

PSL Soft and Living Matter days Full Program

SUMMER School

Monday July 5th

08:30 - 09:00 Welcome

9:00 - 9:15 Introduction

09:15 - 10:45 **Jasna Brujic** (New York University) - Programmable Self-assembly of Emulsion Droplets into Soft Materials

10:45 - 11:15 Break

11:15 - 12:45 **Christophe Tribet** (ENS) - Photoswitches in Soft Assemblies & Polymers: perturbation tools, dynamic actuators

12:45 - 14:15 Lunch

14:15 - 14:55 Student talk session (3*13 minutes)

A phase-field model for computing elasto-capillary flows of liquid crystals
Mingfeng Qiu, James Feng, Jean- Christophe Loudet

Surface-tension gradient in thin films: why foams form in liquid mixtures
Hoai Phuong Tran, Mélanie Arangalage, Loren Jorgensen, Nicolas Passade-Boupat, François Lequeux, Laurence Talini

Fluctuation relations and linear response inequalities for selection strength in lineage trees
Arthur Genthon, david lacoste

14:55 - 16:25 **P. Sens** (I. Curie) - Non-equilibrium modelling of cellular organelles

16:25 - 16:55 Break

16:55 - 17:35 Student talk session (3*13 minutes)

Survival probability of a run-and-tumble particle
Benjamin De Bruyne, Satya Majumdar, gregory schehr

Numerical Modeling of the Large Stretch of Adhesive Fibrils
Krupal Patel, Matteo Ciccotti, Etienne Barthel

Light-controlled bioconvection flows
Aina Ramamonjy, Julien Dervaux, Philippe Brunet

Tuesday July 6th

09:00 - 10:30 **Eva Kanso** (Univ. South California) - The biophysics of cilia and flagella

10:30 - 11:00 Break

11:00 - 12:30 **Jutta Rieger** (Sorbonne Université)- Polymerization Induced Self-assembly and reversible-Deactivation Radical Polymerization for nanomaterials design

12:30 - 14:00 Break Lunch

14:00 - 14:40 Student talks (3 * 13 minutes)

Kinetic Monte-Carlo algorithms for standard active-matter models

Juliane U. Klamser, Olivier Dauchot, Julien Tailleur

Structure/property relationships of alginate based-injectable hydrogels

Lucile Barbier, Dominique Hourdet, Yvette Tran, Guylaine Ducouret

Entangled active nematic oscillators

Martina Clairand, Jérôme Hardouin, Uroš Tkalec, Jordi Ignés-Mullol, Francesc Sagués, Teresa López-León

14:40 - 16:10 **Stephano Aime** (ESPCI) - Scattering methods in soft matter

16:10 - 16:40 Break Terrasse

16:40 - 17:20 Student talks (3 * 13 minutes)

Rheology of suspensions in the thermal crossover: an inclined plane experiment under confocal observation.

Alice Billon, Yoel Forterre, Olivier Pouliquen, Olivier DAUCHOT

Filtration through porous hydrogel matrix

Malak Alaa Eddine, Sabrina Belbekhouche, Bruno Bresson, Cecile Monteux

A fluid fuse: flow-induced choking of a compliant Hele-Shaw cell

Finn Box, Gunnar Peng, Draga Pihler-Puzovic, Anne Juel

Wednesday, July 7th

09:00 - 10:30 **Renaud Nicolay** (ESPCI) - Dynamic Chemical Networks: Design and Synthesis

10:30 - 11:00 Break

11:00 - 12:30 **Stephanie Descroix** (Institut Curie) - Organ on chip for biology and biophysics

12:30 - 14:00 Lunch

14:00 - 15:30 **Frédéric Lechenault** (ENS Dpt Physique) - Mechanical Metamaterials
