

Tuesday, October 27, 2015

9:00	<p>Opening Address & Plenary Lectures @ TACHIBANA</p> <p>9:00-9:20 Opening</p> <p>9:20-10:10 Highlights from a University / Government Collaboration - Old Dominion University and NASA Langley Research Center <i>Colin Britcher</i> Chair: <i>Keisuke Asai</i></p> <p>10:15-11:05 Drop dynamics in complex fluids: Partial coalescence and self-assembly <i>James J. Feng</i> Chair: <i>Ching-Yao Chen</i></p> <p>11:10-12:00 Challenges in Photovoltaics <i>Noritaka Usami</i> Chair: <i>Seiji Samukawa</i></p>								9:00	
12:00	<p>LUNCH / Scientific Committee Meeting @ MEETING ROOM 8</p>								12:00	
13:00	MEETING ROOM 1	MEETING ROOM 2	SAKURA 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7	13:00
	<p>OS13: Complex Thermo-fluid System Chair: <i>C.-Y. Chen</i></p>	<p>OS14: International Workshop on Cavitation Peening and Related Phenomena Chair: <i>H. Soyama</i></p>	<p>OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics Chair: <i>K. Kato</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-1 Chair: <i>K. Maruta</i></p>	<p>OS1: The Third International Symposium on Innovative Energy Research I Chair: <i>T. Kubota</i></p>	<p>OS3: The Third International Symposium on Innovative Energy Research III: Reconstruction of Large Scale Disasters and Explore Methods to Mitigate the Effects of These Disasters</p>		<p>OS9: New Dimensions of Magnetic Suspension and Balance System Chair: <i>H. Sawada</i></p>	
	<p>13:00-13:20 OS13-1 <i>Invited</i> Hydrodynamic Fingering Instability with Precipitation Reactions <i>Y. Nagatsu</i></p> <p>13:20-13:40 OS13-2 <i>Invited</i> Stability Analysis of Viscous Fingering Effects on the Adsorbed Solute Dynamics <i>T. K. Hota, M. Mishra</i></p> <p>13:40-13:55 OS13-3 Experimental Study of Viscous Fingering in an Aqueous Two Phase System <i>R. Suzuki, T. Ban, M. Mishra, Y. Nagatsu</i></p>	<p>13:00-13:30 OS14-1 <i>Keynote</i> Effect of Surface Modification Technology on Mechanical Property and Fatigue Life of High Strength Materials <i>H. Morikawa, M. Ramulu</i></p> <p>13:30-13:50 OS14-2 <i>Invited</i> Fatigue improvement effect of Ti-6Al-4V by fine particle shot peening <i>A. Inoue</i></p> <p>13:50-14:10 OS14-3 <i>Invited</i> Conventional Shot Peening Processes for Boeing's Aerospace manufacturing Operations <i>D. Sanders, H. Diep, M. Kunz</i></p>	<p>13:30-(14:40) OS16-1 - OS16-23 <i>Short Oral Presentation</i></p> <p>Session 1 Chair: <i>M. Takeda, B. Lee</i></p> <p>13:45-14:05 OS15-1 Experimental evaluation of effective reaction area in SOFC cathode by electrochemical impedance spectroscopy using the patterned electrode <i>Y. Shindo, Y. Fujimaki, T. Nakamura, F. Iguchi, H. Yugami, K. Yashiro, T. Kawada, K. Amezawa</i></p> <p>14:05-14:25 OS15-2 Parametric impedance analysis of photoelectrochemical cells with various semiconducting electrodes <i>M. H. Pham, E.-C. Shin, D. T. Nguyen, D.-C. Cho, J. Heo, S.-H. Kang, J.-S. Lee</i></p>	<p>13:30-13:45 Opening address</p> <p>Session 1 Chair: <i>M. Takeda, B. Lee</i></p> <p>13:45-14:05 OS15-1 Experimental evaluation of effective reaction area in SOFC cathode by electrochemical impedance spectroscopy using the patterned electrode <i>Y. Shindo, Y. Fujimaki, T. Nakamura, F. Iguchi, H. Yugami, K. Yashiro, T. Kawada, K. Amezawa</i></p> <p>14:05-14:25 OS15-2 Parametric impedance analysis of photoelectrochemical cells with various semiconducting electrodes <i>M. H. Pham, E.-C. Shin, D. T. Nguyen, D.-C. Cho, J. Heo, S.-H. Kang, J.-S. Lee</i></p>	<p>13:00-13:25 OS2-1 <i>Invited</i> Influence of Flame Inhibitors on Combustion Processes <i>V. I. Babushok</i></p> <p>13:25-13:50 OS2-2 <i>Topical</i> Effects of Mixture Composition and Turbulence Intensity on Flame Front Structure and Burning Velocities of Premixed Turbulent Hydrocarbon-Air Bunsen Flames <i>P. Tamadonfar, Ö. L. Gülder</i></p> <p>13:50-14:10 OS2-3 Experimental Study on Flame Structures at Flammability Limits of Non-premixed Flames <i>M. J. Lee, Y. Jung, N. I. Kim</i></p>	<p>13:00-13:30 OS1-1 <i>Invited</i> High Efficiency Nano Energy Devices Using Bio-template Ultimate Top-down Process <i>S. Samukawa</i></p> <p>13:30-14:00 OS1-2 <i>Invited</i> Rapid Mass Production of Graphene by Supercritical Fluid <i>N. Oka, T. Tomai, I. Honma</i></p> <p>14:00-14:30 OS1-3 <i>Invited</i> Deformation and Carbon Deposition of Ni-YSZ Cermet for Solid Oxide Fuel Cells <i>T. Nakamura, N. Ohmura, T. Kudo, K. Matsuoka, K. Amezawa</i></p>	<p>13:00-13:45 OS3-1 <i>Invited</i> The Scale Modeling Large Scale Disasters: Finding the Root Causes and Testing Effectiveness of Prevention Methods <i>K. Sekimoto, K. Kuwana, J. Ishimoto, K. Saito</i></p> <p>13:50-14:30 OS3-2 <i>Invited</i> Theoretical Prediction of Flame Propagation during a Gas Explosion <i>K. Kuwana</i></p>		<p>13:00-13:30 OS9-1 <i>Invited</i> A Retrospective on the First Two Eras of Magnetic Suspension and Balance System Research <i>C. Britcher</i></p> <p>13:30-13:50 OS9-2 Support Interference Effects on Aerodynamic Forces of a Magnetically Suspended 6:1 Prolate Spheroid Model <i>T. Ambo, T. Otsuki, S. Taniguchi, D. Numata, K. Asai</i></p> <p>13:50-14:10 OS9-3 Evaluation of Interference Effects of Oil-Flow Visualization on the Model Position and Attitude Sensor System of the 0.3-m MSBS <i>S. Taniguchi, T. Ambo, D. Numata, K. Asai</i></p>	

