

JSMF Symposium on Multiphase Flow 2013 Timetable

【Friday, August 9, 2013】

Room A	Room B	Room C	Room D	Room E	Room F
OS-1 Industrial Application of Multiphase Flow (1) 9:10-10:10	OS-6 Sustainable Transdisciplin ary Integrated Multiphase Flow (1) 8:50-10:10	OS-8 Boiling and Two-Phase Flow in Microgravity (1) 8:50-10:10	OS-10 Modeling and Simulation of Particulate Multiphase Flow (1) 8:50-10:10	OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (1) 8:50-10:10	OS-13 Science of Micro/Nano Bubbles and Technological Application (1) 8:50-10:10
OS-1 Industrial Application of Multiphase Flow (2) 10:30-11:50	OS-6 Sustainable Transdisciplin ary Integrated Multiphase Flow (2) 10:30-11:50	OS-8 Boiling and Two-Phase Flow in Microgravity (2) 10:30-11:50	OS-10 Modeling and Simulation of Particulate Multiphase Flow (2) 10:30-11:50	OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (2) 10:30-11:50	OS-13 Science of Micro/Nano Bubbles and Technological Application (2) 10:30-11:50
OS-1 Industrial Application of Multiphase Flow (3) 13:10-14:30	OS-6 Sustainable Transdisciplin ary Integrated Multiphase Flow (3) 13:10-14:30	OS-8 Boiling and Two-Phase Flow in Microgravity (3) 13:10-14:30	OS-10 Modeling and Simulation of Particulate Multiphase Flow (3) 13:10-14:30	OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (3) 13:10-14:30	OS-13 Science of Micro/Nano Bubbles and Technological Application (3) 13:10-14:30
OS-3 Mass Transport and Water Treatment (1) 14:50-15:50	GS-3/6 Nuclear Power, Thermal Power, and Environment (1) 14:50-16:10	OS-15 Multiphase Flow of Micro and Mini Scale (1) 14:50-16:30	OS-10 Modeling and Simulation of Particulate Multiphase Flow (4) 14:50-15:50	OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (4) 14:50-15:50	OS-13 Science of Micro/Nano Bubbles and Technological Application (4) 14:50-15:50

【Saturday, August 10, 2013】

Room A	Room B	Room C	Room D	Room E	Room F
OS-3 Mass Transport and Water Treatment (2) 8:50-10:10	GS-3/6 Numerical Analysis of Multiphase Flow (1) 8:30-10:10	OS-15 Multiphase Flow of Micro and Mini Scale (2) 8:30-10:10	OS-7 Optical or Ultrasonical Measurement and Control, and their Applications (1) 8:30-10:10	OS-9 Multiphase Flow in Natural Phenomena (1) 8:30-10:10	OS-11 Dynamics of Multiphase Flow (1) 8:30-10:10
OS-3 Mass Transport and Water Treatment (3) 10:30-11:50	OS-2/4 Wettability and Multiphase Flow (1) 10:30-11:50	OS-5 Frow and Control of Multiphase Jet and Wake (1) 10:30-11:50	OS-7 Optical or Ultrasonical Measurement and Control, and their Applications (2) 10:30-11:50	OS-9 Multiphase Flow in Natural Phenomena (2) 10:30-11:50	OS-11 Dynamics of Multiphase Flow (2) 10:30-11:50
JSMF Symposium on Multiphase Flow 2013 Special Lecture					
13:00-16:00 SASTec, 3F Meeting Room					
13:10-14:00 Special Lecture I Ryuzo WAKABAYASHI (Alpine Research Institute of Avalanche)					
14:00-14:50 Special Lecture II Mari OSHIMA (The University of Tokyo, Interfaculty Initiative in Information Studies, Graduate School of Interdisciplinary Information Studies)					
14:50-15:40 Special Lecture III Yutaka ABE (University of Tsukuba, Graduate School of Systems and Information Engineering)					
JSMF Annual General Meeting					
16:00-18:00 SASTec, 3F Meeting Room					
Banquet					
18:30-20:30 Hotel Metropolitan Nagano (Nagano City)					

【Sunday, August 11, 2013】

Room A	Room B	Room C	Room D	Room E	Room F
OS-14 Multiphase Frow Technology and Application in Nuclear Engineering (1) 8:50-10:10	OS-2/4 Wettability and Multiphase Flow (2) 8:50-10:10	OS-5 Frow and Control of Multiphase Jet and Wake (2) 8:50-10:10	OS-7 Optical or Ultrasonical Measurement and Control, and their Applications (3) 8:50-10:10	OS-9 Multiphase Flow in Natural Phenomena (3) 8:50-10:10	OS-11 Dynamics of Multiphase Flow (3) 8:50-10:10
OS-14 Multiphase Frow Technology and Application in Nuclear Engineering (2) 10:30-11:50	OS-2/4 Numerical Analysis of Structures on Mesoscopic Scale (1) 10:30-11:50	OS-5 Frow and Control of Multiphase Jet and Wake (3) 10:30-11:50	OS-7 Optical or Ultrasonical Measurement and Control, and their Applications (4) 10:30-11:50	OS-9 Multiphase Flow in Natural Phenomena (4) 10:30-11:50	OS-11 Dynamics of Multiphase Flow (4) 10:30-11:50
OS-14 Multiphase Frow Technology and Application in Nuclear Engineering (3) 13:10-14:10	OS-2/4 Numerical Analysis of Structures on Mesoscopic Scale (2) 13:10-14:10	OS-5 Frow and Control of Multiphase Jet and Wake (4) 13:10-13:50			

Room A: Lecture Building, 1F Lecture Room #100

Room B: Lecture Building, 1F Lecture Room #101

Room C: Lecture Building, 1F Lecture Room #102

Room D: Lecture Building, 1F Lecture Room #103

Room E: Lecture Building, 2F Lecture Room #201

Room F: Lecture Building, 2F Lecture Room #200

JSMF

Symposium on Multiphase Flow 2013

Nagano, August 9-11, 2013
Shinshu University Faculty of Engineering
(4-17-1 Wakasato, Nagano 380-8553, Japan)

Friday, August 9, 2013

Room A (Lecture Building, 1F Lecture Room #100)

Organized Session OS-1 : Industrial Application of Multiphase Flow
Organizer : Isao KATAOKA (Osaka Univ.)

- OS-1 Industrial Application of Multiphase Flow (1) 9:10~10:10
Chair : Isao KATAOKA (Osaka Univ.)
- A111 Numerical and experimental study on liquid film break-up on packing elements
○Yoshiyuki Iso (IHI), Mariko Kato (IHI), Jian Huang (IHI), Shinsuke Matsuno (IHI)
- A112 Effect of the liquid property on the liquid film flow on an inclined wall
○Mariko Kato (IHI), Yoshiyuki Iso (IHI), Jian Huang (IHI), Shinsuke Matsuno (IHI)
- A113 Numerical simulation of slug generation at a v-shaped elbow between inclined pipes
○Motoki Irikura (Chiyoda Corp.), Munenori Maekawa (Chiyoda Corp.), Shigeo Hosokawa (Kobe Univ.), Akio Tomiyama (Kobe Univ.)
- OS-1 Industrial Application of Multiphase Flow (2) 10:30~11:50
Chair : Yoshiyuki ISO (IHI)
- A121 A study on classification phenomena of vertical coal mill by particle flow simulation
○Yoshiyuki Yamane (IHI), Mariko Kato (IHI), Masato Tamura (IHI)
- A122 Sewage sludge suction experiment using a steam ejector
○Kazuhiro Itoh (Univ. of Hyogo), Masakazu Sawai (TECHNOPLAN Co. Ltd), Hiroshige Kumamaru (Univ. of Hyogo), Yuji Shimogonya (Univ. of Hyogo)
- A123 Enhancement of spray flash by using microbubbles
○Takahiro Okazaki (Kyoto Univ), Zensaku Kawara (Kyoto Univ), Takehiro Yokomine (Kyoto Univ), Tomoaki Kunugi (Kyoto Univ)
- A124 On the process of rapid generation of superheated steam using a water containing porous material
○Shoji Mori (Yokohama National Univ.), Soichiro Hida (Yokohama National Univ.), Mikako Tanaka (Yokohama National Univ.), Kunito Okuyama (Yokohama National Univ.)

- OS-1 Industrial Application of Multiphase Flow (3) 13:10~14:30
Chair : Shoji MORI (Yokohama National Univ.)
- A131 Visualization of mixing process of supercritical and subcritical water by neutron radiography
○Hisashi Komeda (Kobe Univ.), Katsumi Sugimoto (Kobe Univ.), Nobuyuki Takenaka (Kobe Univ.), Ken-ichi Sugioka (Tohoku Univ.), Seiichi Takami (Tohoku Univ.), Takao Tsukada (Tohoku Univ.), Yasushi Saito (Kyoto Univ.)
- A132 Modeling of water drop in the gas channel and analysis of gas-velocity distribution in a PEFC
○Toshihiro Nakamura (Kobe Univ.), Hideki Murakawa (Kobe Univ.), Katumi Sugimoto (Kobe Univ.), Hitoshi Asano (Kobe Univ.), Nobuyuki Takenaka (Kobe Univ.), Yasushi Saito (Kyoto Univ. Research Reactor Institute)
- A133 Measurement and [transport](#) equation modeling of void fraction and interfacial area concentration in gas-liquid two-phase flow across horizontal tubes
○Tetsuya Kono (Osaka Univ.), Atsushi Ishikawa (IHI), Genki Ishikawa (Osaka Univ.), Keisuke Ishiyama (Osaka Univ.), Kenji Yoshida (Osaka Univ.), Isao Kataoka (Osaka Univ.)
- A134 Numerical Simulation of two-phase flows induced by air injection
○Kunihide Ohashi (NMRI)

Organized Session OS-3 : Mass Transport and Water Treatment

Organizer : Katsumi TSUCHIYA (Doshisha Univ.), Shigeo HOSOKAWA (Kobe Univ.) , Akiko KANEKO (Univ. of Tsukuba)

- OS-3 Mass Transport and Water Treatment (1) 14:50~15:50
Chair : Akiko KANEKO (Univ. of Tsukuba)
- A141 Instantaneous mass transfer around a bubble interface, and visualization of the surrounding liquid flow via Stereo-PIV
○Yoshinori Nobata (Shizuoka Univ.), Takayuki Saito (Shizuoka Univ.)
- A142 PIV/CFD analyses of restricted 3D wake flow induced by a surface-oscillating bubble of 2D-wall-confined rise
○Katsumi Tsuchiya (Doshisha Univ.), Jun Ishizaki (Doshisha Univ.), Takuya Sawada (Doshisha Univ.), Yasushige Mori (Doshisha Univ.)
- A143 Measurement of CO₂ concentration field around a bubble in a vertical pipe
○Shogo Hosoda (Kobe Univ.), Jiro Aoki (Kobe Univ.), Kosuke Hayashi (Kobe Univ.), Shigeo Hosokawa (Kobe Univ.), Akio Tomiyama (Kobe Univ.)

