor" (New Uzbekistan University);
Gifts to active participants

13:35-14:30 Lunch

14:30-19:00 Tashkent City Tour