Tuesday, October 27, 2015

<p>13:55-14:10 OS13-4 Radial Viscous Fingering of Finite Miscible Ring: An Experimental Study <i>H. B. Othman, M. Mishra, Y. Nagatsu</i></p> <p>14:10-14:25 OS13-5 Mixing Enhancement by Alternative Radial Injection <i>Y.-C. Huang, Y.-S. Huang, C.-Y. Chen</i></p>	<p>14:10-14:30 OS14-4 - OS14-9 <i>Poster Presentation</i></p>		<p>14:25-14:45 OS15-3 Modification of oxygen potential at (La,Sr)CoO_{3,δ} electrode surface <i>D. Nonami, K. Yashiro, S. Hashimoto, T. Kawada</i></p>	<p>14:10-14:30 OS2-4 Numerical Investigation on the Combustion Characteristics of Turbulent Premixed Swirl Flames for Ammonia/air Mixture <i>K. D. K. A. Somaratne, A. Hayakawa, H. Kobayashi</i></p>				<p>14:10-14:30 OS9-4 Experimental Study of Flow Characteristics around a Control Valve Plug Using a Magnetic Suspension and Balance System <i>K. Komatsubara, R. Oshima, H. Sawada, S. Obayashi, H. Yamakawa</i></p>
<p>BREAK</p>								
<p>MEETING ROOM 1</p>	<p>MEETING ROOM 2</p>	<p>SAKURA 2</p>	<p>TACHIBANA</p>	<p>HAGI</p>	<p>MEETING ROOM 4</p>	<p>MEETING ROOM 5</p>	<p>MEETING ROOM 6</p>	<p>MEETING ROOM 7</p>
<p>OS13: Complex Thermofluid System <i>Chair: S. Mishra</i></p>	<p>OS14: International Workshop on Cavitation Peening and Related Phenomena <i>Chair: H. Soyama</i></p>	<p>OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics <i>Chair: K. Kato</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-II Chair: S. Minaev</p>	<p>OS1: The Third International Symposium on Innovative Energy Research I <i>Chair: T. Okada</i></p>	<p>OS3: The Third International Symposium on Innovative Energy Research III: Reconstruction of Large Scale Disasters and Explore Methods to Mitigate the Effects of These Disasters</p>	<p>OS5: Proteins Flow Dynamics <i>Chair: M. Ohta Y. Mukai</i></p>	<p>OS9: New Dimensions of Magnetic Suspension and Balance System <i>Chair: K. Asai</i></p>
<p>14:40-15:00 OS13-6 <i>Invited</i> Numerical Study of the Collapse of a Bubble Cluster <i>X. Shao, L. Zhang, L. Liu, L. Chen</i></p> <p>15:00-15:20 OS13-7 <i>Invited</i> Diffuse-Interface Approaches to Miscible and Immiscible Hele-Shaw Flows <i>C.-Y. Chen, Y.-S. Huang</i></p> <p>15:20-15:35 OS13-8 Numerical Visualization of Nanobubble Behaviors at a Roughened Solid-Liquid Interface under Influence of Surface Charge Density <i>T.-H. Yen, C.