



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Ostwald-Colloquium:
Interface mediated processes in soft matter
13.-15. September 2023, TU Darmstadt



Venue: Building S1|03 Room 283 (Wilhelm-Köhler-Saal)

Wednesday 13.09.2023	
12:45	Registration, Attach posters A
13:20	Introductory remarks
13:30	Invited talk (I1) Julian Oberdisse (Montpellier) “Filler structure and interfacial layer dynamics of polymer nanocomposites”
	Daniel Kilinger (Berlin) (C1) “Regioselective Seeded Polymerization in Block Copolymer Nanoparticles: Controlling Shape, Morphology, and Chemical Functionality”
14:10	
14:30	Manuel Trömer (Münster) (C2) “Ternary Phase Diagram of SBM-triblock Terpolymer in Controlled Confinement”
	Christine Papadakis (Munich) (C3) “Highly Tunable Nanostructures in a Doubly pH-Responsive Pentablock Terpolymer in Thin Film Geometry”
14:50	
15:10	George Floudas (Mainz-Ioannina) (C4) “Polymer dynamics during flow in nanopores”
15:30	<i>Coffee Break, Attach Posters A</i>
16:00	Invited talk (I2) Cosima Stubenrauch (Stuttgart) “Innovative Foam-Based Cleaning Concepts for Historical Objects”
	Lukas Zeininger (Potsdam) (C5) “Multiresponsive complex droplets as active force gradient sensors”
16:40	
17:00	Invited talk (I3) Valérie Ravaine (Bordeaux) “Responsive microgels as Pickering emulsifiers for water-in-water emulsions”
	Timon Kratzenberg (Aachen) (C6) “Colloidal probe study of microgels at the solid-liquid interface: From colloid-microgel interactions to emulsion-stabilization mechanisms”
17:40	

18:00 20:00	<i>Posters A and finger food</i>
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Thursday 14.09.2023

09:00	Invited talk (I4) Ofer Manor (Haifa) “On electro-mechanical ion dynamics and resonance in electrical double layers neighboring a surface acoustic wave”
09:40	Amin Rahimzadeh (Darmstadt) (C7) “Acousto-responsive Microgels at a Water-Oil Interface”
10:00	Thomas Hellweg (Bielefeld) (C8) “Microgel Based Switchable Membranes for Modulation of Ion Flow”
10:20	<i>Coffee break, Attach Posters B</i>
10:40	Invited talk (I5) Wolfgang Peukert (Erlangen) “Chromatographic fractionation and characterizing of functional colloids”
11:20	Invited talk (I6) Karl Mandel (Erlangen) “The role of intra-supraparticle interfaces for functionality”
12:00	Invited talk (I7) Doris Segets (Duisburg-Essen) “The role of interfaces during the processing of colloids: How we characterize them and how we use them for energy applications”
12:40	<i>Lunch + Posters B</i>
14:40	Invited talk (I8) Nicolas Vogel (Erlangen) “Colloidal clusters from confined self-assembly”
15:20	Invited talk (I9) Matthias Karg (Düsseldorf) “Microgel monolayers at liquid interfaces: In situ analysis and role of uniaxial compression”

16:00	Johannes Menath (Erlangen) (C9) “Acoustic Crystallization of 2D Colloidal Crystals”
16:20	<i>Coffee break</i>
16:40	Invited talk (I10) Andreas Fery (Dresden) “Making Materials Communicative”
17:20	Swagato Sarkar (Dresden) (C10) “Colloidal metasurfaces for emergent nanophotonic applications”
17:40	Stefano Onofri (Enschede) (C11) “Numerical simulations of liquid bridges between colloids”
18:00	Marcus Witt (Mainz) (C12) “Writing in Water”
20:00	<i>Conference Dinner (Shiraz)</i>

Friday 15.09.2023	
09:00	Invited talk (I11) Uwe Thiele (Münster) “Drops of volatile liquids on adaptive substrates - advances in thin-film modelling”
09:40	Christopher Henkel (Münster) (C13) “Gradient Dynamics Model for Drops on Elastic Substrates”
10:00	Boxin Deng (Wageningen) (C14) “Bubble formation and stability at (sub)millisecond time scales”
10:20	Reinhard Miller (Darmstadt) (C15) “Adsorption of Surfactants at the Water/Air, Water/Alkane Vapor and Water/Liquid Alkane Interfaces”
10:40	Matej Kanduc (Ljubljana) (C16) “Surmounting time scale challenges: Thermodynamic framework for surfactant behavior prediction with MD simulations”
11:00	<i>Coffee break</i>
11:20	Felix Plamper (Freiberg) (C17) “Deposition of Polyelectrolytes at Electrodes”

11:40	H. Samet Varol (Darmstadt-Bologna) (C18) “Electropolymerization of polydopamine in nanoconfinement”
12:00	Lukas Stelzl (Mainz) (C19) “Resolving how phase-separated condensates underpin specific biochemical regulation with multi-scale simulations”
12:20	Invited talk (I12) Emanuel Schneck (Darmstadt) “The rich phenomenology of lipid membranes containing glycolipids: Insights from scattering techniques and computer simulations”
13:00	Final Remarks

