Soft Matter Physics:
from the perspective of the essential heterogeneity

10th-12th December 2018, Nishijin Plaza, Kyushu University, Fukuoka, Japan

10th Dec. (Mon)

9:30 Registration

10:00 Ryoichi Yamamoto,
Opening

10:10 S. Granick,
Enzymes are active matter

10:40 N. Uchida,
Cooperativity and frustration in the dynamics of flagella, cilia, and related systems

11:10 D. Mizuno,
Non-Gaussian limit fluctuations in active swimmer suspensions

11:30 H. Löwen,
Active Soft Matter Physics: From colloids to vibrobots

12:00 Lunch

13:30 Poster session (with coffees & cakes)

15:30 M. Sano,
Orientational order and topological defects in biological active matter

16:00 C-M. Chou,
Nonequilibrium Self-Organization Phenomena in Droplet Spinodal Decomposition

16:20 J.P. Gong,
Multi-scale Design of Hydrogels with Reversible Sacrificial Bonds – From Toughness to Adhesion to Composites –

16:50 T. Hatano,
Fate of accelerating slip on self-affine rough interfaces

17:20 Short break

17:30 R. Okamoto,
Density fluctuations and solute-induced phase separation in a fluid mixture composed of a binary solvent and a nonionic hydrophobic solute

17:50 Y. Fujitani,
Drag coefficient of a Circular Liquid Domain in a Near-Critical Binary Fluid

Membrane

11th Dec. (Tue)

9:10 K. Koga,
Interfacial tensions near the critical endpoints and the tricritical point of three-phase equilibria: Mean-field density-functional model

9:40 K. Takae,
Water in a Capacitor: Structure, Fluctuation, and Response

10:00 D. Andelman,
Charge Regulation in Colloid Solutions and other Complex Fluids

10:30 Y. Uematsu,
Jones-Ray effect can be explained by charged impurities

10:50 Break

11:10 A. Onuki,
Linear Response Theory in Glasses

11:50 Lunch

13:20 Y. Tabe,
Rigid-body Rotations of Chiral and Achiral Liquid Crystalline Droplets Driven by Linear Fluxes

13:50 A. Matsusyama,
Helical Inversions of Chiral Liquid Crystalline molecules

14:10 J. Fukuda,
Exotic mesoscale structures in a thin film of a chiral liquid crystal

14:40 H. Kikuchi,
Ferroelectric-like Order along the Director in Fluid Liquid Crystals

15:00 Break

15:30 W. Kob,
The ideal glass: More than just vibrations

16:00 D. Bonn,
The surface of ice

16:30 Short break

16:40 R. Kurita,
Transient stagnant domain formation in a thermal convection

17:00 T. Uneyama,
Fluctuation of Diffusion Coefficient in Coarse-Grained Models of Entangled Polymers

18:30 Banquet at Hakata Hanamidori

12th Dec.(Wed)

9:10 T Kawasaki,
A non-equilibrium phase transition in particle trajectories near the jamming transition

9:40 K. Nishizawa,
Glassy cytoplasm driven by non-thermal forces

10:00 N. Miyamoto,
Liquid crystallinity and rheology of non-aqueous colloids of clay nanosheets

10:20 Break

10:40 K. Miyazaki,
TBA

11:10 A. Lemaitre,
Causes and consequences of long-range stress correlations in glasses

11:40 H. Tanaka,
Closing

Poster session (Monday 13:30-15:30)

1. M. Ueda, Replica symmetry breaking in trajectory space for diffusion in logarithmically correlated random potentials
2. S. Aya, Electrically-Controlled Kinetics of Topological Solitons inNematics
3. H. Shiba, Separating long-wavelength fluctuation from structural relaxation in 2D glassy dynamics
4. T. Araki, Propelled motion of a Janus particle in binary mixtures
5. K.-W. Lee, Viscosity-reduced substrates for the high performance liquid crystal display,
6. R. Okiyama, Relationship between an internal structure of granular material and a force chain
7. K. Morinaga, Dynamics of recrystallization of droplet with pinning the edge
8. N. Yanagisawa, Relaxation dynamics in a quasi-two-dimensional foam
9. N. Shiokawa, Phase separation in charged lipid membranes under isothermal conditions: multivalent cation and membrane tension
10. T. Ikeda, AC electrophoretic mobility of a single colloidal particle studied by holographic video microscopy
11. K. Iki, AC electrophoretic mobility of an optically trapped colloidal particle

12. M. Makuta, Anomalous diffusion and fluctuation of a cell-sized actomyosin droplet
13. K. Kobayashi, Close relation for the gravitational instability between a physical gel and granular material
14. S. Yabunaka, Electric double layer composed of an antagonistic salt in an aqueous mixture: Local charge separation and surface phase transition
15. A. Suematsu, Dependence of effective interaction between charged colloidal particles on co-ion charge; An analysis using HNC-OZ theory
16. Y. Maki, Multi-Particle Tracking Analysis of Gelatin/Water during Gelation Process
17. T. Tsukada, Pattern formation during phase separation by radial quenching
18. S. Suda, Motion transition of a self-propelled water-in-oil droplet studied with measurements of the internal
19. K. Kondo, Size and density dependency on radial segregation in a rotating cylinder
20. Y. Iwashita, Unique motion of a highly asymmetrically-shaped self-propelled particle
21. S. Hayashibara, Microrheology of dense colloidal suspension under localized force
22. Y. Sugino, Metabolic Activity and Rheology of in vitro Cytoplasm
23. Y. Nakayama, Shear-thickening in a dilute suspension of spheres in a weakly viscoelastic fluid: an approach with a direct numerical simulation
24. H. Ito, Coarse-grained molecular dynamics simulation of phase separation and morphological dynamics of a charged lipid
25. K. Takae, Shape controls polarization: Self-organization into ferroelectric and antiferroelectric crystals by shape-anisotropic particles
26. K. Mitani, Rheology of active gels with microbial migrations
27. T. Okuzono, Diffusiophoretic motion of a charged particle undergoing chemical reaction on its surface
28. S. Inagaki, Non-monotonic segregation dynamics in a half-filled rotating cylinder
29. T. Yamaguchi, Shear Thinning and Nonlinear Structural Distortion of Ionic Liquid with Long Alkyl
30. A. Sasakura, Shape deformation dynamics of lipid bilayer membrane induced by a chemical stimulus
31. Y. Ando, Non-equilibrium fluctuation in microorganism suspension
32. T. Oguri, Direct Numerical Simulation of Induced-Charge Electrophoresis of Janus Colloidal Particles
33. J. J. Molina, Mechanosensitivity of Fast-Crawling Cells
34. K. Suda, Crystallization of transmembrane protein and phase diagrams of binary hard disks
35. A. Furukawa, Shear-thinning in glassy liquids