-Y. Soong</i></p>	<p>14:40-15:00 OS14-10 <i>Invited</i> Improvement of Fatigue Strength By Cavitation Peening For Aluminum Alloy having a Crack-like Surface Defect <i>K. Takahashi, H. Osedo, S. Fukuda</i></p> <p>15:00-15:20 OS14-11 <i>Invited</i> Fatigue Strength of Steel Rollers and Gears Treated by Cavitation Peening with a Processing Time of 1 minute and 5 minutes <i>M. Seki, H. Soyama</i></p> <p>15:20-15:40 OS14-12 Suppression of Hydrogen-Assisted Fatigue Crack Growth in Austenitic Stainless Steel by Cavitation Peening <i>O. Takakuwa, H. Soyama</i></p>	<p>(14:50-16:30) OS16-1 - OS16-23 <i>Poster Presentation</i></p>	<p>14:45-15:05 OS15-4 Analysis of the grain boundary conductivity of doped CeO₂ thin films at elevated temperature <i>N. W. Kwak, W. C. Jung</i></p> <p>15:05-15:20 BREAK</p> <p>15:20-16:20 OS15-5 <i>Tutorial Lecture 1</i> High performance water splitting photoelectrodes based on heterogeneous nanostructures <i>H. W. Jang</i></p>	<p>14:40-15:05 OS2-5 <i>Topical</i> Radiation Heat Transfer in Particle-Laden Mixture: Flame Acceleration, Triggering Detonation - Origin of Dust Explosion <i>M. A. Liberman, M. F. Ivanov, A. D. Kiverin</i></p> <p>15:05-15:30 OS2-6 <i>Topical</i> Flame Acceleration and Deflagration-to-Detonation Transition in a Torus Geometry <i>M. Kuznetsov, J. Grune</i></p> <p>15:30-15:50 OS2-7 Ignition of Methanol-Air mixtures by a Heat Point Source <i>A. Millán, E. Fernández-Tarrazo, M. Sánchez-Sanz, A. L. Sánchez, F. A. Williams</i></p>	<p>14:40-15:10 OS1-4 <i>Invited</i> Analysis of Nanoscale Transport Phenomena of Reaction Materials for Next Generation PEFC <i>T. Tokumasu</i></p> <p>15:10-15:40 OS1-5 <i>Invited</i> A Challenge to the Multi-Objective Design Exploration of a Smart Home System <i>K. Shimoyama, T. Kato, N. Akiyama, Y. Ehara, S. Yamada, T. Kokuryo</i></p>	<p>14:40-15:20 OS3-3 <i>Invited</i> How Well We Can Predict the Occurrence of Large Fire Whirl through Scale Model Experiment? <i>Y. Nakamura, K. Shiino, T. Nakashima</i></p> <p>15:25-15:45 OS3-4 Modelling of Heat Transfer in a Kerosene Fired Pressure Cooking Stove <i>S. Panigrahy, S. C. Mishra</i></p>	<p>14:40-15:10 OS5-1 <i>Invited</i> Structural and Functional Properties of Membrane Protein Bacteriorhodopsin in Partially Fluorinated Phospholipid Bilayer <i>M. Sonoyama</i></p> <p>15:10-15:25 OS5-2 Comparative Study between Mammal and Plant GPI Modification Mechanism <i>H. Sugita, N. Takachio, N. Kato, H. Kaku, M. Ohta, Y. Mukai</i></p>	<p>14:40-15:10 OS9-5 <i>Invited</i> A New 1-m Magnetic Suspension and Balance System for the Low Turbulence Wind Tunnel at IFS <i>H. Sawada, S. Obayashi</i></p> <p>15:10-15:30 OS9-6 Wind Tunnel Test of an Archery Arrow with JAXA 60-cm Magnetic Suspension and Balance System <i>R. Ando, T. Matsumoto, T. Miyazaki, H. Sugiura</i></p>

