

19th European Student Colloid Conference

24th - 27th June 2024 - Bordeaux, France

esconf2024.org



Scientific Program

The talks, poster session and Meet and Greet will take at ENSMAC
(16 Av. Pey Berland, 33600 Pessac)

Monday 24 June

Amphi 1

8:40-9:00

Welcome remarks

9:00-10:00



Plenary Talk: Marleen Kamperman

Bioinspired adhesives: a complex (coacervate) affair

Amphi 2

Chair: Magdalena Przeradzka

10:00-10:20

Frédéric Grabowski (DE) - Catalyzed Henry Reaction by Compartmentalized Copper-Pyrazolyl-Complex Modified Microgels

10:20-10:40

Adeline Delaporte (FR) - Innovative natural coacervates for the encapsulation of lipophilic compounds: the example of α -tocopherol

Amphi 3

Chair: Camille Courtine

Kevin Ballu (UK) - Directed Aggregation of Cellulose Nanocrystals: Impact on Morphology and Self-Assembly Behaviour

Lars Kuerten (FR) - Making the hard sphere nucleation discrepancy disappear

10:40-11:00

Coffee break



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11:00-11:20	Chair: Allan Salem-Tabet Guillaume Gimenez (FR) - Study of the interactions between simple coacervates and molecules for water depollution by self-coacervation	Chair: Auriane Bagur Christopher G Passmore (UK) - Advancing Colloidal Crystal Manufacturing
11:20-11:40	Nadja Wolter (DE) - Covalent Crosslinking Strategies – Utilizing the Self-Assembling Phe-Phe Peptide Motifs in Microgels	Weronika Zajac (PL) - Chameleon Photonic Crystals: acid-induced emission and absorption shifts for sensor applications
11:40-12:00	Sarrah MEZDARI (FR) - Hydrogels based on ionene polyelectrolytes: dynamics of matrix and charged guest species	Xin Yin (DE) - Programmable self-assembly of DNA Origami Diamond Cubic lattice

12:00-13:30

Lunch break (Passerelle)

Amphi 1

13:30-14:30



Plenary Talk: Pawel W. Majewski

Photothermal effects in directed self-assembly, shaping and actuation of functional soft materials

Amphi 2

Amphi 3

14:30-14:50

Chair: Frédéric Grabowski

Jyoti Gupta (ES) - Bio-based itaconate esterase as a tool to increase the bio-based content of acrylic emulsion polymers

Chair: Matthieu Soula

Alan Francisco Mejia (DE) - Bio-Inspired Design of Tunable Hybrid Colloids with Star and Surfactant-like Architectures

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14:50-15:10	Sara Beldarrain (ES) - Synthesis of Snowman particles by two-step semibatch emulsion polymerization	Simone Russo (IT) - Surface modification of colloidal fluorine-doped ZnO Quantum Dots with glycomolecules to engineer amphiphilic nanoformulations
15:10-15:30	Magdalena Przeradzka (FR) - Yield-stress fluids of thermo-responsive microgel suspensions	Hamid A Hassan (FR) - Dynamics of self-assembled anisotropic magnetic particles
15:30-16:00	Coffee break	
	Chair: Megan Parker	Chair: Elodie Layan
16:00-16:20	Chiara Ferlito (IT) - Influence of Halloysite from different deposits on organic molecules degradation	Silvia Argelia Peraza Ku (FR) - Studying the formation of non-conventional morphologies on PBLG nanoprecipitation
16:20-16:40	Tin Klačić (HR) - Improving the anti-corrosion properties of titanium materials by applying the poly(N-ethyl-4-vinylpyridine) coating	Sumi Murali (ES) - Surfactant free emulsion polymerization using different sulfobetaine-zwitterionic monomers
16:40-17:00	Nadia Batool (FR) - 3D-printed gas diffusion electrodes from colloidal nano-inks	Allan Salem-Tabet (FR) - Drying of silicone oil emulsions on absorbent substrates

Cheminov room

17 :00-19 :00

Poster session and Meet & Greet



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Tuesday 25 June

Amphi 1

9:00-10:00



Plenary Talk: Agustin Mihi

Crafting Light with Nanophotonic Architectures made by Soft Nanoimprinting Lithography

