

Parallel Session

Saturday, Nov 28, 2009

Room 1 (3F Conference room 301)

Fluid Engineering I

Chairperson: Manabu Iguchi (Hokkaido University)

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| 10:00-10:15 F-I-1 | Non-Cryogenic Method Helium Enrichment from Natural Gas V.M. Fomin, V.A. Lebiga, V.N. Zinovev, A.Y. Pak, A.S. Vereshchagin, I.V. Kazanin, A.F. Fomina |
| 10:15-10:30 F-I-2 | Flow Control using Magneto-Rheological Elastomers Kazuhiko Matsumura, Hiroshi Yamaguchi |
| 10:30-10:45 F-I-3 | Nonconventional Applications of the Hot-Wire Vadim Lebiga, Aleksey Pak, Vitaly Zinovyev |
| 10:45-11:00 F-I-4 | Flue Gas Characteristics of Sewage Sludge in a Fluidized Bed Incinerator with Turbocharger Takahiro Murakami, Akio Kitajima, Yoshizo Suzuki, Hidekazu Nagasawa, Takafumi Yamamoto, Takami Koseki, Hitoshi Hirose, Seiichiro Okamoto |

Fluid Engineering II

Chairperson: Tomiichi Hasegawa (Niigata University)

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| 11:15-11:30 F-II-1 | Anomalous Behavior in Jet Thrusts and Pressure Drops of Fluids Flowing Out of Micro-Orifices Akiomi Ushida, Tomiichi Hasegawa, Takatsune Narumi, Shouta Kudou |
| 11:30-11:45 F-II-2 | Effect of Water Jet on the Melting Process of Ice in a Cylindrical Bath Takeshi Kawayama, Masahiro Gotou, Satoshi Miki, Manabu Iguchi |
| 11:45-12:00 F-II-3 | Wettability Effect on a Single Bubble Passing through a Plate Orifice Placed in a Vertical Pipe Sho Yokoyama, Manabu Iguchi |
| 12:00-12:15 F-II-4 | Effect of Case Shape on Pressure in Newly Developed Containers for Liquid Food Subjected to Drop Impact Kenta Watanabe, Eisaku Umezaki |

Fluid Engineering III

Chairperson: Shuichi Torii (Kumamoto University)

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| 14:30-14:45 F-III-1 | Behavior of a Droplet on an Inclined Plate under Various Wettability Conditions Yusuke Sakai, Yoshiaki Ueda, Toshio Ishii, Manabu Iguchi |
| 14:45-15:00 F-III-2 | Occurrence Process of Jet-Induced Rotary Sloshing in a Cylindrical Container Yoshiaki Ueda, Daisuke Iguchi, Toshio Ishii, Manabu Iguchi |
| 15:00-15:15 F-III-3 | Water Model Experiment on Mechanical Agitation for Hot Metal Pretreatment Process Shingo Sato, Tatsuya Ohmi, Manabu Iguchi |
| 15:15-15:30 F-III-4 | The Dynamic Behavior of Liquid Droplets on Vibrating Plate Seiichi Sudo, Ayaka Goto, Hiroki Kuwano, Yuichiro Hamate, Tetsuya Yano, Kyohei Hoshika |

Fluid Engineering IV

Chairperson: Kenji Katoh (Osaka City University)

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| 15:45-16:00 F-IV-1 | Slot Coating Flows of Dilute Solution of High Molecular Weight Polymer Inside Dies Tomohiko Anazawa, Takeaki Tsuda, Hiroshi Yoshida, Takatsune Narumi and Tomiichi Hasegawa |
| 16:00-16:15 F-IV-2 | An Experimental Study of the Motion of Platelets in Shear Flow Takeshi Akinaga, Masako Sugihara-Seki, Tomoaki Itano, Junichiro Yamamoto |
| 16:15-16:30 F-IV-3 | Heat and Mass Transfer in Sponge Iron Reactor Reduction Zone Bayu ALamsari, Shuichi Torii, Azis Trianto, Yazid Bindar |

Saturday, Nov 28, 2009**Room 2 (3F Conference room 302B)****Materials Testing & Evaluation I**

Chairperson: Eisaku Umezaki (Nippon Institute of Technology)