Room B (Lecture Building, 1F Lecture Room #101)

Organized Session OS-6 : Sustainable Transdisciplinary Integrated Multiphase Flow

Organizer : Jun ISHIMOTO (Tohoku Univ.), Takehiro HIMENO (Univ. of Tokyo), Junji SHINJO (JAXA), Kazunori KUWANA (Yamagata Univ.), Yuji NAKAMURA (Hokkaido Univ.), Hiromichi OBARA (Tokyo Metropolitan Univ.), Hidemasa TAKANA (Tohoku Univ.) , Masaaki MOTOZAWA (Tokyo Univ. of Science) , Masaya SHIGETA (Tohoku Univ.), Kazuo MATSUURA (Ehime Univ.), Naoya OCHIAI (Tohoku Univ.), Yuka IGA (Tohoku Univ.)

- OS-6 Sustainable Transdisciplinary Integrated Multiphase Flow (1) 8:50~10:10
Chair : Hiromichi OBARA (Tokyo Metropolitan Univ.)
- B111 Boiling Heat Transfer Characteristics of Binary Magnetic Fluids
○Haruhiko Yamasaki (Doshisha Univ.), Shinnya Umeda (Doshisha Univ.), Yuhiro Iwamoto (Doshisha Univ.), Xiao-Dong Niu (Shantou Univ.), Hiroshi Yamaguchi (Doshisha Univ.)
- B112 Investigation of Dry-Ice Sublimation and Heat Transfer Characteristics of Heat Pump System
○Sho Ozaki (Doshisha Univ.), Yuhiro Iwamoto (Doshisha Univ.), Xiao-Dong Niu (Shantou Univ.), Hiroshi Yamaguchi (Doshisha Univ.)
- B113 How can we design a numerical scale-model experiment of a large-scale gas explosion?
○Shoichi Ibaraki (Yamagata Univ.), Kazunori Kuwana (Yamagata Univ.)
- B114 Development of a sensing-based risk mitigation control system of leaking hydrogen
○Kazuo Matsuura (Ehime Univ.)
- OS-6 Sustainable Transdisciplinary Integrated Multiphase Flow (2) 10:30~11:50
Chair : Jun ISHIMOTO (Tohoku Univ.)
- B121 **【Keynote】** Novel applications of electrowetting phenomenon to liquid prisms with variable optic axis
○Manabu TANGE (Shibaura Inst. Tech.), Koudai YAMADA (TOPPAN PRINTING), Shin SHIOMITSU (TERUMO)
- B122 Effect of single-walled CNT concentration in photo-polymer on manipulation of conductivity and orientation using AC electric field
○Kohei Obuchi (TMU), Hiromichi Obara (TMU), Hiroshi Mizunuma (TMU)
- B123 **Canceled**
- OS-6 Sustainable Transdisciplinary Integrated Multiphase Flow (3) 13:10~14:30
Chair : Kazuo MATSUURA (Ehime Univ.)
- B131 Characteristic modeling and dynamic simulation of snow using the particle method
○Yosuke Yamamoto (Honda R&D Co., Ltd.), Jun Ishimoto (Tohoku Univ.), Naoya Ochiai (Tohoku Univ.)
- B132 A numerical study of cavitating flow by unifying sharp and diffused interface methods
○Daichi Matsubara (Tohoku Univ.), Mingyu Sun (Tohoku Univ.)
- B133 Study on cavitation induced by underwater shock wave generated by electric discharge and voltage threshold of cavitation generation in a narrow water tank
○Taketoshi Koita (Tohoku Univ.), Mingyu Sun (Tohoku Univ., IFS)
- B134 Numerical analysis of bubble behavior in megasonic field
○Naoya Ochiai (Tohoku Univ.), Jun Ishimoto (Tohoku Univ.), Jin-Goo Park (Hanyang Univ.)

General Session GS-3 & GS-6 : Numerical Analysis of Multiphase Flow & Nuclear Power, Thermal Power, and Environment

Organizer : Shinichi TSUDA (Shinshu Univ.)

GS-3/6 Nuclear Power, Thermal Power, and Environment (1) 14:50~16:10

Chair : Manabu TANGE (Shibaura Inst. Tech.)

- B141 Accuracy of Wire Mesh Sensor for Two-phase Flow Measurement in Taylor-Couette Flow
○Hamdani Ari (Tokyo Inst. Tech.), Daisuke Ito (Kyoto Uni.), Nobuyoshi Tsuzuki (Tokyo Inst. Tech.), Hiroshige Kikura (Tokyo Inst. Tech.)
- B142 PIV Flow Measurement for chaotic flow induced by Joule-heating
○Duong Thang Tung (Tokyo Inst. Tech.), Hiromasa Tanaka (Tokyo Inst. Tech.), Nobuyoshi Tsuzuki (Tokyo Inst. Tech.), Hideki Kawai (Muroran Inst. Tech.), Hiroshige Kikura (Tokyo Inst. Tech.)
- B143 Proposal of Free Surface Vortex Model with Appropriate Downward Velocity Distribution
○Kei Ito (JAEA), Toshiki Ezure (JAEA), Shuji Ohno (JAEA), Hideki Kamide (JAEA)
- B144 Validation of Nucleation Theories Using a Molecular Dynamics Calculation
○Taiki Ariizumi (Shinshu Univ.), Shinichi Tsuda (Shinshu Univ.)

Room C (Lecture Building, 1F Lecture Room #102)

Organized Session OS-8 : Boiling and Two-Phase Flow in Microgravity

Organizer : Haruhiko OHTA (Kyushu Univ.), Ryoji IMAI (IHI), Haruo KAWASAKI (JAXA), Hitoshi ASANO (Kobe Univ.), Osamu KAWANAMI (Univ. of Hyogo), Atushi OKAMOTO (JAXA)

- OS-8 Boiling and Two-Phase Flow in Microgravity (1) 8:50~10:10
Chair : Hitoshi ASANO (Kobe Univ.), Haruhiko OHTA (Kyushu Univ.)
- C111 Variation of heat transfer characteristics due to nucleate boiling of immiscible mixtures for the applications to space thermal management systems
○Shunsuke Onishi (Kyushu Univ.), Nobuo Ohtani (Kyushu Univ.), Shohei Kanazawa (Kyushu Univ.), Yuta Fukuyama (Kyushu Univ.), Haruhiko Ohta (Kyushu Univ.)
- C112 Study on flow regime and heat transfer in flow boiling of immiscible liquid mixture
Shohei Kanazawa (Kyushu Univ.), ○Yuta Fukuyama (Kyushu Univ.), Shunsuke Onishi (Kyushu Univ.), Nobuo Ohtani (Kyushu Univ.), Haruhiko Ohta (Kyushu Univ.)
- C113 Advanced High Heat Flux Cooling Technology (For working module of Microbubble Emission Boiling)
○Koichi Suzuki (Tokyo Univ. of Science-Yamaguchi), Kazuhisa Yuki (Tokyo Univ. of Science-Yamaguchi)
- C114 Advanced high heat flux cooling technology (Boiling heat transfer enhancement by nano-particles-assembled bi-porous structure)
○ Kazuhisa Yuki (Tokyo Univ. of Science-Yamaguchi), Tessai Sugiura (Tokyo Univ. of Science-Yamaguchi), Koichi Suzuki (Tokyo Univ. of Science-Yamaguchi)
- OS-8 Boiling and Two-Phase Flow in Microgravity (2) 10:30~11:50
Chair : Koichi Suzuki (Tokyo Univ. of Science-Yamaguchi), Ryoji IMAI (IHI)
- C121 Measurement for thermal behavior of boiling flow in chill down process by cryogenic fluid
○Daisuke Wada (IHI), Ryoji Imai (IHI), Rei Mihara (IHI)
- C122 Void fraction measurement of gas-liquid two-phase flow in a small diameter tube by capacitance method
○Taisaku Gomyo (Kobe Univ.), Hitoshi Asano (Kobe Univ.), Osamu Kawanami (Univ. of Hyogo), Yasuhisa Shinmoto (Kyushu Univ.), Haruhiko Ohta (Kyushu Univ.), Kiyosumi Fujii (JAXA)
- C123 Study of Image Analysis of A Transparent Heated Tube Section for ISS Experiment