Amphi 2

Amphi 3

Chair: Matheus Mendes

Chair: Gabrielle Lacroix

10:00-10:20

Jaime Gabriel Trazo (FR) - Tunable Lattice Parameters and Symmetry in Plasmonic Metasurfaces

Sribaharani Sekar (FR) - Short-time formation kinetics of OUZO droplets as possible scaffolds for the assembly of nanoparticles into submicron shells. Towards optical resonators

10:20-10:40

Qingyuan Song (DE) - Gold Nanostar-satellite Nanoprobes for Surface Enhanced Raman Spectroscopy

Mohammad Mahdi Assaf (FR) - Foaming properties of aqueous solutions of natural plant proteins in relation with their interfacial rheological properties at the air/water interface

10:40-11:00

Coffee break

Chair: Laura van Hazendonk

Chair: Guillaume Gimenez

11:00-11:20

Matheus Mendes (FR) - Template-assisted chirality induction to magnetic nanoparticles using silica nanohelices. Towards new magneto chiral responsive nanocomposites.

Zi Lin (FR) - Dynamic behavior of light-responsive coacervates in microfluidics droplets

11:20-11:40

Xiaoyu Qi (ES) - Template-assisted assembly of metal colloids for tunable chiral plasmonic lattices

Carolina Dari (FR) - Lamellar gel network stabilizing water-in-water emulsions

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11:40-12:00

Margaux Gaillard (FR) - Self-Assembly-Driven Biosensors: DNA-Guided Gold Nanoparticles for Information coding

Mónika Bak (HU) - Structuring liquids through solvent-assisted interfacial association of oppositely charged polyelectrolytes and amphiphiles

12:00-13:30

Lunch break (Passerelle)

Amphi 1

13:30-14:30



Plenary Talk: Katherine Elvira

Building customisable artificial cells on a chip for drug discovery and other applications

Amphi 2

Chair: Zi Lin

Amphi 3

Chair: Ramanujam Ramanujam

14:30-14:50

Giulia Gabbricci (IT) - Microfluidic synthesis of Solid Lipid Nanoparticles and Nanostructured Lipid Carriers for enhanced dermal delivery: characterization, optimization, and structural comparative analysis

Sofia Rogers Ruiz (UK) - Surface modification of cotton for sustainable antimicrobial cellulose-based products

14:50-15:10

Anyi Roperro Barrera (UK) - Nanostructure of polymer-surfactant complex films with long-lasting antimicrobial efficacy

Antoine Castagnède (FR) - Fast event-driven simulations for soft spheres: from dynamics to Laves phase nucleation

15:10-15:30

Iliaria De Cristofaro (IT) - Lipid nanocarriers for inhalation therapy: design and physicochemical characterization

Matteo Farci (IT) - Modeling the Impact of Steric Forces and Charge Regulation in Cyclic Voltammetry Curves

15:30-16:00

Coffee break

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Chair: Ilyes Jalisse

- 16:00-16:20 **Loic Jouan** (FR) - Massive production of micrometer-sized emulsion droplets with microfluidics
- 16:20-16:40 **Sebastian Höhne** (DE) - Influence of process and formulation parameters on powder characteristics of spray dried, oily powders and their influence on powder flowability
- 16:40-17:00 **Usue Aspiazu Iturbe** (ES) - OptoFluidic Force Induction (OF2i) to Monitor the Particle Size in Emulsion Polymerization Reactions
- 17:00-17:20 **Theo Duarte** (FR) - Advanced study of photoluminescent carbon quantum dots photophysical behavior

Chair: Xin Yin

- Laura Hazendonk, van** (NL) - Morphological analysis of polydisperse nanoplatelets using SAXS
- Antoine Simon** (FR) - Advanced Control Mechanisms in True Catanionic Surfactant Systems: Tri-Component Strategies and Charge Dynamics
- Mariafrancesca Coccimiglio** (IT) - Photo-active carbon nanoparticles colloidal solutions from coffee-waste: a dive in the chemical environment interaction of a multicomponent system
- Matthieu Soula** (FR) - Self-assembly of triplex forming DNA coated Colloidal microparticles

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Wednesday 26 June

Amphi 1

9:00-10:00



Plenary Talk: Debora Berti

Exploring Nanoparticle-Lipid Hybrid Systems: from Fundamental Insights to Biomedical Applications