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| 10:00-10:15 MA-I-1 | Estimation of Surface Pressure and Strength of Flapping Wings Chyanbin Hwu, W.B. Young, D.J. Wu, J.R. Wang |
| 10:15-10:30 MA-I-2 | High Strain-Rate Compressive Response of Friction Stir Welded AA6061-T6 Joints: Effect of Welding Parameter Takashi Yokoyama, Kenji Nakai, Kazuyoshi Katoh |
| 10:30-10:45 MA-I-3 | Orientation Dependence of In-Plane Tensile Properties of Paperboard and Cardboard: Experiments and Theories Takashi Yokoyama, Kenji Nakai |
| 10:45-11:00 MA-I-4 | Microchanneling and Lining Layer Formation by Spontaneous Infiltration in Fe-Cu System Takuhiro Kodama, Tatsuya Ohmi, Manabu Iguchi |

Materials Testing & Evaluation II

Chairperson: Kenji Nakai (Okayama University of Science)

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| 11:15-11:30 MA-II-1 | Study on Durability of Fiber-Mixed Planting Soils with Wood Chips for Rainfall Hiroshi Takahashi, Masato Mori, Satoshi Shibata, Takahashi Naganuma |
| 11:30-11:45 MA-II-2 | Impact Force Identification of FRP Composite Tanks Satoshi Atobe, Takeshi Kitagawa, Hisao Fukunaga |
| 11:45-12:00 MA-II-3 | Compressive Mechanical Properties and Microstructure of Porous PLLA/PCL Polymer Blend and PLLA/HAp Composite Material Joo-Eon Park, Mitsugu Todo |
| 12:00-12:15 MA-II-4 | Effect of Geometry of Load-Sensing Part Incorporated with Specimen in Measurement of Stress-Strain Relation under High Strain Rate Condition Tsutomu Umeda, Koji Mimura |

Materials Testing & Evaluation III

Chairperson: Takashi Yokoyama (Okayama University of Science)

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| 14:00-14:15 MA-III-1 | Cyclic Biaxial Stress Measurement Method using the Grain Growth Direction in Copper Foil Yuichi Ono, Cheng Li, Daisuke Hino |
| 14:15-14:30 MA-III-2 | Full-Field Evaluation of Surface Fatigue Damage using Laser Akira Kato, Satoshi Kohmura |
| 14:30-14:45 MA-III-3 | Experimental Study on Phases of Direct and Edge Waves from Piston Source Osami Kobori |
| 14:45-15:00 MA-III-4 | Evaluation of Stress Concentration Near the Crack Tip using Mechanoluminescent Coating Yusuke Imai, Chao-Nan Xu, Wen-Xue Wang |

Materials Testing & Evaluation IV

Chairperson: Chyanbin Hwu (National Cheng Kung University)

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| 15:15-15:30 MA-IV-1 | Nondestructive Inspection of Local Thinning by Infrared Thermography with SUS Film Heater Nagahisa Ogasawara, Masanori Ito, Norimasa Chiba |
| 15:30-15:45 MA-IV-2 | Visualization of Internal Defect of a Pipe using Mechanoluminescence Material Daisuke Ono, Chengzhou Li, Nan BU, Chao-Nan Xu |
| 15:45-16:00 MA-IV-3 | An Experimental Study on Contact Condition of Pipe Joints with a SUS316L Metal Gasket for Hydrogen Pipelines Nan Bu, Naohiro Ueno, Osamu Fukuda, Satoru Koyanagi |
| 16:00-16:15 MA-IV-4 | Improvement of Delamination Energy of Sputtered SiC Film by Forming Conical Precipitates at Interface Masahiko Kato, Masato Hayashi, Hiroyuki Akebono, Atsushi Sugeta |
| 16:15-16:30 MA-IV-5 | Determination of Viscoelastic Model by using Viscoelastic Split Hopkinson Pressure Bar Technique Takayuki Tamaogi, Yuji Sogabe, Takashi Yokoyama |

Saturday, Nov 28, 2009**Room 3 (3F Conference room 302A)****Biomechanics I**

Chairperson: Shigeo Tanaka (Kanazawa University)

