



DVR 0065528

# Workshop

### September 26 - 30, 2022

### of the Thematic Programme on

## "Large Deviations, Extremes and Anomalous Transport in Non-equilibrium Systems"

September 19 - October 14, 2022

organized by

Christoph Dellago (U Vienna), Satya Majumdar (U Paris Sud, Orsay), David Mukamel (Weizmann Institute, Rehovot), Harald Posch (U Vienna), Gregory Schehr (U Paris Sud, Orsay)

• Monday, September 26th, 2022

09:00 - 09:45 **Registration** 

09:45 – 10:30 Clemens Bechinger (U of Konstanz) Colloidal particles in non-Markovian fluids far from equilibrium

10:30 - 11:00 Coffee Break

11:00 – 11:45 **Robert Jack (U Cambridge)** Large deviations of time-integrated quantities in active (and passive) matter

11:45 – 12:30 Christian Maes (KU Leuven) Nonequilibrium calorimetry

12:30 – 14:00 Lunch Break

14:00 – 14:45 **Urna Basu (SNBNCBS, Kolkata)** Activity driven transport in harmonic chains

14:45 – 15:30 **Pierre Le Doussal (ENS Paris)** *large deviations for diffusion in random media: crossover from the macroscopic fluctuation theory to the KPZ equation* 

15:30 – 16:00 **Coffee break** 

• Tuesday, September 27th, 2022

09:00 – 09:45 **Olivier Benichou (Sorbonne U, Paris)** Generalized Density Profiles in Single-File Systems

09:45 – 10:30 **Jae Dong Noh (U of Seoul)** Ordering of diffusing spins

10:30 – 11:00 **Coffee break** 

11:00 – 11:45 Eli Barkai (Bar Ilan U) Packets of diffusing particles exhibit universal exponential tails

11:45 – 12:30 **Oren Raz (Weizmann Institute, Rehovot)** Fluctuations in the Fourier coefficient of the current in periodically driven systems

 $12{:}30-14{:}00 \text{ Lunch break}$ 

14:00 – 14:45 Marija Vucelja (U Virginia) Anomalous thermal relaxation for over-damped Langevin dynamics

14:45 – 15:30 **Stefan Thurner (Med U Vienna)** On the origin of fat tailed distribution functions in driven complex systems

 $15:30-16:00 \ \textbf{Coffee break}$ 

#### • Wednesday, September 28th, 2022

09:00 – 09:45 **Sergio Ciliberto (CNRS, Paris)** Several applications of Engineered Swift Equilibration

09:45 – 10:30 **Udo Seifert (U Stuttgart)** *From stochastic thermodynamics to thermodynamic inference* 

10:30 - 11:00 Coffee break

11:00 – 11:45 **David Limmer (UC, Berkeley)** *A large deviation perspective on nanoscale transport phenomena* 

11:45 – 12:30 **Juan Garrahan (U of Nottingham)** *Tensor network methods and large deviations* 

12:30 - 14:00 Lunch break

#### • Thursday, September 29th, 2022

09:00 – 09:45 **Abhishek Dhar (TIFR, Bangalore)** Entropy growth during free expansion of an ideal gas

09:45 – 10:30 Jorge Kurchan (ENS Paris) Quantum bounds and Fluctuation-Dissipation Relation

10:30 – 11:00 **Coffee break** 

11:00 – 11:45 Ariel Amir (Harvard U, Cambridge) Statistical physics of microbial growth: fluctuations, phase transitions and large deviations

11:45 – 12:30 Mustansir Barma (TIFR Hyderabad) Coarsening, condensates and extremes in aggregation-fragmentation models

12:30 – 14:00 Lunch break

14:00 – 14:45 **Stefano Lepri (ISC)** *Anomalous transport in nonlinear lattices: quasi-integrability and long-range interactions* 

14:45 – 15:30 Andrea Gambassi (SISSA, Trieste) A surprising centenarian: the Ising model and its (quantum) interface dynamics

15:30 - 16:00 Coffee break

#### • Friday, September 30th, 2022

09:00 – 09:45 **Yariv Kafri (Technion Haifa)** *The long-ranged influence of disorder on active systems* 

09:45 – 10:30 **Shlomi Reuveni (Tel Aviv U)** Inspection Paradox Approach to Stochastic Resetting

 $10:30-11:00 \ \textbf{Coffee break}$ 

11:00 – 11:45 **Paul Krapivsky (U of Boston)** Large Deviations in Random Sequential Packing and Covering

11:45 – 12:30 Martin Evans (U Edinburgh) Stochastic Resetting: Overview and Recent Developments

12:30 – 14:00 Lunch break

#### All talks take place at ESI Boltzmann Lecture Hall! Wearing an FFP2 mask is mandatory!