Amphi 2

Amphi 3

Chair: Sribaharani Sekar

Chair: Matheus Mendes

10:00-10:20

Danni Luo (AU) - Improving flotation of fine valuable lithium minerals through the formation of small hydrophobic aggregates

Matthew Terkel (ES) - Branching transition of driven magnetic colloids through a microfluidic Y-junction

10:20-10:40

Francesca Porpora (IT) - Proposal for a remediation method for the "vinegar syndrome" in cellulose acetate-based motion picture films

Auriane Bagur (FR) - Programmable self-assembly of DNA-coated patchy nanoparticles into colloidal polymers

10:40-11:00

Coffee break

Chair: Regina Medeiros

Chair: Antoine Brézault

11:00-11:20

Helena Bach-Rojecky (HR) - Enhancing hydrophobicity through radiation crosslinking of stearic acid monolayers on calcium carbonate

Mouktar Nour Mahamoud (FR) - Emulsion processing of gold nanoparticle shells: towards plasmonic nanoresonators

11:20-11:40

Aleksandar Sladojevic (ES) - Exploring Oxygen's Effects on Styrene Free Radical Polymerization: A Revised Study

Yinong Feng (BE) - Starch-Lauric Acid Complexes Retard Gastrointestinal Release and Absorption of Lipids in Diacylglycerol Structured Emulsions

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11:40-12:00 **Camille Courtine (FR)** - Water in silicone emulsions towards super soft, biomimetic materials **Marion Le Guevel (FR)** - Oil removal by flowing of surfactant solution: a two scale approach

12:00-13:30 Lunch break (Passerelle)

Amphi 1

13:30-14:30



Plenary Talk: Frank Smalenburg

Predicting self-assembly in colloidal systems: the case of hard-sphere

Amphi 2

Chair: Auriane Bagur

14:30-14:50 **Stefano Onofri (NL)** - Numerical simulations of liquid bridges between colloids

14:50-15:10 **Natalie Blot (FR)** - Limits to Design in Colloidal Self Assembly

15:10-15:30

Jenni Koskinen Engstedt (SE) - Investigating the swelling behavior of Soybean Phosphatidylcholine and Glycerol Dioleate mixtures

Antoine Brézault (FR) - Multi-responsive Supramolecular Core-shell PNIPAM microgels

Ralitsa Uzunova (BG) - Adsorption properties of volatile amphiphiles at solution/vapor interfaces

15:30-16:00

Coffee break



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	Chair: Antoine Brézault	Chair: Kévin Ballu
16:00-16:20	Joanne Zimmer (DE) - PNIPAM microgel-stabilized aqueous Pickering foams	Yupei Ma (FR) - Self-Assembled Peptides: Towards Biomimetic Piezoelectric Materials
16:20-16:40	Elodie Layan (FR) - Light trapping within 3D macrocellular ceramics towards environmental remediation	Nur Syazaliyana Azali (UK) - Active-Passive Colloid Crystallization
16:40-17:00	Yuri Fernandes (AU) - Novel high internal phase emulsion binders stabilized by amphiphilic RAFT polymers for minerals beneficiation	Megan Parker (FR) - Redox chemistry in solution toward large silicon particles
20:00-23 :00	Gala Diner @ Café du Port	



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Thursday 27 June

Amphi 1

9:00-10:00



Plenary Talk: Jan Vermant

Efficient processing pathways for sustainable high interface materials

Amphi 2

Chair: Matthieu Soula

10:00-10:20

Regina Medeiros (AU) - Improving the collection of fine valuable minerals via aggregation using polyacrylamide polymers

10:20-10:40

Rahma Boughanmi (DE) - Preparation of Bio-Hot Melt Adhesives using Biopolymers

Amphi 3

Chair: Elodie Layan

Jordan Bassetti (FR) - Formulation and rheological characterization of Pickering emulsions of organic nuclear waste prior to their immobilization

Gabrielle Lacroix (FR) - Formulation of biomimetic silicones for 3D printing of kidney models

10:40-11:00

Coffee break

Chair: Sribaharani Sekar

11:00-11:20

Andriani Tsompou (SE) - A structural investigation on the interactions of cotton fabric with olive oil and water

11:20-11:40

Tatiana Slavova (BG) - Saturated Micellar Networks: Phase Separation and Nanoemulsification Capacity