- Yuta Yamaguchi (Hyogo Univ.), Osamu Kawanami (Hyogo Univ.), Kenji Saruwatari, (Hyogo Univ.), Yasuhisa Shinmoto (Kyusyu Univ.), Haruhiko Ohta (Kyusyu Univ.), Hitoshi Asano (Kobe Univ.), Kiyosumi Fujii (JAXA), Masahito Komasaki (JAXA), Takasi Kurimoto (JAXA)
- C124 Development of A Short Transparent Heated Tube for [Measurements](#) of Local Heat Transfer in Flow Boiling
Yuta Yamaguchi (Univ. Hyogo), ○Tomotaka Imai (Univ. Hyogo), Osamu Kawanami (Univ. Hyogo), Hitoshi Asano (Kobe Univ.), Haruhiko Ohta (Kyushu Univ.), Yasuhisa Shinmoto (Kyushu Univ.), Masahito Komasaki (JAXA), Takashi Kurimoto (JAXA), Kiyosumi Fujii (JAXA)
- OS-8 Boiling and Two-Phase Flow in Microgravity (3) 13:10~14:30
Chair : Haruo KAWASAKI (JAXA) , Atushi OKAMOTO (JAXA)
- C131 System characteristics of engineering model of two-phase flow loop for ISS experiments
○Hitoshi Asano (Kobe Univ.), Taisaku Gomyo (Kobe Univ.), Osamu Kawanami (Univ. of Hyogo), Tomoki Hirokawa (Kyushu Univ.), Yasuhisa Shinmoto (Kyushu Univ.), Haruhiko Ohta (Kyushu Univ.), Koichi Suzuki (Tokyo Univ. of Science-Yamaguchi), Ryoji Imai (IHI), Haruo Kawasaki (JAXA), Kiyosumi Fujii (JAXA), Takashi Kurimoto (JAXA), Masato Komasaki (JAXA)
- C132 Results of safety verification test for boiling two-phase flow experiment on orbit
○Kenichiro Sawada (JAXA), Takashi Kurimoto (JAXA), Masahito Komasaki (JAXA), Atsushi Okamoto (JAXA), Satoshi Matsumoto (JAXA), Kiyosumi Fujii (JAXA), Hitoshi Asano (Kobe Univ.), Osamu Kawanami (Univ. of Hyogo), Koichi Suzuki (Tokyo Univ. Science-Yamaguchi), Haruo Kawasaki (JAXA), Haruhiko Ohta (Kyushu Univ.)
- C133 Development of loop heat pipes for space applications
○Atsushi Okamoto (JAXA), Ryuta Hatakenaka (JAXA), Takeshi Miyakita (JAXA), Hiroyuki Sugita (JAXA)
- C134 Visualization of the oscillating heat pipe under microgravity condition
○Naoko Iwata (JAXA), Hiroyuki Ogawa (JAXA), Yoshiro Miyazaki (Fukui Univ. of Tech.)

Organized Session OS-15 : Multiphase Flow of Micro and Mini Scale

Organizer : Masahiro TAKEI (Chiba Univ.), Akimaro KAWAHARA (Kumamoto Univ.), Hideo IDE (Kagoshima Univ.), Naoki ICHIKAWA (AIST)

- OS-15 Multiphase Flow of Micro and Mini Scale (1) 14:50~16:30
Chair : Masahiro TAKEI (Chiba Univ.)
- C141 [Effect](#) of bend on [two](#)-phase flow in rectangular mini channel
○Shinichi Miyagawa (Kumamoto Univ), Michio Sadatomi (Kumamoto Univ), Akimaro Kawahara (Kumamoto Univ)
- C142 Void fraction in gas-liquid two-phase slug flow in micro tubes (Application of the Drift-Flux model)
○Hisato Minagawa (The Univ. Shiga Prefecture), Hiroaki Asama ([Kyoto Inst. Tech.](#)), Takahiro Yasuda (The Univ. Shiga Prefecture)
- C143 Effects of the tube diameters on the flow phenomena of the gas-liquid two-phase flow in microchannels
○Masanori Ide (Kagoshima Univ.), Tubasa Kageyama (Kagoshima Univ.), Hideo Ide (Kagoshima Univ.)
- C144 Single-phase and two-phase pressure drops across sudden contraction in rectangular microchannels
Akimaro Kawahara (Kumamoto Univ.), Michio Sadatomi (Kumamoto Univ.), Hiroki Kurihara (Kumamoto

Univ.), Haslinda Kusumaningsih (Kumamoto Univ.)

- C145 Flow boiling heat transfer characteristics of micro-mini rectangular flow channels
○Koji Ohira (Shinshu Univ.), Yasuo Koizumi (Shinshu Univ.)

Room D (Lecture Building, 1F Lecture Room #103)

Organized Session OS-10 : Modeling and Simulation of Particulate Multiphase Flow

Organizer : Tositsugu TANAKA (Osaka Univ.), Shusaku HARADA (Hokkaido Univ.), Tomomi UCHIYAMA (Nagoya Univ.), Masahiro TAKEI (Chiba Univ.), Mikio SAKAI (Univ. of Tokyo)

- OS-10 Modeling and Simulation of Particulate Multiphase Flow (1) 8:50~10:10
Chair : Tositsugu TANAKA (Osaka Univ.)
- D111 The application of the Discrete Element Method to industrial powder systems by the SDF model
○Yusuke Shigeto (Univ. of Tokyo), Mikio Sakai (Univ. of Tokyo)
- D112 Visualization of sand motion under a single wheel by using PEPT
○Kenya Kuwagi (Okayama Univ. of Science), Tetsuya Kinugasa (Okayama Univ. of Science), Thomas W. Leadbeater (Univ. of Birmingham), Joseph Gargiuli (Univ. of Birmingham), David J. Parker (Univ. of Birmingham), Jonathan P. K. Seville (Univ. of Surrey)
- D113 Real-time Visualization of Particle Distribution Behaviors in Circulating Fluidized Bed under Swing Motion
Tong Zhao (Xi'an Univ. of Technology·Chiba Univ.), Masahiro Takei (Chiba Univ.)
- D114 Dispersion and discharge characteristics of ceramic fine particle using vibrated fluidization
○Koichiro Ogata (Oita College of Tech.), Tomohumi Takahashi (Oita College of Tech.), Hideo Kawahara (Kurume College of Tech.), Eiji Mitani (SSC), Koji Mitani (SSC)
- OS-10 Modeling and Simulation of Particulate Multiphase Flow (2) 10:30~11:50
Chair : Toshihiro KAWAGUCHI(Kansai Univ.)
- D121 The added mass of three-dimensional basic bodies in viscous fluid
Tomoya Kitamoto (Doshisha Univ), Hirochika Tanigawa (Maizuru National College of Technology), Hideki Shimohara (Doshisha International High School), Katsuya Hirata (Doshisha Univ)
- D122 Numerical simulation of a fluidized bed involving the liquid bridge force
○Yuki Ishuda (Univ. of Tokyo), Mikio Sakai (Univ. of Tokyo)
- D123 Visualization measurement of pulsating flow in the particle packed bed by using electrical resistance tomography
○Takeshi Eda (Chiba Univ.), Achuyt Sapkota (Chiba Univ.) Jun Haruta (Ube Ind.), Masayuki Nishio (Ube Ind.), Masahiro Takei (Chiba Univ.)
- D124 Numerical study on the evaluation of apparent slurry viscosity due to the particle size
○Masatoshi Sakai (Univ. of Tokyo), Mikio Sakai (Univ. of Tokyo)
- OS-10 Modeling and Simulation of Particulate Multiphase Flow (3) 13:10~14:30
Chair : Mikio SAKAI (Univ. of Tokyo)
- D131 Dependency of relative position between solid interface and orthogonal grid for body-force type

immersed boundary method

○Hirotsugu Iwasaki (Osaka Univ.), Tomoya Wakamatsu (Osaka Univ.), Takuya Tsuji (Osaka Univ.), Toshitsugu Tanaka (Osaka Univ.)

D132 Effective viscosity of inhomogeneous suspensions

○Takahisa Shiratori (Hokkaido Univ.), Ichiro Kumagai (Meisei Univ), Yuichi Murai (Hokkaido Univ.), Peter Fischer (ETH Zurich)

D133 Non-invasive measurement of concentration field on mass transfer in particulate bed

○Ryoko Otomo (Kansai Univ.), Taiki Tanikoshi (Hokkaido Univ.), Nobuhiko Ishii (Hokkaido Univ.), Shusaku Harada (Hokkaido Univ.)

D134 Analysis of solid-liquid flow by mesoscopic MPS-DEM coupling model

○Ryota Nagaya (Osaka Univ.), Toshitsugu Tanaka (Osaka Univ.), Toshihiro Kawaguchi (Kansai Univ.), Takuya Tsuji (Osaka Univ.), Kimiaki Washino (Osaka Univ.)

OS-10 Modeling and Simulation of Particulate Multiphase Flow (4) 14:50~15:50

Chair : Masahiro TAKEI (Chiba Univ.)

D141 Effect of domain size on velocity fluctuations of settling particles at finite Reynolds number

○Ali Abbas Zaidi (Osaka Univ.), Takuya Tsuji (Osaka Univ.), Toshitsugu Tanaka (Osaka Univ.)

D142 Large-scale simulation of gas-liquid-solid multiphase flow on GPU cluster

○Naoyuki Onodera (Tokyo Inst. Tech.), Takayuki Aoki (Tokyo Inst. Tech.)

D143 Motion of a large object in bubbling fluidized bed

○Yoshitomo Okuyama (Osaka Univ.), Kyohei Higashida (Osaka Univ.), Takuya Tsuji (Osaka Univ.), Toshitsugu Tanaka (Osaka Univ.)