Poster Session A (Wednesday 13.09.2023)	
A1	Alexander Erb (Darmstadt) “Visualization and Quantification of Local Concentration Gradients in Evaporating Water/Glycerol Sessile Droplets”
A2	Saule Aidarova (Almaty) “Enhancement CO2 foaming by surfactant/nanoparticles mixture”
A3	Saule Aidarova (Almaty) “Dynamical surface tension of surfactants/nanoparticles”
A4	Marcel Rey (Erlangen-Edinburgh-Gothenburg) “Versatile strategy for homogeneous drying of dispersed particles”
A5	Alexander S. Münch (Dresden) “Multi-functional polymer coatings based on zwitterionic phosphorylcholine – surface science meets application”
A6	Atieh Razavi (Darmstadt) “Controlling bouncing of droplets by coating them with PNIPAM Microgels”
A7	Bhuvan Poudel (Mainz) “Effect of monomer-nanoparticle interaction on structural ordering of nanoparticles in a polymer brush”
A8	Billura Shakhayeva (Münster) “Electro(de)wetting with Photoswitches: Control of wetting by electric fields and light”

A9	Cassia Lux (Darmstadt) “Modeling functionalized papers using cellulose surfaces”
A10	Cihan Baydaroglu (Berlin) “Investigation of Model Hydrogels of Increasing Complexity that Approach the Structural Features of Mucins”
A11	Eugene V. Aksenenko (Kyiv) “Diffusion governed surfactant kinetics at fluid/fluid interfaces: a model-based approach”
A12	Hossein Eslami (Darmstadt) “Self-Assembly Pathways of Triblock Janus Particles into Three-Dimensional Open Lattices”
A13	Jan Diekmann (Münster) “Asymmetric Compound Drops”
A14	Joachim Venzmer (Evonik, Essen) “Superspreading – Solving a >30 year old mystery”
A15	Joanne Zimmer (Darmstadt) “Swelling behavior of PNIPAM microgels with varying charge and cross-linking density”
A16	Laura Despot (Darmstadt) “Molecular transport and water condensation inside mesopores with wettability step gradients”
A17	Leila Sahebmoammadi (Darmstadt) “Self-assembled Peptide Structure Mediated by Solid Interfaces”
A18	Lena Schmauser (Regensburg) “The impact of aqueous based solvents on the tandem reaction combining transition metal- and biocatalysis”
A19	Liu Tang (Berlin) “A sodium hyaluronate microneedle patch and conductive hydrogel integrated non-invasive transdermal drug delivery platform - for insulin passive response and electrically driven release”
A20	Yun Dong (Mainz) “Ion mobility of a polymerized ionic liquid under nanoconfinement”

Poster Session B (Thursday 14.09.2023)

B1	Jens Weber (Görlitz) “Hydrophobicity of Tunable PDMS-based Elastomers for High-Voltage Applications”
B2	Luise Wirth (Dresden) “Antibacterial properties of polyelectrolyte multilayer coatings functionalized with bacteriophages”
B3	Marek Bekir (Potsdam) “Light induced stopping of microparticles against a fluid flow”
B4	Martin Reifarth (Potsdam) “A polymer-assisted microcontact printing procedure for precise patterning of capillary-active substrates – a pathway to patchy particles”
B5	Michael Hardt (Münster) “Adaptive Air-Water interfaces with Spiropyran and Arylazopyrazole Photoswitches”
B6	Miriam Grava (Darmstadt) “Structure and electrostatic properties of transfection lipid layers adsorbing mRNA”
B7	Mohammad Abboud (Darmstadt) “Role of extensional rheology in the splash of nanofluid drops”
B8	Mohammadali Hormozi (Darmstadt) “Size-Dependent Wetting of Microscopic Low-vapor Pressure Droplets on Smooth Silane-Coated Substrate”
B9	Nazim Pallab (Potsdam) “Polymer-assisted Microcontact Printing for Precise Patterning of Rough Surfaces – Engineering the PDMS Stamp”
B10	Olaf Soltwedel (Darmstadt) “Bridging MD simulations with mutual scattering methods”
B11	Peter Vogel (Mainz) “Ambient and excess carbonization of dielectric surfaces in aqueous environments”
B12	Philipp Ritzert (Darmstadt) “Polymer Brush/Gold Nanoparticle Composite Materials: Structure Control via Ion-Specific Effects”

B13	Ruiguang Cu (Berlin) “Amphiphilic Nanogels as Versatile Stabilizers for Pickering Emulsions”
B14	Souraj Mandal (Darmstadt) “Microgels for Enhanced Adsorption of Endothelial Cells on Artificial Networks”
B15	Thomas Tilger (Darmstadt) “Screening Behavior of Nano-Ions in Aqueous Solutions”
B16	Thomas Zimmermann (Erlangen) “Sol-gel coatings for solar cover glass: Influence of surface structure on dust accumulation and removal”
B17	Venkata Manikantha Sai Ganesh Tanuku (Mainz) “Island Hopping of active colloids”
B18	Volodymyr I. Kovalchuk (Kyiv) “Interfacial Dilational Viscoelasticity of Adsorption Layers at the Hydrocarbon/Water Interface: The Fractional Maxwell Model”

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