

## Active Matter Workshop 2018

2018/1/19 Fri.

9:00 - 9:15 Registration  
9:15 - 9:20 Opening  
9:20 - 10:00 **PL** Nobuhiko J. Suematsu (Meiji Univ.)  
“Self-Propelled Objects from Viewpoint of Nonlinear Science”  
10:00 - 10:10 Break  
10:10 - 11:40 **ST1**  
11:40 - 13:00 Lunch  
13:00 - 14:50 **ST2**  
14:50 - 15:10 Break  
15:10 - 15:50 **FL** Kenta Ishimoto (Kyoto Univ.)  
“Coarse-grained modelling of human sperm: towards the collective dynamics”  
15:50 - 16:30 **FL** Daisuke Mizuno (Kyushu Univ.)  
“Non-Gaussian limit fluctuations in active swimmer suspensions”  
16:30 - 17:00 Break  
17:00 - 18:15 **ST3**  
19:00 - Banquet

2018/1/20 Sat.

9:40 - 11:10 **ST4**  
11:10 - 11:40 Break  
11:40 - 12:20 **PL** Shin-ichiro M. Nomura (Tohoku Univ.)  
“Molecular Robotics: yet another artificial cell”  
12:20 - 13:00 **FL** Makoto Iima (Hiroshima Univ.)  
“*Euglena gracilis* as an active matter: statistical motion and collective behavior”  
13:00 - 14:30 Lunch  
14:30 - 15:10 **FL** Takuji Ishikawa (Tohoku Univ.)  
“Near-field fluid mechanics alter behaviors of swimming microorganisms”  
15:10 - 15:50 **FL** Nariya Uchida (Tohoku Univ.)  
“Hydrodynamic effects in the collective motion of bacteria”  
15:50 - 16:00 Closing

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Presentation time

**PL:** Plenary lectures [40 min each, including discussions]

**FL:** Focused lectures [40 min each, including discussions]

**ST:** Short talks [15 min presentation + approx. 3 min discussions for each]

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## Groups of Short talks

### ST1

1. Ohmura, Takuya “Swimming behavior of ciliates in microfluidic flow”
2. Imamura, Shun “Collective motion of self-propelled droplets by Marangoni effect”
3. Kaneko, Kojiro “MD simulation for the emergence of single vortex by self-propelled rods in a circular well”
4. Ueno, Hiroshi “Coffee Telling: Patterns of Ground Beans in Shear Flow and Dewetting”
5. Okada, Masahide “Size-dependency of self-splitting oil droplets on aqueous surface.”

### ST2

1. Kimura, Akatsuki “Cytoplasmic Streaming in the nematode, *C. elegans*”
2. Tarama, Mitsusuke “A minimal model of crawling cells under force-free condition”
3. Schnyder, Simon “Colony growth of cells on a substrate”
4. Molina, John “Mechanosensitivity of Crawling Cells”
5. Hiraiwa, Tetsuya “Theory on chemotactic migration of eukaryotic cells”
6. Koyano, Yuki “Interaction of elliptic camphor particles”

### ST3

1. Araki, Takeaki “Illumination-induced motion of Janus particle in binary mixtures”
2. Nishiguchi, Daiki “Flagellar dynamics of flexible chains of self-propelled Janus particles fueled by an AC electric field”
3. Iwasawa, Junichiro “Directed Collective Motion of Asymmetric Colloidal Particles under an AC electric field”
4. Tanida, Sakurako “Collective motion of microtubules driven by kinesins”

### ST4

1. Yoneya, Makoto “Azo-dyes as a molecular active matter: Molecular dynamics simulation study”
2. Tsuruyama, Tatsuaki “Potential of Active Matter Studies in Medical Physics Research~ as a Participant of Synergy of Fluctuation and Structure from Medical Field”
3. Fadda, Federico “Self-propelled droplets through Marangoni effect”
4. Ban, Takahiro “Mode changes in the motion of self-propelled droplets driven by dewetting effect on solid surface”
5. Yamamoto, Takaki “Gravity-induced rotation of chiral liquid crystal droplets”