Room E (Lecture Building, 2F Lecture Room #201)

Organized Session OS-12 : Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change

Organizer : Hiroyasu OTAKE (Kogakuin Univ.) , Yoshiro TOCHITANI (Kanazawa Inst. of Tech.) , Jiro NAGAI (Fukui Univ.)

OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (1) 8:50~10:10

Chair : Takeyuki AMI (Kansai Univ.),

E111 Investigation on formation of ice trapping ozone micro-bubbles for cold storage of foods (Investigation on holding time of ozone)

○Koji Furuya (Chuo Univ.), Koji Matsumoto (Chuo Univ.), Yoshikazu Teraoka (Kanazawa Univ.), Daisuke Shirai (Chuo Univ.), Masato Honda (Chuo Univ.), Takahiro Ikeya (Chuo Univ.)

E112 Pressure-drop reduction and heat-transfer deterioration of slush nitrogen flow in a horizontal triangular pipe

○Katsuhide Ohira (Tohoku Univ.), Jun Okuyama (Tohoku Univ.), Koichi Takahashi (Tohoku Univ.)

E113 High-speed gas-liquid two-phase nozzle flow for carbon dioxide (cases of preferable and increasing pressure characteristics)

○Yoichi Kinoue (Saga Univ.), Wakana Tsuru (Saga Univ.), Norimasa Shiomi (Saga Univ.), Toshiaki

- Setoguchi (Saga Univ.)
- E114 Development of multidimensional high-speed measurement method of void fraction and phasic velocity for boiling water flow in rod bundle
 ○Takahiro Arai (CRIEPI), Masahiro Furuya (CRIEPI), Taizo Kanai (CRIEPI), Kenetsu Shirakawa (CRIEPI)
- OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (2) 10:30~11:50
 Chair : Koji MATSUMOTO (Chuo Univ.)
- E121 Development of Numerical Method for Fuel Rod Melting ((1) [Experimental Observation](#))
 ○Masahiro Furuya (CRIEPI), Taku Nagatake (JAEA), Kazuyuki Takase (JAEA), Hiroyuki Yoshida (JAEA), Fumihisa Nagase (JAEA)
- E122 Development of Numerical Method for Fuel Rod Melting ((2) [Numerical Analysis Based on Melting Experiment](#))
 ○Taku Nagatake (JAEA), Kazuyuki Takase (JAEA), Masahiro Furuya (CRIEPI), Hiroyuki Yoshida (JAEA), Fumihisa Nagase (JAEA)
- E123 Physics of nematic-isotropic phase interface and its application to micro-manipulator
 ○Kazumasa Kamei (Graduate School of Kochi Univ.tech.), Tomohiro Tsuji (Kochi Univ.Tech.), Shigeomi Chono (Kochi Univ.Tech.)
- E124 Computations of Solidification of a Compound Drop
 ○Truong V. Vu (Ritsumeikan Uni.), G. Tryggvason (Uni. of Notre Dame), S. Homma (Saitama Uni.), John C. Wells (Ritsumeikan Uni.), H. Takakura (Ritsumeikan Uni.)
- OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (3) 13:10~14:30
 Chair : Hiroyasu OTAKE (Kogakuin Univ.)
- E131 Effect of surface wettability on subcooled boiling heat transfer
 ○Kazuki Hase (Kyoto Univ), Daiki Nishi (Kyoto Univ), Daisuke Ito (Kyoto Univ), Yasushi Saito (Kyoto Univ)
- E132 Molecular Dynamics Study on Nucleation-growth Process of Bubbles under High Temperature Field
 ○Ryota Tanaka (Shinshu Univ.), Shinichi Tsuda (Shinshu Univ.)
- E133 Effect of a coalesced bubble on the CHF enhancement using a honeycomb porous plate in a saturated pool boiling
 Naru Maruoka (Yokohama National Univ.), Shoji Mori (Yokohama National Univ.), Kunito Okuyama (Yokohama National Univ.)
- E134 Influence of the flow pattern on critical heat flux
 ○Goshi Yamashina (Kansai Univ.), Noriko Nakamura (Kansai Univ.), Takeyuki Ami (Kansai Univ.), Hisashi Umekawa (Kansai Univ.), Mamoru Ozawa (Kansai Univ.)
- OS-12 Heat Transfer and Fluid Dynamics of Multiphase Flow with Phase Change (4) 14:50~15:50
 Chair : Shoji MORI (Yokohama National Univ.)
- E141 Numerical analysis on heat transport characteristics of self-oscillating heat pipe using phase-change VOF method
 ○Hajime Onishi (Kanazawa Univ.), Motoya Kawamura (Kanazawa Univ.), Yukio Tada (Kanazawa Univ.),

Akira Takimoto (Kanazawa Univ.)

- E142 Study on convective heat transfer from hot water to cold air flow with evaporation (2nd Report)
○Tatsuya Yamaji (Shinshu Univ.), Yasuo Koizumi (Shinshu Univ.), Tatsuya Hirota (Sinfonia Technology Co., Ltd.), Mitio Murase (INSS)
- E143 Study on controlling condensation heat transfer by using functionalized heat transfer surface
○Syota Yoshizawa (Shinshu Univ.), Yasuo Koizumi (Shinshu Univ.)

Room F (Lecture Building, 2F Lecture Room #200)

Organized Session OS-13 : Science of Micro/Nano Bubbles and Technological Application

Organizer : Shozo HIMURO (Ariake National College of Tech.) , Hideaki SHAKUTSUI (Kobe City College of Tech.) , Koichi TERASAKA (Keio Univ.) , Hisato MINAGAWA (Univ. Shiga Pref.) , Shigeo HOSOKAWA (Kobe Univ.)

- OS-13 Science of Micro/Nano Bubbles and Technological Application (1) 8:50~10:10
Chair : Shozo HIMURO (Ariake National College of Tech.)
- F111 Effect of shape of constriction on chemical reaction by hydrodynamic cavitation
○Toa Kaji (Nagoya Univ.), Keiji Yasuda (Nagoya Univ.)
- F112 Behavior of gas hydrate formation by using microbubbles
○Daisuke Ako (Nagoya Univ.), Keiji Yasuda (Nagoya Univ.)
- F113 Study on supersonic nozzle flow with micro bubble
○Kentarō Nakamura (Univ. of Tsukuba), Hayato Tajima (Univ. of Tsukuba), Hideaki Monji (Univ. of Tsukuba)
- F114 Time-evolution of micro-bubbles generated by a pressurized dissolution method
○Shudai Fujimoto (Kobe Univ), Kazuya Ishii (Kobe Univ), Shigeo Hosokawa (Kobe Univ), Akio Tomiyama (Kobe Univ), Yoshihiro Ito (Panasonic), Yasunari Maeda (Panasonic)
- OS-13 Science of Micro/Nano Bubbles and Technological Application (2) 10:30~11:50
Chair : Shigeo HOSOKAWA (Kobe Univ.)
- F121 Washing effect of nanobubble mixtures in a laundry cleaning
○Akiomi Ushida (Niigata Univ.), Naoyuki Takahashi (Niigata Univ.), Keiko Amaki (Iwate Univ.), Toshiyuki Nakajima (TECH Corp.), Tomiichi Hasegawa (Niigata Univ.), Takatsune Narumi (Niigata Univ.)
- F122 Removal effectiveness of micro-bubbles for calcium carbonate precipitated in dialysate
Kaori Yamashita (Okayama Univ. of Sci.), Takayuki Miyake (Okayama Univ. of Sci.), Jun'ya Hori (Okayama Univ. of Sci.)
- F123 Flotation of emulsion in water by using microbubbles
○Yukihiro Goto (Nagoya Univ.), Keiji Yasuda (Nagoya Univ.)
- F124 Flotation thickening characteristics of activated sludge under reduced pressure
○Koji Sakai (Kobe City College of Tech.), Daiki Miyaake (Glory LTD.), Toshiki Komune (Takuma Co.Ltd.), Masakazu Sawai (Technoplan Co.Ltd.), Takayuki Suzuki (Kobe City College of Tech.), Hideaki Shakutsui (Kobe City College of Tech.)

- OS-13 Science of Micro/Nano Bubbles and Technological Application (3) 13:10~14:30
Chair : Hisato MINAGAWA (Univ. Shiga Pref.)
- F131 Effects of microbubbles on bacteria
○Shozo Himuro (Ariake NCT)
- F132 Fleshness enhancing of the cut flowers by using water containing fine bubbles
○Yoshikatsu Ueda (Kyoto Univ.), Yomei Tokuda (Kyoto Univ.), Yutaka Yajima (Fukushima Agricultural Technology Centre)
- F133 Microbubble shrinkage behavior for different containing gases
○Keisuke Yamamoto (Akita Univ.), Hiroaki Hasegawa (Akita Univ.)
- F134 Acoustic streaming of liquid with bubbles formed in a cylindrical pipe (simultaneous measurements of gas-liquid and solid liquid velocities)
Syohei Iwamoto (Fukui Univ.), ○Yuki Fujii (Fukui Univ.), Kiyotaka Miura (Fukui Univ.), Junichi Ohta (Fukui Univ.)
- OS-13 Science of Micro/Nano Bubbles and Technological Application (4) 14:50~15:50
Chair : Hideaki SHAKUTSUI (Kobe City College of Tech.)
- F141 [Subharmonics generation affected by nonlinear interaction between two microbubbles](#)
○Shoma Kanazawa (Keio Univ.), Akira Tsuruoka (Keio Univ.), Toshihiko Sugiura (Keio Univ.)
- F142 Nonlinear oscillation analysis of an insonified microbubble simulated by C-CUP method
○Keita Omiya (Keio Univ.), Hiroki Kubo (Keio Univ.), Toshihiko Sugiura (Keio Univ.)
- F143 The analysis for the brownian motion of nano bubble by molecular dynamics
○Takashi Abe (Tokyo Inst. Tech.), Tatsuya Kawaguchi (Tokyo Inst. Tech.), Saito Takushi (Tokyo Inst. Tech.), Isao Satoh (Tokyo Inst. Tech.)

