



The Society of Rheology, Japan

OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY GRADUATE UNIVERSITY

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“New Aspects of Micro- and Macroscopic Flows in Soft Matters”

Jointly organized by OIST and SRJ (The Society of Rheology, Japan)

DATE: Monday, August 15, 2016 – Wednesday, August 17, 2016

LOCATION: OIST Seaside House and OIST Main Campus (Day 1 only)

Program

Arrival day (Sunday, August 14) Venue: Chura Hall at Seaside House

18:00 Welcome Dinner (Closed)

Day 1 (Monday, August 15) Venue: B250 Main Campus (9:00-)

9:00–9:20 Introduction

Interface and Instabilities – Chair: Peter Fischer

9:30-9:55 “Two-dimensional foam under shear: bubble migration, size segregation and evolving rheology” (Prof. James Feng)

9:55-10:20 “Asphaltenes at oil-water interfaces and their role in coalescence” (Prof. Dimitris Vlassopoulos)

10:20-10:45 “Properties of self-propelled droplets in a Leidenfrost state on liquid substrates” (Dr. Stoeffel Janssens)

10:45-11:00 Coffee Break

Interface and Instabilities – Chair: Sandra Lerouge

11:00-11:25 “The stabilizing effect of shear thinning on the onset of purely elastic instabilities in serpentine microflows” (Prof. Anke Lindner)

11:25-11:50 “Flow of wormlike micellar solutions around confined microfluidic cylinders” (Dr. Simon Haward)

11:50-12:15 “Heat transfer recovery on a surfactant drag-reducing flow” (Prof. Hiroshi Suzuki)

12:15–13:50 Lunch and Campus Tour (OIST Campus)



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Colloidal Systems and Microstructure Formation – Chair: Tsutomu Takahashi

- 14:00-14:25 “(Hydro)dynamics of self-propelled camphor boats at air-water interfaces”
(Prof. Mahesh Bandi)
- 14:25-14:50 “Hydrodynamics of copepod locomotion, feeding, and sensing”
(Prof. Daisuke Takagi)
- 14:50-15:15 “Steady and transient rheology of Graphene Oxide solutions”
(Dr. Francesco Del Giudice)
- 15:15-15:40 “Patterning surfaces with colloid-bottlebrush polymer suspensions”
(Prof. Michel Cloitre)
- 15:40-15:55 [Coffee Break](#)

Rheology and Dynamics of Complex Fluids – Chair: Charles Schroeder

- 15:55-16:20 “Shear banding (or not) in entangled polymers: what is the parameter space in which to look (or not)?” (Prof. Peter Olmsted)
- 16:20-16:45 “Dynamics of semidilute polymer solutions” (Prof. Ravi Jagadeeshan)
- 16:45-17:10 “Viscoelastic properties of supramolecular polymer melts end-functionalized with coordinative interactions” (Prof. Evelyne van Ruymbeke)
- 18:45-20:00 [Dinner \(Closed\)](#)

Evening Session – Chair: John Brady

- 20:00-20:30 “Evolution of miscible liquid sessile and pendant drops” (Prof. Gerry Fuller)
- 20:30-21:00 “Quantitative MODELING of The Extensional Rheology of saliva using a sticky Finitely extensible network (SFEN) model” (Prof. Gareth McKinley)



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Day 2 (Tuesday, August 16) Venue: Seaside House

Interface and Instabilities – Chair: Jan Vermant

- 9:00–9:25 “Fracture in polymeric liquids” (Prof. Ole Hassager)
- 9:25-9:55 “Elastically driven, intermittent microscopic dynamics in soft solids”
(Prof. Emanuela Del Gado)
- 9:55-10:20 “Grain boundary kinetics during crystallization in magnetic colloidal
monolayers” (Dr. Ryohei Seto)
- 10:20-10:45 “Numerical portrayal of elastic flow instability, its possible remedy and route to
chaos with emphasis on melt fracture” (Prof. Youngdon Kwon)
- 10:45-11:00 [Coffee Break](#)

Rheology and Dynamics of Complex Fluids – Chair: Gerry Fuller

- 11:00-11:25 “Non-linear stress relaxation behavior of long chain polymer network and
orientability of UHMWPE gels” (Prof. Ping Gao)
- 11:25-11:50 “Orientational cross correlation in entangled polymers”
(Prof. Yuichi Masubuchi)
- 11:50-12:00 [Lunch pick up and leave for Excursion \(Participants Only\)](#)
- 12:00-18:00 [Excursion to Aquarium \(Participants Only\)](#)
- 18:15-20:00 [Dinner \(Closed\)](#)

Evening Session – Chair: Ron Larson

- 20:00-20:30 “Shear thickening in colloidal dispersions: colloidal hydrodynamics, dilatancy
and/or friction” (Prof. Norm Wagner)
- 20:30-21:00 “The many faces of long end-associative polymers” (Prof. Julie Kornfield)



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Day 3 (Wednesday, August 17) Venue: Seaside House

Measurement and Modeling Techniques – Chair: Tadashi Inoue

- 9:00-9:25 “Moving from time to frequency domain without artefacts”
(Prof. Manlio Tassieri)
- 9:25-9:55 “Onsager principle - a useful principle in soft matter dynamics”
(Prof. Masao Doi)
- 9:55-10:20 “Advances in large-amplitude oscillatory shear flow of polymeric liquids”
(Prof. Jeffrey Giacomin)
- 10:20-10:30 **Coffee Break**

Measurement and Modeling Techniques – Chair: Paula Wood-Adams

- 10:30-10:55 “Coarse-graining in description of entanglement dynamics of polymers”
(Prof. Hiroshi Watanabe)
- 10:55-11:20 “Macro- and microscopic observation of dissolution process of cellulose into a few different ionic liquids” (Prof. Yoshiaki Takahashi)
- 11:20-11:45 “New numerical algorithms for the identification of linear viscoelasticity of polymers” (Prof. Kwang Soo Cho)
- 11:45-13:00 **Lunch (Closed)**

Polymers and Turbulence – Chair: Rob Poole

- 13:00-13:25 “Energy cascade in Reynolds’ flashes” (Prof. Pinaki Chakraborty)
- 13:25-13:50 “Vortex deformation on two-dimensional turbulence affected by polymers”
(Prof. Ruri Hidema)
- 13:50-14:15 “Flow-induced friction reduction and tumbling effects in entangled polymers”
(Prof. Giovanni Ianniruberto)
- 14:15-14:30 **Coffee Break**

Polymers and Turbulence – Chair: Amy Shen

- 14:30-14:55 “Effect of rain-induced turbulent dissipation on hurricane intensity”
(Dr. Tapan Sabuwala)
- 14:55-15:20 “Exact coherent structures in purely elastic turbulence”
(Prof. Alexander Morozov)
- 15:20-15:45 “Activation energy of associative polymers” (Prof. Quan Chen)
- 18:30-18:45 **Eisa Dance Performance by OCVB**
- 18:45-20:00 **Dinner (Closed)**