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| 10:00-10:15 B-I-1 | The Strain Distribution around Dental Implants in Cortical/Cancellous Bone Models Determined Via a Digital Image Correlation Method Yasuyuki Morita, Lihe Qian, Mitsugu Todo, Yasuyuki Matsushita, Masakazu Uchino, Kazuo Arakawa, Kiyoshi Koyano |
| 10:15-10:30 B-I-2 | Measurement of Relative Motion Between Femur and Artificial Hip Joint Made of Shape Memory Alloy Takuya Tsuchihashi, Masaru Higa, Satoshi Kakunai |
| 10:30-10:45 B-I-3 | Shrinkage Behavior of a Light Cure Resin Composite in Cavities Kazuo Arakawa, Taichi Furukawa, Yasuyuki Morita, Masakazu Uchino, Hirohide Kaida |
| 10:45-11:00 B-I-4 | In Vivo Contact Areas of Tibiotalar Joint Measured with Magnetic Resonance Imaging Makoto Sakamoto, Yosei Nodaguchi, Yuji Tanabe, Keisuke Sasagawa, Yosuke Kubota, Hidenori Yoshida, Koichi Kobayashi |

Biomechanics II

Chairperson: Yasuyuki Morita (Nagoya University)

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| 11:15-11:30 B-II-1 | A Three-Dimensional Comparison of the Mechanical Axis of Lower Limb and Ground Reaction Force in Standing Posture Koichi Kobayashi, Makoto Sakamoto, Taro Kimura, Yuji Tanabe, Go Omori, Yoshio Koga |
| 11:30-11:45 B-II-2 | In-Vitro Measurement of Cement Mantle Pressure during Stem Insertion in Total Hip Arthroplasty Yuji Tanabe, Hidetane Kato, Hiroyoshi Iwaki |
| 11:45-12:00 B-II-3 | Angiogenesis in Mechanically Stimulated Periodontal Tissue Mirei Chiba, Haruhide Hayashi |
| 12:00-12:15 B-II-4 | Three-Dimensional In Vivo Contact Analysis for Wrist Joint During Wrist Motion Keisuke Sasagawa, Makoto Sakamoto, Hidenori Yoshida, Koichi Kobayashi, Yuji Tanabe |
| 12:15-12:30 B-II-5 | Accuracy Verification of Image-Matching in a Setting Method for the Stem During Total Hip Arthroplasty Yosuke Kubota, Makoto Sakamoto, Koichi Kobayashi, Yoshio Koga, Yuji Tanabe |

Biomechanics III

Chairperson: Kazuo Arakawa (Kyushu University)

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| 14:30-14:45 B-III-1 | Numerical Analysis of Pressure on Cup Surface of THA Shin Kai, Makoto Sakamoto, Koichi Kobayashi, Izumi Minato, Yoshio Koga, Yuji Tanabe |
| 14:45-15:00 B-III-2 | Biomechanical Analysis of Acetabular Defects Reconstruction with Impaction Bone Grafting in Revision Total Hip Arthroplasty Yuji Tanabe, Tomoyuki Yamazawa, Satoshi Iida, Shunji Kishida, Hirotsugu Ohashi |
| 15:00-15:15 B-III-3 | Relationship Between Residual Deformations and Strength Reduction of Tendinous Tissues Under Overloading Ei Yamamoto, Tadashi Kajiwara |
| 15:15-15:30 B-III-4 | Observation of Intracellular Ca²⁺ Dynamics in Three-Dimensionally Cultured Osteoblasts Under Dynamic Loading Shigeo Tanaka, Naoki Sugiura |

Biomechanics IV

Chairperson: Ei Yamamoto (Kinki University)

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| 15:45-16:00 B-IV-1 | Propagation of Mechanical Strain Under External Stretch in Mammalian Cells Takeomi Mizutani, Kenichi Doi, Yasuyuki Morita, Masakazu Uchino, Mitsugu Todo, Hisashi Haga, Kazushige Kawabata |
| 16:00-16:15 B-IV-2 | Stress Analysis on the Arch of the Foot by Photodynamic Method Heizo Kajiwara, Tsutomu Ezumi |
| 16:15-16:30 B-IV-3 | Experimental Examination on Mechanical Characteristic in State of Stress of Artificial Hip Joint using Stress Freezing Method Nobutaka Maezaki, Tsutomu Ezumi, Masashi Hachiya |

Sunday, Nov 29, 2009**Room 1 (3F Conference room 301)****Fluid Engineering V**

Chairperson: Seiichi Sudo (Akita Prefectural University)