Saturday, August 10, 2013

Room A (Lecture Building, 1F Lecture Room #100)

Organized Session OS-3 : Mass Transport and Water Treatment

Organizer : Katsumi TSUCHIYA (Doshisha Univ.), Shigeo HOSOKAWA (Kobe Univ.), Akiko KANEKO(Univ. of Tsukuba)

- OS-3 Mass Transport and Water Treatment (2) 8:50~10:10
Chair : Shigeo HOSOKAWA (Kobe Univ.)
- A211 Quantitative consideration of large scale flow structures in bubbly flows
○Daisuke Shinohara (Shizuoka Univ.), Takayuki Saito (Shizuoka Univ.)
- A212 Pressure wave propagation with bubble breakup phenomena in a venturi tube
○Shin-ichiro Uesawa (Univ. of Tsukuba), Akiko Kaneko (Univ. of Tsukuba), Naoya Tamura (Univ. of Tsukuba), Yosuke Nakabayashi (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba)
- A213 Fundamentals of bubble generation by negative pressure above rotating hydrofoils
○Ichiro Kumagai (Meisei Univ.), Keiya Sato (Hokkaido Univ.), Yuji Tasaka (Hokkaido Univ.), Yuichi Murai (Hokkaido Univ.)
- A214 Application of a venturi type microbubble generator to gas processing system
○Yosuke Nakabayashi (Univ. of Tsukuba), Akiko Kaneko (Univ. of Tsukuba), Shin-ichiro Uesawa (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba)
- OS-3 Mass Transport and Water Treatment (3) 10:30~11:50
Chair : Katsumi TSUCHIYA (Doshisha Univ.)
- A221 Study on effects of liquid viscosity on flows inside and outside an air diffuser pipe
○Kosuke Hayashi (Kobe Univ.), Tomoyuki Sampei (Kobe Univ.), Akio Tomiyama (Kobe Univ.), Shinsuke Furuno (Mitsubishi Rayon Co., Ltd.), Fumihiko Kira (Mitsubishi Rayon Co., Ltd.)
- A222 Development of the non-chemical micro-bubble washing technology using a venturi tube
Naoya Tamura (Univ. of Tsukuba), Akiko Kaneko (Univ. of Tsukuba), Shin-ichiro Uesawa (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba), Masatoshi Ike (Apptex LLC)
- A223 Influence of the water level to collection of volatile organic compounds in water by impinger
○Hitoshi Kida (Tokyo Univ of Agriculture and Technology), Masaharu Kameda(Tokyo Univ of Agriculture and Technology)
- A224 Generation of streamer discharged bubble jet and treatment of persistent organic compound
○Shohei Shinoki (Tohoku Univ.), Kei Niinuma (Formerly, Tohoku Univ.), Hidemasa Takana (IFS, Tohoku Univ.), Hideya Nishiyama (IFS, Tohoku Univ.)

Room B (Lecture Building, 1F Lecture Room #101)

General Session GS-3 & GS-6 : Numerical Analysis of Multiphase Flow & Nuclear Power, Thermal Power, and Environment

Organizer : Shinichi TSUDA (Shinshu Univ.)

GS-3/6 Numerical Analysis of Multiphase Flow (1) 8:30~10:10

Chair : Hiroshi TERASHIMA (Univ. of Tokyo)

- B211 Numerical simulation of a single bubble collapse
 - Tomoki Matsuo (Toyo Univ.), Yoshiaki Tamura (Toyo Univ.)
- B212 Quantitative evaluation of the pool boiling simulation using DIM and Microlayer Model
 - Kenta Yagi (Mie Univ), Koichi Tsujimoto (Mie Univ), Yousuke Akatsuka (Mie Univ), Toshihiko Shakouchi (Mie Univ), Toshitake Ando (Mie Univ)
- B213 Numerical simulation of droplet using DIM and IB method
 - Kenichi Sakai (Mie Univ), Koichi Tsujimoto (Mie Univ), Toshihiko Shakouchi (Mie Univ), Toshitake Ando (Mie Univ)
- B214 Fundamental study of interface tracking and surface tension model in VOF-MPS hybrid method
 - Toshihiro Kawakami (Univ. of Tokyo), Tatsuya Yoshimoto (Univ. of Tokyo), Yuki Ishiwatari (Univ. of Tokyo)
- B215 Numerical simulation and dynamic visualization of oil-water multiphase flow in various geometries of liquid-liquid centrifugal extractors
 - Masahiko Nakase (Tokyo Inst. Tech.), Kenji Takeshita (Tokyo Inst. Tech.)

Jointly Organized Session OS-2 & OS-4 : Numerical Analysis of Structures on Mesoscopic Scale & Wettability and Multiphase Flow

Organizer (OS-2) : Naoki TAKADA (AIST), Masato YOSHINO (Shinshu Univ.), Takeshi SETA (Univ.of Toyama)

Organizer (OS-4) : Kenji KATO (Osaka City Univ.) , Manabu IGUCHI (Hokkaido Univ.) , Yasufumi YAMAMOTO (Kansai Univ.), Tatsuya HAZUKU (Tokyo Univ. Marine Sci. Tech), Takahiro ITO (Nagoya Univ.)

OS-2/4 Wettability and Multiphase Flow (1) 10:30~11:50

Chair : Yasufumi YAMAMOTO (Kansai Univ.)

- B221 A new method to actuate a droplet on a plate by use of laser irradiation to improve wettability
 - Kenji Kato (Osaka City Univ.), Yuzo Sato (Osaka City Univ.), Tatsuro Wakimoto (Osaka City Univ.)
- B222 Effect of ultraviolet and radiation on surface wettability
 - Daisuke Ito (KURRI), Daiki Nishi (Kyoto Univ.), Kazuki Hase (Kyoto Univ.), Yasushi Saito (KURRI)
- B223 Frictional analysis of PVA roll brush
 - Yoshitaka Hara (Shizuoka Univ.), Toshiyuki Sanada (Shizuoka Univ.), Akira Fukunaga (Ebara Corp.), Hirokuni Hiyama (Ebara Corp.)
- B224 Optically induced thermocapillarity with light interference in thin liquid films
 - Fumihiko Saeki (Tottori Univ.), Shigehisa Fukui (Tottori Univ.), Hiroshige Matsuoka (Tottori Univ.)

Room C (Lecture Building, 1F Lecture Room #102)

Organized Session OS-15 : Multiphase Flow of Micro and Mini Scale

Organizer : Masahiro TAKEI (Chiba Univ.), Akimaro KAWAHARA (Kumamoto Univ.), Hideo IDE (Kagoshima Univ.), Naoki ICHIKAWA (AIST)

- OS-15 Multiphase Flow of Micro and Mini Scale (2) 8:30~10:10
Chair : Hisato MINAGAWA (Univ. Shiga Pref.)
- C211 Flow properties of mixed nanobubble surfactant solutions passing through micro-orifices
○Akiomi Ushida (Niigata Univ.), Tomiichi Hasegawa (Niigata Univ.), Takatsune Narumi (Niigata Univ.), Toshiyuki Nakajima (TECH Corp.)
- C212 Effects of flow rate on formation behavior of two-phase slug flow in a microchannel T-junction
○Youmi Miki (Univ. of Tsukuba), Sohei Matsumoto (AIST), Naoki Takada (AIST), Akiko Kaneko (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba)
- C213 Effects of the wetting property of the tube wall on the frictional pressure drop of gas-liquid two-phase flow in microchannels
Ryuji Uchimura (Kagoshima Univ.), Koudai Hayashida (Kagoshima Univ.), Hideo Ide (Kagoshima Univ.)
- C214 Interfacial area transport of vertical downward bubbly flow in mini pipes
○Shota Take (Tokyo Univ. Marine Sci. and Tech.), Tomohito Fukazawa (Tokyo Univ. Marine Sci. and Tech.), Tatsuya Hazuku (Tokyo Univ. Marine Sci. and Tech.), Yutaka Fukuhara (Tokyo Univ. Marine Sci. and Tech.), Tomoji Takamasa (Tokyo Univ. Marine Sci. and Tech.)
- C215 Measurement of Cross-sectional Particle Concentration in a Microchannel with Multi-layer Capacitance Electrodes
○Nur Tantiyani Ali Othman (Chiba Univ.), Hiromichi Obara (Tokyo Metropolitan Univ.), and Masahiro Takei (Chiba Univ.)

Organized Session OS-5 : Flow and Control of Multiphase Jet and Wake

Organizer : Tomomi UCHIYAMA (Nagoya Univ.), Toshihiko SHAKOUCI (Mie Univ.), Hitoshi SOYAMA (Tohoku Univ.), Akimaro KAWAHARA (Kumamoto Univ.)

- OS-5 Flow and Control of Multiphase Jet and Wake (1) 10:30~11:50
Chair : Tomomi UCHIYAMA (Nagoya Univ.)
- C221 **【Keynote】**Development of Eco-Hydraulic Turbines
○Shouichiro Iio (Shinshu Univ.), Toshihiko Ikeda (Shinshu Univ.)
- C222 Study on flow direction control method applied to waterfall type runner
○Kaika Kimoto (Shinshu Univ.), Yusuke Katayama (Shinshu Univ.), Shouichiro Iio (Shinshu Univ.), Toshihiko Ikeda (Shinshu Univ.)
- C223 Development of open type cross-flow runner for rapid and shallow stream (Investigation of setting condition)
○Kaika Kimoto (Shinshu Univ.), Yusuke Katayama (Shinshu Univ.), Shouichiro Iio (Shinshu Univ.), Toshihiko Ikeda (Shinshu Univ.)
- C224 Current status and future prospects of nano-hydropower generation by waterfall type turbine
○Kaika Kimoto (Shinshu Univ.), Yusuke Katayama (Shinshu Univ.), Shouichiro Iio (Shinshu Univ.), Toshihiko Ikeda (Shinshu Univ.)

