

Annual Workshop
on Modeling and Simulation in Applied Mathematics
Department of Mathematics Graduate School of Science, Josai University

Venue: Room 22, The 3rd Building, Tokyo Kioi-cho Campus, Josai University

Date/Time: Dec. 20 (Sun.), 2015 / 9:30 - 17:00

Program:

9:30 - 9:40 **Opening**

9:40 - 10:40 Chair: Hidenori Yasuda (Josai University)

- *“Mathematical Modeling and Simulation for Origami Tsunami Pod”*
Eri NAKAYAMA (Meiji University), Takamichi SUSHIDA (Meiji University)
and Ichiro HAGIWARA (Meiji University)
- *“Bland’s rule for the Network Simplex Algorithm”*
Sennosuke WATANABE (Doshisha University) and Yoshihide WATANABE
(Doshisha University)

10:40 - 10:50 **Coffee Break**

10:50 - 11:50 Chair: Masahiro Fujita (Josai University)

- *“Numerical simulation of the behavior of three rising bubbles by an energy-stable finite element scheme”*
Masahisa TABATA (Waseda University)
- *“Mesoscale modeling of colloidal suspensions with adsorbing solutes”*
Rei TATSUMI (The University of Tokyo), Osamu KOIKE (Products Innovation Association) and Yukio YAMAGUCHI (Products Innovation Association)

11:50 - 13:00 **Lunch**

13:00 - 14:00 Chair: Manabu Inuma (Josai University)

- *“Numerical simulation of fouling by particles in dead-end constant-pressure microfiltration”*
Kazuki AKAMATSU (Kogakuin University), Shosuke KANASUGI (Kogakuin University), Masahiro FUJITA (Josai University) and Shin-ichi NAKAO (Kogakuin University)
- *“Behavior analysis of coating layer particles in cosmetic materials during drying by observation and computational simulation”*
Katsuyuki HASEGAWA (Shiseido CO., LTD.), Akio NASU (Shiseido CO., LTD.) and Masahiro FUJITA (Josai University)

14:00 - 14:10 **Coffee Break**

14:10 - 15:10 Chair: Takahiro Tsuchiya (Josai University)

- *“Simulated pathogenesis of severe acute respiratory distress syndrome and leukopenia induced with influenza A/H5N1 virus infection and its treatment with immunoglobulins”*

Hidenori YASUDA (Josai University), Shohji KAWACHI (National Center for Global Health and Medicine) and Kazuo SUZUKI (The Asia International Institute of Infectious Disease Control, Teikyo University)

- *“Endemic threshold analysis for the Kermack-McKendrick reinfection model”*
Hisashi INABA (The University of Tokyo)

15:10 - 15:20 **Coffee Break**

15:20 - 16:50 Chair: Manabu Inuma (Josai University)

- *“Accurate numerical integration algorithm for the Kepler motion”*
Yosuke NAKANISHI (Pixela Corporation), Yukitaka MINESAKI (Tokushima Bunri University) and Yoshimasa NAKAMURA (Kyoto University)

- *“Invariant N -gon relative equilibria of discrete-time $(1 + N)$ -body problem with small arbitrary masses”*
Yukitaka MINESAKI (Tokushima Bunri University)

- *“Reaction-diffusion models with a conservation law and pattern formations”*
Yoshihisa MORITA (Ryukoku University) and Naoyuki SHINJO (Ryukoku University)

16:50 - 17:00 **Closing**

List of Participants

Akamatsu, Kazuki	Kansai University
Fujita, Masahiro	Josai University
Fujita, Shoichi	Josai University
Hagiwara, Ichiro	Meiji University
Hasegawa, Katsuyuki	Shiseido CO., LTD.
Inaba, Hisashi	The University of Tokyo
Inuma, Manabu	Josai University
Koike, Osamu	Products Innovation Association
Minesaki, Yukitaka	Tokushima Bunri University
Morita, Yoshihisa	Ryukoku University
Nakamura, Toshiko	Josai University
Nakamura, Yoshimasa	Meiji University
Nakayama, Eri	Meiji University
Nasu, Akio	Shiseido CO., LTD.
Shinjo, Naoyuki	Ryukoku University
Tabata, Masahisa	Waseda University
Tatsumi, Rei	The University of Tokyo
Tsuchiya, Takahiro	Josai University
Watanabe, Sennosuke	Doshisha University
Watanabe, Yoshihide	Doshisha University
Yasuda, Hidenori	Josai University