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| 9:30-9:45 F-V-1 | High-Speed Visualization of Total Radiation and CARS Measurement of Vibrational/Rotational Temperatures Behind Hypervelocity Shock Waves of 5 km/s Kotaro Sakurai, Takashi Osada, Shota Niinomi, Masanori Ota, Kazuo Maeno |
| 9:45-10:00 F-V-2 | LIF-CCD Measurement on the Interaction of Jet and Inclined Plane Wall in Low-Pressure Chamber Sho Kurihara, Ai Yanagi, Shunsuke Yamazaki, Masanori Ota, Kazuo Maeno |
| 10:00-10:15 F-V-3 | Characteristics of Liquid Film Flowing around a Horizontal Circular Cylinder (Film Thickness and Wave Length of Standing Wave) Kenji Katoh, Tatsuro Wakimoto |
| 10:15-10:30 F-V-4 | On the Sliding and Profile of a Liquid Droplet on a Rotating Disk Kenji Katoh, Mituyoshi Higashine, Tatsuro Wakimoto, Ryohei Masuda |

Fluid Engineering VI

Chairperson: Kazuo Maeno (Chiba University)

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| 10:45-11:00 F-VI-1 | A Study on Capillary Flow under the Effect of Dynamic Wetting Kenji Katoh, Tatsuro Wakimoto, Sinichiro Nitta |
| 11:00-11:15 F-VI-2 | Effects of the Inner Nozzle Diameter and Hole Diameter on the Frequency of Bubble Formation From a Multi-Hole Nozzle Hirofumi Ooyabu, Akira Hiratsuka, Ryoji Tsujino, Manabu Iguchi |
| 11:15-11:30 F-VI-3 | Measurement of Velocity Field of Viscoelastic Flow in Asymmetric Planar Contraction Geometry of Slot Die Tomohiko Anazawa, Nobuyuki Fujisawa, Takeaki Tsuda, Hiroshi Yoshiba, Takahiro Yajima, Takayuki Yamagata |
| 11:30-11:45 F-VI-4 | Flow Analysis within Left Ventricle Supported by Intracardiac Pump Daisuke Tanimura, Tetsuya Yano, Seiichi Sudo, Yoshinori Mitamura |
| 11:45-12:00 F-VI-5 | An Experimental Study on Laminar-Turbulent Transition in a Pulsating Pipe Flow Hong-Sen Lo, Jiun-Jih Miao |

Fluid Engineering VII

Chairperson: Hideaki Monji (University of Tsukuba)

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| 15:15-15:30 F-VII-1 | Turbulence Structure Flowing Over a Wavy Wall (Flow Visualization and Time-Series PIV Measurement) Kentaro Tanaka, Shinji Nakagawa, Tomoyuki Hatakeyama, Masaru Ishizuka |
| 15:30-15:45 F-VII-2 | Conditional Sampling Stereoscopic PIV Measurement around Blade of Vertical Axis Wind Turbine Masaaki Honda, Tsuneo Noguchi, Deog-Hee Doh, Masahiro Takei, Susumu Ishii |
| 15:45-16:00 F-VII-3 | Suppression of Dioxin Formation by Dechlorination in Combustion Processes Hirotoshi Kawabata, Tateo Usui, Hideki Ono |

Sunday, Nov 29, 2009**Room 2 (3F Conference room 302B)****Materials Testing & Evaluation V**

Chairperson: Satoru Yoneyama (Aoyama Gakuin University)

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| 9:30-9:45 MA-V-1 | Cyclic Pressure Measurement Method using Electrodeposited Copper Foil Yuichi Ono, Cheng Li, Toru Maruhisa |
| 9:45-10:00 MA-V-2 | Formation of La-Ni Alloy Films by Molten Salt Electrochemical Process Hirokazu Konishi, Yukihide Yoshihara, Tateo Usui |
| 10:00-10:15 MA-V-3 | Anodic Oxidation of the Inner Wall of the Microchannel Formed by Ti-Al Reactive Infiltration Masashi Ishida, Tatsuya Ohmi, Masatoshi Sakairi, Manabu Iguchi |
| 10:15-10:30 MA-V-4 | Impact Behavior of CFRP Tubes for Full-Lap Collision of Automobiles Hyoung-Soo Kim, Yoshio Aoki, Goichi Ben |
| 10:30-10:45 MA-V-5 | Transport of Nitrogen From Molten Iron to Gas Phase Through CaO-Al₂O₃ Melt Hideki Ono, Takanori Satoh, Tateo Usui |