Organized Session OS-7 : Optical or Ultrasonical **Measurement** and Control, and their Applications
Organizer : Yuichi MURAI (Hokkaido Univ.), Kotaro SATO (Kogakuin Univ.), Masaaki ISHIKAWA (Univ. of the Ryukyus), Hiroshige KIKURA (Tokyo Inst. Tech.), Koji OKAMOTO (Tokyo Univ.)

- OS-7 Optical or Ultrasonical **Measurement** and Control, and their Applications (1) 8:30~10:10
Chair : Koji OKAMOTO (Univ. of Tokyo)
- D211 Multi-dimensional visualization of fluid flow by light field camera
○Tatsuya Kawaguchi (Tokyo Inst. Tech.)
- D212 Cross-sectional dispersion characteristics of particles piled in a horizontal pipe
○Norio Yonezawa (Hokkaido Univ.), Yoshihiko Oishi (Hokkaido Univ.), Yuji Tasaka (Hokkaido Univ.), Yuichi Murai (Hokkaido Univ.), Tomoaki Takeuchi (Tokyo gas)
- D213 Measurement of a wavy liquid film thickness by using an optical fiber probe
○Hajime Furuichi (Shizuoka Univ.), Akihiro Sakamoto (Shizuoka Univ.), Takayuki Saito (Shizuoka Univ.)
- D214 Effective viscosity measurements of particle / bubble suspensions by UVP spin rheometry
○Takufumi Kimura (Hokkaido Univ.), Takahisa Shiratori (Hokkaido Univ.), Yoshihiko Oishi (Hokkaido Univ.), Ichiro Kumagai (Meisei Univ.), Yuji Tasaka (Hokkaido Univ.), Yuichi Murai (Hokkaido Univ.)
- D215 Improvement of wire-mesh tomography for boiling bubble measurement
○Yu Adachi (Kyoto Univ.), Daisuke Ito (KURRI), Yasushi Saito (KURRI)
- OS-7 Optical or Ultrasonical **Measurement** and Control, and their Applications (2) 10:30~11:50
Chair : Hiroshige KIKURA (Tokyo Inst. Tech.)
- D221 Visualization and image measurement on micro-bubble flow inside cylinder driven by a rotating disk
○Masaaki Ishikawa (Univ. of the Ryukyus), Akira Okawa (Univ. of the Ryukyus), Kazuki Hamamoto (Univ. of the Ryukyus)
- D222 Turbulent spectral modification in a horizontal mixing-layer due to introducing microbubbles
○Tomoaki Watamura (Hokkaido Univ.), Yuji Tasaka (Hokkaido Univ.), Yuichi Murai (Hokkaido Univ.)
- D223 Flow and heat transfer characteristics of bubbly flows along an inclined heated plate
○Takuya Ozato (Kyoto Inst. Tech.), Tatsuaki Oku (Kyoto Inst. Tech.), Atsuhide Kitagawa (Kyoto Inst. Tech.), Yuichi Murai (Hokkaido Univ.)
- D224 Heat Transfer and Flow Behavior under Phase Change Process of an Acoustically Levitated Droplet
○Kuniharu Shitanishi (Univ. of Tsukuba), Koji Hasegawa (Kogakuin Univ.), Akiko Kaneko (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba)

Room E (Lecture Building, 2F Lecture Room #201)

Organized Session OS-9 : Multiphase Flow in Natural Phenomena
Organizer : Koji KAWASAKI (Nagoya Univ.)

- OS-9 Multiphase Flow in Natural Phenomena (1) 8:30~10:10
Chair : Koji KAWASAKI (Nagoya Univ.)
- E211 DEM-MPS method for formation process of debris fan
Naoki Tsuruta (Kyoto Univ.), Hitoshi Gotoh (Kyoto Univ.), Eiji Harada (Kyoto Univ.), ○Hiroki Kubota (Kyoto

- Univ.)
- E212 A proposal of Dynamic Stabilization for multiphase simulations by DEM-MPS method
 ○Naoki Tsuruta (Kyoto Univ.), Hitoshi Gotoh (Kyoto Univ.), Abbas Khayyer (Kyoto Univ.)
- E213 TSUNAMI damage simulation of a highway bridge
 ○Tetsuya Nonaka (EERC Inc.), Koichi Sugatsuke (EERC Inc.), Hideki Motohashi (EERC Inc.)
- E214 Effect of air compression in wave pressure acting on underside of bridge
 ○Susumu Araki (Osaka Univ.)
- E215 Effectiveness of mooring cables against tsunami-induced overturning of caisson
 ○Tomoaki Nakamura (Nagoya Univ.), Kohei Ando (West JR Co.), Norimi Mizutani (Nagoya Univ.), Yasuo Kotake (Toyo Construction Co., Ltd.)
- OS-9 Multiphase Flow in Natural Phenomena (2) 10:30~11:50
 Chair : Susumu ARAKI (Osaka Univ.)
- E221 Evaluation method of tsunami wave pressure using depth-integrated flow simulation with structure model
 ○Tsuyoshi Arimitsu (Kansai Electric Power), Kazuya Ooe (Kansai Electric Power), Koji Kawasaki (Nagoya Univ.)
- E222 Numerical Analysis of Collision between Bore Induced by Dam-Break and Structure Using OpenFOAM
 ○Koji Kawasaki (Nagoya Univ.), Sho Matsuura (Nagoya Univ.), Taiki Sakatani (Nagoya Univ.)
- E223 Numerical analysis of run-up bore using CIP method
 ○Kazuki Suzuki (Nagoya Univ.), Koji Kawasaki (Nagoya Univ.), Yuki Takasugi (Nagoya Univ.), Yohei Nishiura (Nagoya Univ.)
- E224 [Canceled](#)

Room F (Lecture Building, 2F Lecture Room #200)

Organized Session OS-11 : Dynamics of Multiphase Flow

Organizer : Masao WATANABE (Hokkaido Univ.), Toshiyuki SANADA (Shizuoka Univ)

- OS-11 Dynamics of Multiphase Flow (1) 8:30~10:10
 Chair : Toshiyuki SANADA (Shizuoka Univ)
- F211 Control of droplet generation with airflow and capillary tube
 ○Jun Tachibana (Shizuoka Univ.), Toshiyuki Sanada (Shizuoka Univ.)
- F212 Influence of the Laplace term on two-phase pressure drop
 ○Ken Yamamoto (Tokyo Metropolitan Univ.), Satoshi Ogata (Tokyo Metropolitan Univ.)
- F213 Size dependence on transition to oscillatory marangoni convection in liquid bridge
 ○Kohei Omura (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba), Akiko Kaneko (Univ. of Tsukuba), Satoshi Matsumoto (JAXA)
- F214 Injection into soft materials with highly focused high-speed microjets
 ○Yoshiyuki Tagawa (Tokyo Univ. Agriculture and Technology), Nikolai Oudalov (Univ. Twente), A. El Ghalbzouri (Leiden Univ. Medical Center), Chao Sun (Univ. Twente), Detlef Lohse (Univ. Twente)

- F215 Observation of formation process of splash generated from droplet impact on solid surface
○Hiroki Nishizawa (Hokkaido Univ.), Masaya Kato (Hokkaido Univ.), Ryoichi Uemura (Hokkaido Univ.), Kazumichi Kobayashi (Hokkaido Univ.), Masao Watanabe (Hokkaido Univ.), Toshiyuki Sanada (Shizuoka Univ.)
- OS-11 Dynamics of Multiphase Flow (2) 10:30~11:50
Chair : Yoshiyuki TAGAWA (Tokyo Univ. Agriculture and Technology)
- F221 Control of single bubble formation with acoustic wave and elastic tube
○Kimihiko Abe (Shizuoka Univ.), Toshiyuki Sanada (Shizuoka Univ.)
- F222 Measurements and numerical predictions of void fraction and liquid velocity distributions in a bubble column
○Shimpei Ojima (Kobe Univ.), Ikumi Mikiyama (Kobe Univ.), Shigeo Hosokawa (Kobe Univ.), Akio Tomiyama (Kobe Univ.)
- F223 Mixing of liquid by a rising bubble with zigzag or spiral motion
Satoshi Dozono (Kyushu Univ.), Toru Koso (Kyushu Univ.), Takafumi Tanaka (Kyushu Univ.)
- F224 The effect of the amount of polymer on the motion of a bubble rising in hydrophobically modified alkali-soluble associative polymer solutions
○Mitsuhiro Ohta (Univ. of Tokushima), Naoto Kobayashi (Muroran Inst. of Tech.), Yuichi Ohira (Muroran Inst. of Tech.), Eiji Obata (Muroran Inst. of Tech.), Shuichi Iwata (Nagoya Inst. of Tech.)

Sunday, August 11, 2013

Room A (Lecture Building, 1F Lecture Room #100)

Organized Session OS-14 : Multiphase Flow Technology and Application in Nuclear Engineering

Organizer : Michitsugu MORI (Hokkaido Univ.) , Shinichi MOROOKA (Waseda Univ.) , Tetsuaki TAKEDA (Yamanashi Univ.) , Toru NAKATSUKA (JAEA)

OS-14 Multiphase Flow Technology and Application in Nuclear Engineering (1) 8:50~10:10

Chair : Shuichiro MIWA (Hokkaido Univ.)

