

Kyoto University Research Institute of Mathematical Sciences (KRIMS) Symposium on

"Mathematical Aspects of Complex Fluids and Their Applications"

(November 16 - 18, 2005)

Organizers: Osamu Sano (Tokyo Univ. Agri. Tech.)
Hisao Hayakawa (Kyoto Univ.)
Hiraku Nishimori (Hiroshima Univ.)

Program

November 16 (Wednesday)

- 13:15-14:00 Masumi Serisawa (Coastal Engineering Laboratory Co. Ltd.)
Takaaki Uda (Public Works Research Center)
Takayuki Kumada (Laboratory of Aquatic Science Consultant Co. Ltd.)
Toshiro San-nami (Coastal Engineering Laboratory Co. Ltd.)
Kou Furuike (Coastal Engineering Laboratory Co. Ltd.)
Toshinori Ishikawa (Public Works Research Center)
Numerical model for beach changes
- 14:00-14:25 Hans-Georg Matuttis (Univ. Electrocomm.)
Strategies for an optimized simulation of granular particles in a Newtonian Fluid
- 14:25-14:50 Ivo Tabakov (Univ. Electrocomm.; Bulgarian Acad. Sci.)
Numerical algorithms for the simulation of granular particles in fluids
- 14:50-15:35 Takashi Matsushima (Tsukuba Univ.)
On the Flow of Irregularly-shaped Solid Grains
- 16:00-16:25 Akio Nakahara (Nihon Univ.)
Yousuke Matsuo (Nihon Univ.)
Imprinting memory into paste and control of crack patterns in drying process
- 16:25-16:50 Yoshihiro Yamazaki (Waseda Univ.)
Akihiko Toda (Hiroshima Univ.)
The spatiotemporal pattern formed by a deformed adhesive in peeling
- 16:50-17:15 Kazuaki Saito (Chuo Univ.)
Dynamics of growing interfaces of paper wetting

November 17 (Thursday)

- 09:00-09:25 Atsunari Katsuki (ERATO)
Makoto Kikuchi (Osaka Univ.)
Manipulating a barchan dune by sand flux
- 09:25-09:50 Chiyori Urabe (Kyoto Univ.)
Dynamics of fluctuation of the top location in formation process of a sandpile II
- 09:50-10:15 Hisao Hayakawa (Kyoto Univ.)
 $1/f^{\alpha}$ spectra in granular flows
- 10:35-11:00 Akinori Ochiai (Nagoya Inst. Tech.)
Masaru Bessho (Nagoya Inst. Tech.)
Masaharu Isobe (Nagoya Inst. Tech.)
Statistical properties of granular gas under microgravity
- 11:00-11:25 Soichi Tatsumi (Univ. of Tokyo)
Masaki Sano (Univ. of Tokyo)
Classification of granular gas under vertical vibration
- 11:25-11:50 Namiko Mitarai (Kyushu Univ.)
Hiizu Nakanishi (Kyushu Univ.)
Velocity correlation in granular shear flow
- 11:50-12:15 Kuniyasu Saito (Kyoto Univ.)
Hisao Hayakawa (Kyoto Univ.)

Simulation of granular shear flow

- 13:15-14:00 Katsuhiro Nishinari (Tokyo Univ.)
Collective dynamics of self-driven particles and jamming transition
- 14:00-14:25 So Kitsunezaki (Nara Women's Univ.)
Experiments on bioconvection of paramecia
- 14:25-14:50 Tatsuya Ozawa (Chuo Univ.)
Dynamics of growing interfaces of bacterial colonies
- 14:50-15:15 Hiraku Nishimori (Hiroshima Univ.)
Mathematical model for the chemotaxis of ants
- 15:35-16:00 Takeshi Mimbu (Tokyo Univ. Agri. Tech.)
Osamu Sano (Tokyo Univ. Agri. Tech.)
Study of granular flow through a hopper
- 16:00-16:25 Akinori Awazu (Tokyo Univ.)
Complex Rheology in Small Lattice Gas Models
- 16:25-16:50 Tetsuya Kawamura (Ochanomizu Univ.)
Naoko Tsuchiya (Fujitsu)
Simulation of the generation of various clouds in the stratified flow around a mountain
- 16:50-17:15 Toshiyuki Suzuki (Hokkaido Univ.)
Makoto Iima (Hokkaido Univ.)
Yumino Hayase (Hokkaido Univ.)
Experimental study of the transition of the flow driven by rotating disc
- 17:15-17:40 Junshi Ito (Tokyo Univ.)
Nonequilibrium Stationary Distribution of Vortex Filaments

November 18 (Friday)

- 09:00-09:25 Masayuki Kimura (Kyoto Univ.)
Takashi Hikiyama (Kyoto Univ.)
Global Phase Structure of Coupled Cantilever Arrays and Transition of Intrinsic Localized Mode
- 09:25-09:50 Hiroto Kuninaka (Kyoto Univ.)
Hisao Hayakawa (Kyoto Univ.)
Simulation for contact and low speed impact of elastic materials with defects
- 09:50-10:15 Shinya Komura (Waseda Univ.)
Yoshihiro Yamazaki (Waseda Univ.)
The collective motion of granular particles driven by the motion of interfaces in a two-phase system
- 10:35-11:00 Kazuto Ueno (Nagoya Univ.)
Morphological Instability of the solid-liquid interface under a thin shear flow
- 11:00-11:25 Satoshi Yukawa (Tokyo Univ.)
Molecular dynamics simulation of Volcanic Eruption
- 11:25-11:50 Fumiko Ogushi (Tokyo Univ.)
Satoshi Yukawa (Tokyo Univ.)
Nobuyasu Ito (Tokyo Univ.)
Heat Conduction in gas-liquid interface
- 11:50-12:15 Osamu Sano (Tokyo Univ. Agri. Tech.)
Undulation and ripple on a vertically vibrating granular layer---solid-fluid transition

(Updated October 17, 2005)