Optical Methods and Image Processing I

Chairperson: Satoshi Kakunai (University of Hyogo)

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| 11:00-11:15 O-I-1 | Shape Measurement by Phase Shift Method with Coloring Grid Toru Matsui |
| 11:15-11:30 O-I-2 | Full-Field Unwrapping of Isochromatic Fringe Orders from Photoelastic Fringes Obtained using Plane Polariscope Wataru Murata, Yudai Nomura, Eisaku Umezaki |
| 11:30-11:45 O-I-3 | Observation of Cylindrical Surfaces using Laser Microscope with a Wide Field of View Isami Nitta, Rintaro Ebuchi, Hai Huan |
| 11:45-12:00 O-I-4 | Stress Analysis Method for a Residual Stress Model Toshiki Kihara |

Optical Methods and Image Processing II

Chairperson: Motoharu Fujigaki (Wakayama University)

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| 15:15-15:30 O-II-1 | Vibration Characteristics for Parallel-Type and Series-type Triple-layered Piezoceramic Bimorphs Yu-Hsi Huang, Chien-Ching Ma |
| 15:30-15:45 O-II-2 | A Dynamic Model of Bubble Coalescence in Newtonian fluids Boris Boshenyatov |
| 15:45-16:00 O-II-3 | Computing Strain Distributions on a Three-Dimensional Surface From Measured Displacements Satoru Yoneyama |
| 16:00-16:15 O-II-4 | Stereo X-ray Imaging for 3D Channel Flow Measurements Tomomasa Uemura, Wah-Keat Lee, Yasuhumi Yamamoto, Yuhki Haga |
| 16:15-16:30 O-II-5 | Development of Displacement Measurement System at Long-Range in Sampling Moire Method Hiroyuki Kondo, Motoharu Fujigaki, Akihiro Masaya, Yoshiharu Morimoto, Makiko Nakabo |

Sunday, Nov 29, 2009**Room 3 (3F Conference room 302A)****Multiphase Flows I**

Chairperson: Hiroshi Takahashi (Tohoku University)

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| 9:30-9:45 MU-I-1 | Movement of Micro Particles under Electrical Field Kazuki Oshii, Je-Eun Choi, Hiromiti Obara, Masahiro Takei |
| 9:45-10:00 MU-I-2 | Two-Phase Flow Pattern Analysis in Multi-Scale Time-Frequency Domain Zhongke Gao, Ningde Jin, Zhenya Wang, Xiaofei He |
| 10:00-10:15 MU-I-3 | Effects of Channel Scale and Wettability on Flow Pattern and Pressure Drop of Air-water Two-phase Flow in Horizontally Placed Rectangular Millimeter Scale Channels Takehiko Kumagai, Masahito Sato, Manabu Iguchi |
| 10:15-10:30 MU-I-4 | Flow and Heat Transfer Control to Improve the Performance of Fin-Tube Type Heat Exchanger by Vortex Generator Toshihiko Shakouchi, Keiji Hori, Ichiro Suzuki, Koichi Tsujimoto, Toshitake Ando |

Multiphase Flows II

Chairperson: Masahiro Takei (Nihon University)

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| 10:45-11:00 MU-II-1 | Behavior of a Chain of Very Small Bubbles in Stagnant Water Toshihide Fujikawa, Tomomasa Uemura, Manabu Iguchi |
| 11:00-11:15 MU-II-2 | Study on Hole Cleaning in Horizontal Foam Drilling : Pressure Loss of Foam Flow in Annulus Amna Gumati, Hiroshi Takahashi |
| 11:15-11:30 MU-II-3 | Compact and Strong Magnetic Field Generators Loading Cryo-Cooled High Temperature Superconducting Bulk Magnets and Their Application to Magnetic Separation Technique for Water Purification Tetsuo Oka, Hidetaka Yamazaki, Hirotaka Seki, Katsuyoshi Tanaka, Takafumi Kimura, Daiki Mimura, Satoshi Fukui, Jun Ogawa, Takao Sato, Manabu Ooizumi, Kazuya Yokoyama, Mitsugi Yamaguchi |