Chair: Megan Parker

Ilyes Jalisse (FR) - Interferometric surface stress sensor

Leila Issoufou Alfari (FR) - Stress imaging at the nanoscale using fluorescent nanocrystals

11:40-13:30

Closing remarks and Lunch break (Passerelle)



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Poster session

P1 - **Alexia ARAUJO** (FR) - Asymmetric patchy particles from combined colloidal and block copolymer assembly

P2 - **Giorgia Ballabio** (IT) - Value-added bio-based emulsifiers from dairy waste valorization

P3 - **Francisco César Bevilacqua** (ES) - Growing larger gold bipyramids from pentatwinned nanorods

P4 - **Feipeng Chen** (HK) - Size scaling of membrane-less compartments by phase separation

P5 - **Priyanka Chohan** (UK) - Effect of Temperature, Oil Type and Copolymer Concentration on the Long-Term Stability of Oil-in-Water Pickering Nanoemulsions Prepared Using Diblock Copolymer Nanoparticles

P6 - **Sara Costantini** (IT) - Chlorogenic acid in zwitterionic liposomes: microfluidic optimization, synthesis and physicochemical characterization

P7 - **Pamela De La Fuente** (FR) - Chiral plasmonic nanostructures as enantioselective photocatalysts

P8 - **Zirui Fan** (FR) - A novel pathway for colloidal patchy particles

P9 - **Utku Gürel** (NL) - Phase Re-entrance of Soft-Charged Colloids

P10 - **Rafael Jimenez** (FR) - Light-responsive mononucleotide coacervates as a step towards membrane-free protocells

P11 - **Emmanuel Joseph** (FR) - Spatiotemporal control over signaling between artificial micro-compartment with a coacervates 'glue'

P12 - **Afroditi Koutsogianni** (ES) - Tuneable Photonic Supercrystals on Mirror by Template-Assisted Self-Assembly technique

P13 - **Qing Li** (BE) - All-Natural, Robust, and pH-Responsive Glycyrrhizic Acid-Based Double Network Hydrogels for Controlled Nutrient Release

P14 - **Gabriele Manca** (IT) - Piezo- and piezophoto-catalytic waste water remediation by ZnO micro- and nano-structures

P15 - **Elise Merville** (FR) - Emulsions and catastrophic phase inversion

P16 - **Nigar Namazzade** (FR) - Theory and Design of Passive Daytime Radiative Coolers



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P17 - **Philippe Nguyen** (FR) - Plankton cells as an active matter probe

P18 - **Adel Noon** (FR) - Novel phenothiazine-based oxime esters acting as visible light sensitive high performance radical photoinitiators and potential photobase generators

P19 - **Ognyan Petkov** (BG) - β -alanine substitution in KLAKLAK-peptides with low mammalian cytotoxicity: alteration of glycerophospholipid membrane properties

P20 - **Ramanujam Ramanujam** (FR) - Study of bio-mimetic membranes composed of glycosylated lipids

P21 - **Laura Riedel** (DE) - Interfacial behavior of yeast proteins at the oil-water interface

P22 - **Emilio Romero** (UK) - Potential improvements to cytokine microdialysis using colloidal agents and surfactants

P23 - **Yalini Sadasivam** (UK) - Investigation of plant-based surfactants to replace synthetic surfactants in cosmetic and food industries

P24 - **Bochra Seaali** (FR) - Elaboration of nanostructured surfaces by deposition of polymeric Janus Nanorods

P25 - **Antoine Vardon** (FR) - Design of hierarchical porous catalysts from colloidal dispersion

P26 - **Kelvin Wong** (UK) - Utilizing Machine Learning to Estimate Colloidal Interaction Parameters from Small Angle X-Ray Scattering Curves



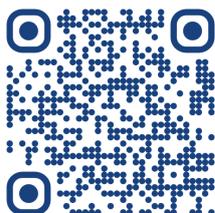
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Practical info



The talks, poster session and Meet and Greet will take place at
ENSMAC

16 Av. Pey Berland, 33600 Pessac



We will take the lunches at the Passerelle

Av. Léon Duguit, 33600 Pessac



The Gala dinner will take place at the Café du Port

1 Quai Deschamps, 33100 Bordeaux

Contact info

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