A311 Numerical simulation of void fraction in a rod bundle under stagnant liquid condition

○Chihiro Yanagi (INSS), Michio Murase (INSS), Takashi Takata (Osaka Univ.), Akira Yamaguchi (Osaka Univ.), Akio Tomiyama (Kobe Univ.)

A312 Evaluation of void fraction in a rod bundle under high-temperature stagnant liquid condition

○Michio Murase (INSS), Chihiro Yanagi (INSS), Takashi Takata (Osaka Univ.), Akira Yamaguchi (Osaka Univ.), Akio Tomiyama (Kobe Univ.)

A313 Effects of grid spacer with mixing-vane on two-phase annular flows in simplified BWR center subchannel

○Yuta Shimoharai (Kumamoto Univ), Shogo Imamura (Kumamoto Univ), Akimaro Kawahara (Kumamoto Univ), Michio Sadatomi (Kumamoto Univ)

A314 Study on flow characteristics of gas-liquid two-phase flow in a large diameter square duct

○[Xiuzhong](#) Shen (Kyoto Univ.), Takashi Hibiki (Purdue Univ.), Hideo Nakamura (JAEA)

OS-14 Multiphase Flow Technology and Application in Nuclear Engineering (2) 10:30~11:50

Chair : Michio MURASE (INSS)

A321 Observation of gas entrainment from free surface by vortex and measurement of entrained gas flow rate

○Naosuke Ohte (Shinshu Univ.), Yasuo Koizumi (Shinshu Univ.), Kamide Hideki (JAEA), Shuji Ohno (JAEA), Kei Ito (JAEA)

A322 Applicability evaluation of electrical resistance tomography using electrodes inserted from the top of the rectangular vessel

○Noriaki Ichijo (IHI), Shinsuke Matsuno (IHI), Taiji Sakai (IHI), Yoshikatsu Tochigi (IHI), So Nishiyama (Yokohama National Univ.), Ryuta Misumi (Yokohama National Univ.), Kazuhiko Nishi (Yokohama National Univ.), Meguru Kaminoyama (Yokohama National Univ.)

A323 Measurement of liquid droplet behavior in annular-mist flow

○Ryoji Matsue (Tokyo Univ. Marine Sci. and Tech.), Shota Take (Tokyo Univ. Marine Sci. and Tech.), Tatsuya Hazuku (Tokyo Univ. Marine Sci. and Tech.), Yutaka Fukuhara (Tokyo Univ. Marine Sci. and Tech.), Tomoji Takamasa (Tokyo Univ. Marine Sci. and Tech.)

A324 Development of interfacial area concentration measurement by using 4-sensor probe

○Yasushi Saito (Kyoto Univ.), Daisuke Ito (Kyoto Univ.), Gen Ariyoshi (Kyoto Univ.), Kaichiro Mishima

(INSS)

- OS-14 Multiphase Flow Technology and Application in Nuclear Engineering (3) 13:10~14:10
Chair : Yasushi SAITO (Kyoto Univ.)
- A331 Study on Flow Characteristics on Liquid Metal Jet in Vacuum((1) Measurement of fluctuation generated on Surface)
○Takuji Kanemura (JAEA), Hiroo Kondo (JAEA), Tomohiro Furukawa (JAEA), Yasushi Hirakawa (JAEA), Eiichi Wakai (JAEA)
- A332 Study on flow characteristics on liquid metal jet in vacuum((2) Measurement of flow-induced noise of Jet)
○H. Kondo (JAEA), T. Kanemura (JAEA), T. Furukawa (JAEA), Y. Hirakawa (JAEA), E. Wakai (JAEA)
- A333 Measurements of turbulence in a liquid-metal two-phase flow by using miniature electro-magnetic probe
○Gen Ariyoshi (Kyoto Univ.), Yugo Asai (Kyoto Univ.), Daisuke Ito (KURRI), Yasushi Saito (KURRI), Kaichirou Mishima (INSS)

Room B (Lecture Building, 1F Lecture Room #101)

Jointly Organized Session OS-2 & OS-4 : Numerical Analysis of Structures on Mesoscopic Scale & Wettability and Multiphase Flow

Organizer (OS-2) : Naoki TAKADA (AIST.), Masato YOSHINO (Shinshu Univ.), Takeshi SETA (Univ. of Toyama)

Organizer (OS-4) : Kenji KATO (Osaka City Univ.), Manabu IGUCHI (Hokkaido Univ.), Yasufumi YAMAMOTO (Kansai Univ.), Tatsuya HAZUKU (Tokyo Univ. Marine Sci. Tech), Takahiro ITO (Nagoya Univ.)

- OS-2/4 Wettability and Multiphase Flow (2) 8:50~10:10
Chair: Tatsuya HAZUKU (Tokyo Univ. Marine Sci. Tech)
- B311 Dynamic contact angle in the transient formation of the meniscus on a circular tube
○Takahiro Ito (Nagoya Univ.), Ryota Shimura (Toyohashi Univ. Tech.), Susumu Noda (Toyohashi Univ. Tech.), Yoshiyuki Tsuji (Nagoya Univ.), Kenji Kato (Osaka City Univ.), Yasufumi Yamamoto (Kansai Univ.), Tatsuro Wakimoto (Osaka City Univ.)
- B312 Measurement of the interface geometry near the contact line with color coating method
○Akira Omiya (Nagoya Univ.), Takahiro Ito (Nagoya Univ.), Yoshiyuki Tsuji (Nagoya Univ.), Eiichi Wakai (JAEA), Hiroo Kondo (JAEA), Kouji Fujishiro (JAEA)
- B313 Observation of triple phase contact line behavior passing over a wall defect
○Syuhei Taguchi (Osaka City Univ.), Tatsuro Wakimoto (Osaka City Univ.), Yasufumi Yamamoto (Kansai Univ.), Takahiro Ito (Nagoya Univ.), Kenji Kato (Osaka City Univ.)
- B314 Dynamic wetting behavior of liquid column in a capillary pipe
○Masashi Hiruta (Osaka City Univ.), Takahiro Ito (Nagoya Univ.), Tatsuro Wakimoto (Osaka City Univ.), Yasufumi Yamamoto (Kansai Univ.), Kenji Kato (Osaka City Univ.)
- OS-2/4 Numerical Analysis of Structures on Mesoscopic Scale (1) 10:30~11:50
Chair: Takeshi SETA (Univ. Toyama)
- B321 Numerical simulations of penetration of droplet on porous medium
○Yosuke Matsukuma (Fukuoka Univ.), Masaki Minemoto (Kyushu Univ.)

- B322 Numerical simulation study of a two-phase fluid slug formation in a microchannel T-junction
 ○Naoki Takada (AIST), Junichi Matsumoto (AIST), Sohei Matsumoto (AIST)
- B323 A preliminary study of numerical simulation of contact line motion
 ○Junya ONISHI (IIS, Univ. of Tokyo), Kenji Ono (AICS, RIKEN)
- B324 Numerical simulation of dynamic wetting of a drop on solid wall -Representation by generalized Navier boundary condition and macroscopic-microscopic angles' relation-
 ○Yasufumi Yamamoto (Kansai Univ.), Takahiro Ito (Nagoya Univ.), Tatsuro Wakimoto (Osaka City Univ.), Kenji Kato (Osaka City Univ.)

OS-2/4 Numerical Analysis of Structures on Mesoscopic Scale (2) 13:10~14:10
 Chair: Naoki TAKADA (AIST)

- B331 Accuracy analysis of the thermal lattice Boltzmann method with the source term
 ○Takeshi Seta (Univ. Toyama)
- B332 Development of numerical analysis method for boiling heat transfer evaluation
 ○Masato Fukuta (Toshiba Corp.), Yasushi Yamamoto (Toshiba Corp.)
- B333 High resolution numerical simulation of surface layer flow on ceramic sanitary ware
 ○Akio Ikebata (TOTO LTD.), Shinya Yoshida (TOTO LTD.), Feng Xiao (Tokyo Inst. Tech.)

Room C (Lecture Building, 1F Lecture Room #102)

Organized Session OS-5 : Frow and Control of Multiphase Jet and Wake

Organizer : Tomomi UCHIYAMA (Nagoya Univ.), Toshihiko SHAKOUCI (Mie Univ.), Hitoshi SOYAMA (Tohoku Univ.), Akimaro KAWAHARA (Kumamoto Univ)

OS-5 Frow and Control of Multiphase Jet and Wake (2) 8:50~10:10
 Chair : Akimaro KAWAHARA (Kumamoto Univ.)

- C311 Enhancement of Aggressive Intensity of Cavitating Jet by Using Cavitator
 ○Hitoshi Soyama (Tohoku Univ.), Satoshi Nishimura (Tohoku Univ.)
- C312 A study on two-dimensional velocity distribution in a spreading flow
 ○Chaochao Qian (Chuo Univ.), Koyu Nakamura (Shimizu Corp.), Tadashi Yamada (Chuo Univ.)
- C313 Large-eddy simulation of mixing under a supercritical pressure of a shear coaxial injector: effect of outer jet temperature
 ○Hiroshi Terashima (Univ. of Tokyo), Mitsuo Koshi (Univ. of Tokyo)
- C314 Cavity depth by impinging jet on liquid surface
 ○Kazuyuki Ueno (Iwate Univ.)

OS-5 Frow and Control of Multiphase Jet and Wake (3) 10:30~11:50
 Chair : Hitoshi SOYAMA (Tohoku Univ.)