Multiphase Flows III

Chairperson: Toshihiko Shakouchi (Mie University)

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| 15:15-15:30 MU-III-1 | Casting and Simultaneous Welding of Tri-Nickel Aluminide on Dissimilar Materials by Centrifugal Combustion Synthesis Tatsuya Ohmi, Manabu Iguchi |
| 15:30-15:45 MU-III-2 | Fabrication of Porous Transpiration-Cooling Device by Powder-Metallurgical Microchanneling Process Masutaka Omura, Tatsuya Ohmi, Takehiko Kumagai, Manabu Iguchi |
| 15:45-16:00 MU-III-3 | Flow Patterns of Gas-Liquid Two-Phase Flow through an Abrupt Expansion in Millimeter-Scale Rectangular Channel Takashi Oke, Takehiko Kumagai, Manabu Iguchi |
| 16:00-16:15 MU-III-4 | Heat Flux Measurement and Analysis on Boiling Heat Transfer in a Helically Coiled Tube Masatomi Suzuki, Isao Kataoka, Masuo Kaji, Goichi Matsui |

Monday, Nov 30, 2009

Room 1 (3F Conference room 301)

Monitoring & Measurement Analysis

Chairperson: Akira Kato (Chubu University)

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| 10:00-10:15 MO-1 | PIV Experiments on the Wake of Two Tandem Cylinders Kazuo Ohmi, Sanjeeb Prasad Panday, Basanta Joshi |
| 10:15-10:30 MO-2 | Variation of Phase Separation Property with B Content in Liquid Fe-Cu System Katsuhiro Yamaguchi, Hideki Ono, Yasuhisa Tachiiri, Tateo Usui |
| 10:30-10:45 MO-3 | An Experimental Investigation of Nitrate Concentration in Groundwater of Kathmandu D. R. Pathak, A. Hiratsuka, R. Tsujino, M. Iguchi |
| 10:45-11:00 MO-4 | New Optical Method to Measure Slight Difference of Contact Angle Tatsuro Wakimoto, Kenji Katoh, Mitsuhiro Higashine |

Room 2 (3F Conference room 302B)

Optical Methods and Image Processing III

Chairperson: Isami Nitta (Niigata University)

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| 10:00-10:15 O-III-1 | Development of Three-Dimensional Stress Analysis of Rapid Prototyping Model using Digital Holography and Index Matching Yohsuke Tanaka, Shigeru Murata |
| 10:15-10:30 O-III-2 | Identification of Reconstruction Distance in Phase-shifting Digital Holography for Microscope Riku Nishitani, Motoharu Fujigaki, Yoshiharu Morimoto |
| 10:30-10:45 O-III-3 | Application to Bin-picking of 3D Shape Measurement using Whole-Space Tabulation Method with MEMS Scanner Grating Projector Daisuke Asai, Teiji Miyagi, Motoharu Fujigaki, Yoshiharu Morimoto |
| 10:45-11:00 O-III-4 | Hair-Pin Vortices from a Pair of Surface Mounted Rectangular Cylinders at a Low Reynolds Number Shou-Yen Chao, Jung-Hua Chou, Shi-Ming Sheu |

Room 3 (3F Conference room 302A)

Multiphase Flows IV

Chairperson: Takatsune Narumi (Niigata University)

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| 10:00-10:15 MU-IV-1 | Effect of Initial Acceleration History on Transition to Turbulence in Pipe Flow Kazuyoshi Nishihara, Yusuke Nakahata, Charles W. Knisely, Manabu Iguchi |
| 10:15-10:30 MU-IV-2 | Relationship Between Internal Flow and Fan Noise of Cross Flow Fan Kazuyoshi Nishihara, Yusuke Nakahata, Charles W. Knisely, Manabu Iguchi |
| 10:30-10:45 MU-IV-3 | Fundamental Study on Forced Convection Heat Transfer of Microencapsulated Phase Change Material Suspensions Flowing in Circular Mini-Pipe Takehiro Hashimoto, Shinji Nakagawa, Tatsuya Hayashi, Tomoyuki Hatakeyama, Masaru Ishizuka |
| 10:45-11:00 MU-IV-4 | Bouncing Behavior of Rotating Cylinder on Wall in Water Hideaki Monji, Masato Sato |

Poster Session

(Nov 28, 16:30-17:30)

