Transport Phenomena in Complex Environments 2019

Programme

Arrival & Registration- Monday, September 2nd

Day One - Tuesday, September 3th

Session Chair: **Miguel Rubi**

8:45am – 9:00am: Welcome, **Fabio Marchesoni**, **Hartmut Löwen**

9:00am – 9:50am: **Gerhard Gompper**, "Large active polymers and membranes"

9:50am – 10:40am: **Muhammad Sahimi**, "Reconstruction of heterogeneous media by a cross-correlation function and graph theory"

10:40am – 11:10am: **Coffee Break**

Session Chair: **Sudhir Jain**

11:10am – 12:00am: **Clemens Bechinger**, "Group formation and cohesion of active particles with visual perception-dependent motility''

12:00am – 12:20am: **Antoine Berut**, "Creep behavior in piles of dense colloids confined by gravity"

12:20am – 12:40am: **Alice Thorneywork**, "First-passage time distributions reveal underlying free energy landscapes"

12:40am – 2:30pm: **Lunch**

Session Chair: **Rui Jiang**

2:30pm – 3:20pm: **Pietro Tierno**, "Clogging and jamming of colloidal monolayers driven across a disordered landscape"

3:20pm – 4:10pm: **Anatoly Kolomeisky**, "Collective dynamics of interacting molecular motors"

4:10pm – 4:40pm: **Coffee Break**

Session Chair: **Peter Hänggi**

4:40pm – 5:00pm: **Fanlong Meng**, "Dynamics of driven magnetic colloid in presence of a wall"

5:00pm – 5:20pm: **Mihail Popescu,** "Enzyme micropumps: motion of tracer particles reveals multifaceted aspects of the chemical activity of the enzyme patch"

5:20pm – 5:40pm: **Adrian Baule**, "Loopy Lévy flights enhance tracer diffusion in active suspensions"

5:40pm – 6:00am: **Mehmet Ucar**, "Collective force generation by molecular motors inferred from single-molecule properties"

6:00pm – 6:20am: **Mahmoud Sebtosheikh**, "Effective Interactions between permeable colloidal disks in an active bath"

Day Two - Wednesday, September 4th

Session Chair: **Gerhard Gompper**

9:00am – 9:50am: **Peter Hänggi**, "Anomalous heat diffusion"

9:50am – 10:40am: **Miguel Rubi,** " Entropy production and rectification efficiency in colloid transport along a pulsating channel"

10:40am – 11:10am: **Coffee Break**

Session Chair: **Muhammad Sahimi**

11:10am – 12:00am: **Stefan Egelhaaf**, "Diffusion of colloidal particles in stationary and moving inhomogeneous environment"

12:00am – 12:20am: **Artem Ryabov**, "Non-equilibrium phases and tagged-particle kinetics in driven diffusion of hard sphere"

12:20am – 12:40am: **Yunyun Li**, "Non-Gaussian Normal Diffusion in a Fluctuating Corrugated Channel"

12:40am – 2:30pm: **Lunch**

Session Chair: **Peter Wagner**

2:30pm – 3:20pm: **Roel Dullens**, "Transport of driven colloids in optical landscapes"

3:20pm – 4:10pm: **M. Reza Ejtehadi**, "Cell response to substrate topography"

4:10pm – 4:40pm: **Coffee Break**

Session Chair: **Anatoly Kolomeisky**

4:40pm – 5:00pm: **Jakub Spiechowicz**, "Tunable mass separation via negative mobility"

5:00pm – 5:20pm: **David Cubero**, "Sub-Fourier sensitivity in ac driven quantum systems"

5:20pm – 5:40pm: **Suvenda Mandal**, "Persistent anti-correlations in Brownian dynamics simulations of dense colloidal suspensions"

5:40pm – 6:00pm: **Shiteng Zheng**, "The growth pattern of traffic oscillations: A comparison study between China and USA"

6:00pm – 7:30pm: **poster session**

7:30pm – 9:30pm: **conference dinner**

Day Three - Thursday, September 5th

Session Chair: **Roel Dullens**

9:00am – 09:50am: **Peter Wagner**, "V2X-based signal control – recent results from a field experiment"

09:50am – 10:40am: **Rui Jiang,** "Experimental study and modeling of bicycle flow"

10:40am – 11:00am: **Jonas Rzezonka**, "Pedestrian dynamics at bottlenecks"

11:00am – 11:30am: **Coffee Break**

Session Chair: **Clemens Bechinger**

11:30am – 12:20pm: **Ramin Golestanian** (presented by Jaime Agudo), "Active phase separation in mixtures of chemically-interacting particles"

12:20pm – 12:40pm: **Christian Rohwer**, "Non-equilibrium correlations and forces in sheared fluids with or without quenching"

12:40pm – 13:00pm: **Zeno Filiberti**, "A statistical approach to thermo-osmosis"

13:00am – 2:00pm: **Lunch**

2:00pm – 10:00pm: **Excursion**

Departure - Friday, September 6th