

NANO*TRANS*

Transport of Soft Matter at the Nanoscale

NANOTRANS Berlin Meeting Feb. 27 - Mar. 3, 2017

Freie Universität Berlin, Fachbereich Physik

Arnimallee 14, D-14195, Berlin, Germany

Hörsaal A (lecture hall A)

Content of this document:

- NANOTRANS annual meeting (Feb. 27-28)
- Training session (Mar. 1-3)
- Practical information
- List of participants

NANOTRANS Annual Meeting

Monday February 27

- 9:00 Welcome address & practical information (Roland Netz, FU Berlin)
- 9:15 Overview of ETN NANOTRANS for ESRs (Jure Dobnikar, Cambridge)
- 9:30 Discussion of network related issues (Benjamin Rotenberg, Paris)
- Consortium agreement
 - New associate members: Anand Yethiraj (MUN) and Ming Li (IoP-CAS)
 - Advisory board
 - Data management
 - Career plan for ESRs
 - Deliverables (to upload on time)
- 10:15 Coffee break
- 10:30 Discussion of network related issues
- Website: content update and members area
 - Next events: Mainz summer school and mid-term meeting in Paris
 - Other topics: secondments, ...
- 11:00 Interface spectroscopy from ab initio molecular dynamics simulations (Marialore Sulpizi, Mainz)
- 11:45 Heterogeneously charged colloids: from modeling to self-organization (Emanuela Bianchi, Vienna)
- 12:30 Lunch Break
- 14:00 Dynamics of ionic condensation (I. Palaia and E. Trizac, Paris)
- 14:45 Modeling of charged nanoparticles in suspension (Marie Jardat, Paris)
- 15:30 Controlling translocation through nano- and microfluidic channels (Ulrich Keyser, Cambridge)
- 16:15 Coffee Break
- 16:30 Control of protein motion through diffusiophoresis in microfluidic channels (Quentin Peter, Cambridge)
"Microfluidic approaches in protein biophysics"
(Tuomas Knowles, Cambridge)
- 17:15 Non-equilibrium self-assembly in cement hydration (Jure Dobnikar, Cambridge)
- 18:00 End

Tuesday February 28

- 9:00 Transport of suspensions of polymers and active particles in nanochannels
(Roland Winkler, Jülich)
- 9:45 Fluids in confinement: transport, friction and fluctuations
(Lyderic Bocquet, Paris)
- 10:30 Coffee Break
- 11:00 Novel techniques for electrokinetic measurements in colloidal suspensions
(David Jacob, CORDOUAN TECHNOLOGIES)
- 11:45 An experiment to measure the dynamics of ionic liquid confined to nanofilms
between two graphene sheets (Susan Perkin, Oxford)
- 12:30 Lunch Break
- 14:00 Environmentally induced transport in passive and active fluids
(Ignacio Pagonabarraga, Barcelona)
- 14:45 Molecular Simulation of Diffusio-osmotic slip
(Simon Ramirez-Hinestrosa, Cambridge)
- 15:30 Revisiting confinement-induced attraction between like-charged entities
(Sven Deutschländer, Zurich)
- 16:15 Coffee Break
- 16:30 Electrokinetics and Friction in Confinement
(Bernhard Mitterwallner, Alexander Schlaich, Yuki Uematsu, Douwe Bonthuis,
Roland Netz, FU Berlin)
- 17:15 Computing memory functions from molecular simulations
(Benjamin Rotenberg, Paris)
- 18:00 End

20:00 Conference Dinner, Restaurant Jungbluth

NANOTRANS Training session

Training module:

T4 Electrostatic interactions in soft matter & electrokinetic phenomena

Transferable skills:

S2 Innovative Proposals & Products
S3 European funding - opportunities and practical aspects
S6 Scientific Writing

Wednesday March 1

9:30 Overview surface forces: dispersion, hydration, charge interactions (T4)
Rudi Podgornik, Institut Jožef Stefan, Ljubljana, Slovenia

11:00 Coffee break

11:15 Experimental measurements of surface forces, electrolytes in confinement (T4)
Susan Perkin, Oxford University, United Kingdom

12:45 Lunch Break

14:00 Ion specific effects, hydration effects (T4)
Roland Netz, Freie Universität Berlin, Germany

15:30 Coffee break

15:45 Electrical charge in macromolecules and how to measure it (T4)
Madhavi Krishnan, University of Zürich, Switzerland

17:15 End

Thursday March 2

9:30 Electrostatics, from mean-field to correlation effects (T4)
Emmanuel Trizac, Université Paris Sud, France

11:00 Coffee break

11:15 Multiscale approaches to solid-water interfaces (T4)
Marialore Sulpizi, Johannes Gutenberg Universität, Mainz, Germany

12:45 Lunch Break

14:00 Scientific eBooks and eJournals – pleasures and woes of the digital age (S6)
Maria Bellantone (Springer)
Talk to the editor (S6) *Roland Netz, Lydéric Bocquet*

15:30 Coffee break

15:45 Workshop on Scientific Writing (S6)
Susan Perkin, Oxford University, United Kingdom

17:15 End

18:30 Brewing workshop "Stone Brewing Berlin" <http://www.stonebrewing.eu>
19:30 School Dinner at Stone Brewing

Friday March 3

9:30 Electrokinetic theory: dielectric & viscosity interfacial effects (T4)
Douwe Bonthuis, Freie Universität Berlin, Germany

11:00 Coffee Break

11:15 Electrokinetics on the Nanoscale (T4)
Lydéric Bocquet, Ecole Normale Supérieure, Paris, France

12:45 Lunch Break

14:00 Overview over European funding possibilities for young researchers (S3)
Claudia Niggebrügge, research funding support service at Freie Universität Berlin

15:00 Innovative proposals & products (S2)
Benjamin Rotenberg, CNRS and UPMC, Paris, France
Jure Dobnikar, University of Cambridge, United Kingdom

16:00 End