(Nov 29, 14:00-15:00)

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| P-1 (7) | Effect of Cyclic Stretch on the Morphology of Osteoblasts Teng-Hsiang Yang, Fong-Chin Su |
| P-2 (33) | Cryo-Cooled High Temperature Superconducting Bulk Magnets and Their Application to the Magnetizing Devices for Permanent Magnets Nobutaka Kawasaki, Toshiki Muraya, Jun Imai, Satoshi Fukui, Jun Ogawa, Takao Sato, Yoshitaka Ito, Toshihisa Terasawa, Tetsuo Oka |
| P-3 (46) | Study on New Production Method of Biomass Ethanol from Food Wastes Takeshi Umemoto, Koji Mori, Hiromasa Kitayama |
| P-4 (59) | The Friction Welding Method with Translational Friction by Intermediate Material Ryoji Tsujino, Masaharu Hashimoto, Yasunobu Kakuma, Kiyoshi Matsura, Mitsuhiro Nomura |
| P-5 (62) | Accuracy of Three-Dimensional Evaluation of Spinal Structure using Image Registration Technique Kiyoko Kazama, Koichi Kobayashi, Keisuke Sasagawa, Makoto Sakamoto |
| P-6 (67) | Numerical Simulation of Subsonic and Transonic Flutter Characteristics for AGARD WING 445.6 with Two-Way Method Wen-Juan Ye, Young-Shin Lee, Hae-Lan Kim |
| P-7 (79) | Study for the Cause of Root Fracture - Influence for Adjacent Tissue by the Condensation of Root Canal Filling - Hideaki Endo, Tomofumi Sasaki, Satoshi Abe, Hidemi Itoh, Hidetoshi Shimauchi, Masashi Komatsu, Makoto Sakamoto |
| P-8 (80) | Stress Analysis of Root Fracture - Relationship Between Mechanical Stress and Root Fracture During Treatment of Root Canal Filling - Hideaki Endo, Tomofumi Sasaki, Satoshi Abe, Hidemi Itoh, Hidetoshi Shimauchi, Masashi Komatsu, Makoto Sakamoto |
| P-9 (95) | Model Experiments on Water Entrainment and Oxygen Transfer of Air Lifting Tower Placed in Bottom of Reservoir Akinori Nakata, Takaya Yanobu, Masataka Yamagishi, Yusaku Hosoki |
| P-10 (96) | Measurement of Local Burning Velocity Vector in a Turbulent Premixed Bunsen Burner Flame Yoshiki Noguchi, Yoichi Shiomi |
| P-11 (108) | Crevice Corrosion Test Method and Corrosion Analysis of Zn-Coated Steel Hiroyuki Saito, Takao Handa |
| P-12 (109) | Development of Body-Weight Support Treadmill Training (BWSTT) System with a Magnetorheological Fluid Actuator and Control of Its Supporting Point Daisuke Nishio, Junji Furusho, Sousuke Tanida, Takuya Ozawa, Takehito Kikuchi |
| P-13 (110) | Development of 3rd Prototype of Intelligent Ankle Foot Orthosis with MR Fluid Brake (3rd i-AFO) Kikuko Otsuki, Takehito Kikuchi, Sosuke Tanida, Takashi Yasuda, Junji Furusho |
| P-14 (111) | Force Display System using MR Fluid Brakes and Its Application to Upper Limbs Rehabilitation Junji Furusho, Kazuhiro Nishiwaki, Makoto Haraguchi, Kazuyoshi Nishihara |
| P-15 (112) | Basic Study of Rehabilitation System for Upper Limbs with Redundant ER Fluid Brakes Junji Furusho, Hiroshi Kobayashi, Makoto Haraguchi |
| P-16 (113) | 6-DOF Upper Rehabilitation Support Robot for Upper Extremities using ER Fluid Actuators and Its Application to the Assessment in Rehabilitation Training Shiro Isozumi, Junji Furusho, Kunihiko Oda, Takehito Kikuchi |
| P-17 (114) | Basic Study on Evaluation System of Trajectory Tracking for Upper Limbs using 3D Rehabilitation Robot "EMUL" and a Functional NIRS Mayumi Sonobe, Makoto Haraguchi, Takehito Kikuchi, Junji Furusho, Masahito Mihara, Megumi Hatakenaka, Ichiro Miyai |