

PSL Soft and Living Matter days Full Program

WORKSHOP

Thursday, July 8th

8:30-9:00 Welcome

09:00 - 09:15 Introduction by Rémi Carminati (Dean of Research of PSL) and Costantino Creton (ESPCI Dean of research)

09:15 - 09:45 INV TALK **Lydéric Bocquet** (ENS) - Nanofluidics and the development of iontronics

09:45 - 10:45 SESSION Surfaces and Interfaces

Phase separation of a confined binary mixture in a temperature gradient
Marc Pascual, Marie-Caroline Jullien

Polymer drop impacts
Aditya Jha, Christophe Clanet, David Quéré

Emulsion-Templated Poly(N-isopropylacrylamide) Shells Formed by Thermo-Enhanced Interfacial Complexation
Lucas SIXDENIER, Christophe Tribet, Emmanuelle Marie

Delamination of a thin sheet from an adhesive sphere
Vincent Démery, Benjamin Davidovitch, Dominic Vella, Finn Box

10:45 - 11:15 Break

11:15 - 12:00 SESSION Interfacial mechanics

Micromechanics and molecular interpretation of cavitation in soft polymer layers
Flora-Maud Le Menn, Costantino Creton, Etienne Barthel

Interparticle friction and Bulk rheology of Dense suspensions
Anh Vu Nguyen Le, Annie Colin, Guillaume Ovarlez

Transient frictional response of thin hydrogel films: the role of poroelasticity
Lola Ciapa, Yvette Tran, Antoine Chateauminois, Emilie Verneuil

12:00 - 14:00 Lunch

14:00 - 14:30 INV TALK **T. Budtova** (Mines ParisTech) - Bio-aerogels: a new generation of aerogels. Case of thermal insulation and super-insulation

14:00 - 14:30 SESSION Dynamics of polymer systems

Hydrogel thin films: Hydrogel/Substrate interfacial Properties
Anusree Augustine, Yvette Tran, Emilie Verneuil, Antoine Chateaubinois

Near-wall velocimetry in semi-dilute polymer flows
Gabriel Guyard, Alexandre Vilquin, Nicolas Sanson, Stephane Jouenne, Frédéric Restagno, Joshua McGraw

Challenges in implementation and rheological characterisation of high Tg vitrimers
Sélène Chappuis, François Tournilhac

Slimming down through frustration
Martin Lenz

15:30 - 16:00 Break

16:00 - 16:30 INV TALK **Teresa Lopez Leon** (ESPCI) - Self-organization under confinement: from liquid crystals to active materials

16:30 - 17:30 SESSION Active systems

Large-Size Honeycomb-Shaped and Iris-Like Liquid Crystal Elastomer Actuators
Gaoyu Liu

A photostable red and NIR amphiphilic polymer photosensitizer with aggregation-induced emission for image-guide photodynamic therapy
ZHANG nian, CHEN hui, LI min-hui

Taming active nematics with geometrical boundaries
Claire Doré, Teresa Lopez-Leon, Francesc Sagues, Jordi Ignés-Mullol, Jérôme Hardouin

Dynamics of active colloidal gel
Mengshi Wei, Ben Zion Matan Yah, Olivier Dauchot

Friday, July 9, 2021

09:00 - 09:30 INV TALK **Julie Plastino** (Institut Curie) - Actin-based forces during *C. elegans* development

09:30 - 10:30 SESSION Biophysics

Ordered phase transitions in the acto-myosin cortex of motile bleb protrusions
Juan Manuel GARCIA ARCOS, Matthieu Piel

Compaction and localization of the bacterial nucleoid
Ander Movilla Miangolarra, Sophia Hsin-Jung Li, Jean-François Joanny, Ned S. Wingreen, Michele Castellana

The hydrodynamically optimal length of a flagellum
Alexander Chamolly, Eric Lauga

Self-organization of human mesenchymal stem cells into spheroids trapped with acoustic waves.
Nathan Jeger-Madiot, Lousineh Arakelian, Niclas Setterblad, Patrick BRUNEVAL, Mauricio Hoyos, Jerome Larghero, Jean-Luc Aider

10:30 - 11:00 Break

11:00 - 11:30 INV TALK **Min-Hui Li** (ENSCP) - Biomimetic membranes by amphiphilic polymers

11:30 - 12:30 SESSION Gelation and glass transition

Bringing together different approaches to the glass transition?
Paddy Royall

Collagen, from supramolecular assembly to tissue reconstruction
Carole Aimé, Marie-Claire Schanne-Klein, Yong Chen

Chemical modulation of supramolecular interactions in model collagen gels for advanced mechanical responses
Julie Brun, Nadège Pantoustier, Dominique HOURDET, alba marcellan

Supramolecular Cross-linked Hydrogels: Similarities and Differences with Chemically Cross-linked Networks
Sandrine LAQUERBE, Julien Es Sayed, Cédric Lorthioir, Christophe Meyer, Tetsuharu Narita, Guylaine Ducouret, Patrick Perrin, Nicolas Sanson