- C321 Solid-phase velocity profiles in a turbulent mixing layer involving heavy small particles
 ○ Hisashi Mikami (Tokyo Inst. Tech.)
- C322 Pressure Fluctuation and Flow Accelerated [Corrosion](#) of Gas-Liquid Two-Phase Flow Passing Through

Orifice

- Toshihiko Shakouchi (Mie Univ.), Koichi Kinoshita (Mie Univ.), Mitsuo Kugimoto (Chubu Elec. Co.,Ltd.), Koichi Tsujimoto (Mie Univ.), Toshitake Ando (Mie Univ.)
- C323 Geometrical effects on spray performance of a twin-fluid atomizer and its capacity of CO₂ capture
 - Jiafeng Yao (Kumamoto Univ.), Shinji Furusawa (Kumamoto Univ.), Akimaro Kawahara (Kumamoto Uni.), Michio Sadatomi (Kumamoto Univ.)
- C324 Drag force acting on a sphere behind an obstacle
 - Shumpei Nozaki (Univ. of Tsukuba), Shuhei Ichikawa (Univ. of Tsukuba), Hideaki Monji (Univ. of Tsukuba)
- OS-5 Frow and Control of Multiphase Jet and Wake (4) 13:30~13:50
Chair : Toshihiko SHAKOUCHI (Mie Univ.)
- C331 Large-eddy simulation of a volcanic plume based on a multi-fluid approximation (Effects of subgrid-scale turbulent models on flow structures near a vent)
 - Hitoshi Suto (CRIEPI), Yasuo Hattori (CRIEPI), Kiyoshi Toshida (CRIEPI)
- C332 Numerical Analysis of Interaction between Solid Particles and a Vortex Pair near a Wall
Seiji Shimada (Nagoya Univ.), Tomomi Uchiyama (Nagoya Univ.)

Room D (Lecture Building, 1F Lecture Room #103)

Organized Session OS-7 : Optical or Ultrasonical [Measurement](#) and Control, and their Applications
Organizer : Yuichi MURAI (Hokkaido Univ.), Kotaro SATO (Kogakuin Univ.), Masaaki ISHIKAWA (Univ.of the Ryukyus), Hiroshige KIKURA (Tokyo Inst. Tech.), Koji OKAMOTO (Univ. of Tokyo)

- OS-7 Optical or Ultrasonical [Measurement](#) and Control, and their Applications (3) 8:50~10:10
Chair : Masaaki ISHIKAWA (Univ.of the Ryukyus)
- D311 Visual analysis of acoustic streaming generated by ultrasonic irradiation
 - Yuko Imamura (Doshisha Univ.), Kazuma Fujita (NICHIAS Corp.), Yasushige Mori (Doshisha Univ.), Katsumi Tsuchiya (Doshisha Univ.)
- D312 Experimental investigation of radial force on acoustically levitated droplet
 - Taku Furukawa (Kogakuin Univ.), Koji Hasegawa (Kogakuin Univ.), Hiroyasu Ohtake (Kogakuin Univ.), Kuniharu Shitanishi (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba)
- D313 Quantitative visualization of bubble clustering in horizontal turbulent channel flow
 - Yoshihiko Oishi (Hokkaido Univ.), Yukihito Tohge (Hokkaido Univ.), Shingo Fujino (Hokkaido Univ.), Yuji Tasaka (Hokkaido Univ.), Yuichi Murai (Hokkaido Univ.)
- D314 Large deformation response of a liquid droplet subject to oscillatory shear
 - Yuichi Murai (Hokkaido Univ.), Yoshihito Miyagishima (Hokkaido Univ.), Ichiro Kumagai (Meisei Univ.), Yoshihiko Oishi (Hokkaido Univ.), Yuji Tasaka (Hokkaido Univ.), Petr Denissenko (Univ. Warwick)
- OS-7 Optical or Ultrasonical [Measurement](#) and Control, and their Applications (4) 10:30~11:50
Chair : Yuichi MURAI (Hokkaido Univ.)

- D321 Occurrence condition of air entrainment into a vertical wet-pit pump
 ○Takuya Saida (Doshisha Univ.), Jiro Funaki (Doshisha Univ.), Katsuya Hirata (Doshisha Univ.)
- D322 Influence of obstacle on performance of axial flow fan
 ○Shinsaku Nakamura (Kogakuin Univ.), Masayuki Takahashi (Kogakuin Univ.), Kotaro Sato (Kogakuin Univ.), Kazuhiko Yokota (Aoyama Gakuin Univ.)
- D323 Study on synthetic jet thruster
 ○Takahiro Iwasaki (Kogakuin Univ.), Yuki Tanaka (Kogakuin Univ.), Koichi Nisibe (Chiyoda Corp.), Kotarou Sato (Kogakuin Univ.), Kazuhiko Yokota (Aoyama Univ.)
- D324 Control of Flow Instabilities in Swirl Flow Generator
 ○Takanori Nakazawa (Kogakuin Univ.), Masanori Kudo (Kogakuin Univ.), Masayuki Takahashi (Kogakuin Univ.), Kotaro Sato (Kogakuin Univ.)

Room E (Lecture Building, 2F Lecture Room #201)

Organized Session OS-9 : Multiphase Flow in Natural Phenomena

Organizer : Koji KAWASAKI (Nagoya Univ.)

- OS-9 Multiphase Flow in Natural Phenomena (3) 8:50~10:10
 Chair : Shinya SHIMOKAWA (NIED)
- E311 [Canceled](#)
- E312 A new differential equation related to mixing length with considering atmospheric stability and its application to atmospheric boundary layer
 ○Chaochao Qian (Chuo Univ.), Hiroki Nakajima (Chuo Univ.), Tadashi Yamada (Chuo Univ.)
- E313 Numerical simulation of shock waves associated with the entry of Russia meteor
 Mingyu Sun (Tohoku Univ.)
- E314 Study on surface behavior and breakup of water jet issuing out into atmosphere
 ○Kazuki Takahashi (Shinshu Univ.), Yasuo Koizumi (Shinshu Univ.), Ryuhei Ikuta (Toshiba Plant Systems and Services Corp.), Yusuke Ikoma (Sankyu Corp.), Hiroyuki Yoshida (JAEA), Kazuyuki Takase (JAEA)
- OS-9 Multiphase Flow in Natural Phenomena (4) 10:30~11:50
 Chair : Tomoaki NAKAMURA (Nagoya Univ.)
- E321 Assessment of impacts of storm surge by possible maximum typhoons in Ise and Tokyo bays
 ○Shinya Shimokawa (NIED), Tomokazu Murakami (NIED), Satoshi Iizuka (NIED), Jun Yoshino (Gifu Univ.), Takashi Yasuda (Aichi Univ. Tech.)
- E322 Local scour and flow structure at upstream of a dam gate
 ○Kazuyuki Ota (CRIEPI), Takahiro Sato (CRIEPI)
- E323 Transport and deposition of sand and particulate organic matters on vegetated area in a river
 ○Ho Seong Jeon (Nagoya Univ.), Makiko Obana (Univ. of Tokyo), Tetsuro Tsujimoto (Nagoya Univ.)
- E324 Study of river topography and numerical calculation at small and medium-sized river

○Kazuya Watanabe (Akita Univ.), Kazushi Nomura (Tokushima Univ.)

Room F(Lecture Building, 2F Lecture Room #200)

Organized Session OS-11 : Dynamics of Multiphase Flow

Organizer : Masao WATANABE (Hokkaido Univ.), Toshiyuki SANADA (Shizuoka Univ)

OS-11 Dynamics of Multiphase Flow (3) 8:50~10:10

Chair : Keita ANDO (Keio Univ.)

F311 Effect of temperature on cavitation erosion of SUS304 stainless steel

Shuji Hattori (Univ. of Fukui), ○Yoshihiro Motoi (Univ. of Fukui), Kazuhiro Ejiri (Univ. of Fukui)

F312 Local observation of impinging cavitating water jet on wall with laser irradiation

○Kouhei Yoshihisa (KIT), Kazuki Niiyama (KIT), Yasuhiro Sugimoto (KIT), Keiichi Sato (KIT)

F313 Experimental analysis of the collapse of a laser-induced bubble between solid walls

○Tatsuya Noda (Osaka Pref. Univ.), Atsushi Ishigami (Osaka Pref. Univ.), Toshiyuki Ogasawara (Osaka Pref. Univ.), Hiroyuki Takahira (Osaka Pref. Univ.), Emil-Alexandru Brujan(Univ. Politehnica of Bucharest)

F314 Observation of acoustic liposomes in a standing acoustic wave field

○Daisuke Imai (Osaka Pref. Univ.), Toshiyuki Ogasawara (Osaka Pref. Univ.), Hiroyuki Takahira (Osaka Pref. Univ.)

OS-11 Dynamics of Multiphase Flow (4) 10:30~11:50

Chair : Toshiyuki OGASAWARA (Osaka Pref. Univ.),

F321 Interaction of a gas bubble with ultrasound in a viscoelastic solid

○Fumiya Hamaguchi (Keio Univ.), Keita Ando (Keio Univ.)

F322 Discharge flow behavior of viscous fluids under rapid decompression with bubble nucleation

○Chihiro Ishikawa (Univ. of Tsukuba), Yutaka Abe (Univ. of Tsukuba), Akiko Kaneko (Univ. of Tsukuba)

F323 Study of condensation coefficient of ethanol vapor in wide range of nonequilibrium condensation states by shock tube experiment and molecular gas dynamics analysis

○Yusuke Watanabe (Hokkaido Univ.), Keisuke Katahira (Hokkaido Univ.), Kazumichi Kobayashi (Hokkaido Univ.), Masao Watanabe (Hokkaido Univ.)

F324 Numerical simulation of droplet spray flow accelerating in converging-diverging nozzle

○Ikki Saito (Hokkaido Univ.), Junya Kawahara (Hokkaido Univ.), Toshiyuki Tamura (Hokkaido Univ.), Kazumichi Kobayashi (Hokkaido Univ.), Masao Watanabe (Hokkaido Univ.)