Swiss Soft Days

31st edition

Fribourg 14.04.2023

Adolphe Merkle Institute, University of Fribourg

Chemin des Verdiers 4, 1700 Fribourg

Sponsored by Departement of physics

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UNIVERSITÉ DE FRIBOURG
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Local organizers: Véronique Trappe
Ahmet Demirörs

PROGRAM

09.30-09.55	**Registration / Coffee**	
9.55-10.00	Welcome	
10.00-10.45 *invited*	M. Tibbitt (ETHZ)	Macromolecular engineering of dynamic biomaterials
Chair:		
10.45-11.00	A.J. Giacomin (UniQueen)	Recent advances in polymer viscoelasticity from general rigid bead-rod theory
11.00-11.15	I. Onori (AMI)	Double polymer networks featuring covalent and non-covalent cross-links
11.15-11.30	C.E. Giacomin (ETHZ)	Environmental effects for fish mucus rheology
11.30-11.45	G. De Angelis (EPFL)	The rheological properties of viscoelastic membranes vs bulk hydrogels
11.45 – 12.15	Sound bites	Introduction to selected posters
12.15-13.30	**Lunch / Poster Session**	
13.30-14.15 *invited*	G. Foffi (UniParisSaclay)	What did I learn using super simple models in Soft Matter?
Chair:		
14.15-14.30	A.P. Singh (UniFribourg)	Intramolecular hydrogen bonding: A key factor in RNA binding to ordered phospholipid bilayer
14.30-14.45	Z.C. Meijs (ETHZ)	Physical unclonable functions by capillary-assisted particle assembly
14.45-15.00	B. Zhou (PSI)	Concentration dependence of counter-ion cloud configuration with increasing particle stiffness studied with SANS
15.00-15.30	**Coffee / Poster Session**	
15.45-16.00	Y.Yuan (ETHZ)	Plasmonic amyloid tactoids
16.00-16.15	M. Debas (UniFribourg)	Supramolecular design of CO_2-responsive lipid nanomaterials
16.15-16.30	X. Huang (UniBasel)	Cell-derived vesicles with improved properties and functionality by equipping their membrane with a cross-linkable copolymer
16.30-16.45	B.F.B. Silva (EMPA)	General assembly behavior of core-shell lipid-polycation-nucleic acid nanoparticles as revealed with fluorescence cross-correlation spectroscopy

	Sound bites for the introduction of selected posters
M. Wolf (ETHZ)	Photoreversible resins for the detachment of human temporal bone samples
B. Tran (UniFribourg)	Self-assembly of polycationic polymers with viruses for advanced biomaterials
Q. Sun (ETHZ)	Thermo-responsive liquid crystalline phases of cellulose nanocrystals with polymer brushes
S.C. Erunsal (UniKonya)	Impact of varying kind of antioxidants on light-induced printing of hydrogels
P. Pradal (EPFL)	3D printing of rigid photonic microparticles
V. Maffeis (UniBasel)	Catalytic nano-compartments for complex cascade reactions in biomedicine
S. Tarvirdipour (UniBasel)	Nuclear-targeted delivery of oligonucleotides exploiting peptide nano-assemblies
J. Prabhu (UniFribourg)	An *in silico* osmotic pressure approach allows to characterize pressure-area isotherms of lipid monolayers at low molecular areas

Number		Posters
1	P. Pradal (EPFL)	3D-printing of rigid photonic microparticles
2	M. Hirsch (EPFL)	4D-printing of metal-reinforced double network granular hydrogels
3	E. Baur (EPFL)	Granular elastomers for 3D printing applications
4	S.C. Erunsal (UniKonya)	Impact of varying kind of antioxidants on light-induced printing of hydrogels
5	M. Wolf (ETHZ)	Photoreversible resins for the detachment of human temporal bone samples
6	B. Tran (UniFribourg)	Self-assembly of polycationic polymers with viruses for advanced biomaterials
7	Q. Sun (ETHZ)	Thermo-responsive liquid crystalline phases of cellulose nanocrystals with polymer brushes
8	V. Maffeis (UniBasel)	Catalytic nano-compartments for complex cascade reactions in biomedicine
9	P. Kadakia (UniFribourg)	Design and characterization of pH-responsive lipid self-assemblies against bacteria
10	S. Tarvirdipour (UniBasel)	Nuclear-targeted delivery of oligonucleotides exploiting peptide nano-assemblies
11	R. Freire (UniFribourg)	Unraveling nanostructure formation during simulated digestion of functional emulsions by *in situ* synchrotron SAXS
12	C.-R. Li (EPFL)	Charge-selectively permeable microcapsules
13	O. Eggenberger (UniBasel)	Bottom-up cell mimicry: ATP synthesis in giant polymersomes formed by microfluidics
14	V.Mihali (UniBasel)	Clusters of hard-soft assembly for bio-applications
15	K. Manne (UniFribourg)	Synthesis and characterization of structurally colored silica foams via colloidal templating
16	M. Skowicki (UniBasel)	The use of fibroblast activation protein inhibitor as a targeting ligand for enhanced cellular uptake

17	J. Valentin (UniFribourg)	Antimicrobial cationic coating for rapid self-disinfecting surfaces
18	P. Ferdowsi (UniFribourg)	Investigating $MAPbBr_3$ Perovskite solar cells through interfacial passivation using ultrathin polymeric films
19	H. Wang (EPFL)	Investigation of single-walled carbon nanotubes enriched hydrogels for ascorbic acid sensing and release monitoring
20	J. Muñetón Díaz (UniFribourg)	From interaction potentials to rheological properties of microgel particles
21	H. Almohammadi (ETHZ)	Disentangling kinetics from thermodynamics in heterogeneous colloidal systems
22	J. Prabhu (UniFribourg)	An *in silico* osmotic pressure approach allows to characterize pressure-area isotherms of lipid monolayers at low molecular areas
23	M. Gora (EMPA)	Surfaces forces on nano-porous materials
24	L. Heuberger (UniBasel)	Microfluidic polymer GUVs – a versatile toolbox to study biological processes