Tuesday, October 27, 2015

15:35-15:50 OS13-9 The Applications of the Immersed Boundary in Film Cooling Problems with Different Injection Angles <i>H.-J. Lu, W.-S. Fu, K.-R. Huang</i>	15:40-16:00 OS14-13 <i>Invited</i> Fatigue Strength Evaluation Based on Dissipated Energy Measurement for Cavitation Peening Material <i>D. Shiozawa, T. Inagawa, T. Washio, T. Sakagami, H. Soyama</i>			15:50-16:10 OS2-8 Numerical Investigation on the Propagating Process of the Cylindrical Detonation <i>X.-D. Han, D. Wu, J.-P. Wang</i>	15:40-16:10 OS1-6 <i>Invited</i> A New Metallic Complex Reaction Etching for MRAM Materials by A Low-Temperature Neutral Beam Process <i>T. Kubota, S. Samukawa</i>	15:50-16:10 OS3-5 An Analysis of the Hydrogen Explosion in the Fukushima-Daiichi Accident <i>M. Kuznetsov, J. Yanez</i>	15:25-15:40 OS5-3 Protein Recognition Mechanism for GPI Modification <i>D. Takahashi, T. Ogawa, K. Etchuya, K. Hamada, Y. Mukai</i>	15:30-15:50 OS9-7 Optimization of the Size of a Discus for Paralympians <i>K. Seo, N. Takahashi, K. Shimoyama, K. Kawabata, T. Mitsui, Y. Kimura</i>
15:50-16:05 OS13-10 Numerical Simulations and Experiments of Single-Phase Fluid Loop <i>Y. Li, X. Xu, B. Wang, X. Liang</i>	16:00-16:10 OS14-14 - OS14-16 <i>Poster Presentation</i>						15:40-16:10 OS5-4 <i>Invited</i> Multi-drug Resistance of Gram-negative Bacteria—Insights from Influx and Efflux Rates of β -lactam Antibiotics Across the Outer Membrane— <i>S. Kojima</i>	

16:10

16:10

BREAK

MEETING ROOM 1	MEETING ROOM 2	SAKURA 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7
OS13: Complex Thermo-fluid System <i>Chair: M. Mishra</i>	OS14: International Workshop on Cavitation Peening and Related Phenomena <i>Chair: O. Takakuwa</i>	OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics <i>Chair: K. Kato</i>	OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials	OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-III <i>Chair: J. Ahn</i>		GS1: General Session Fluid Machinery <i>Chair: Y. Iga</i>	OS4: Medical Flow Dynamics	OS9: New Dimensions of Magnetic Suspension and Balance System <i>Chair: S. Obayashi</i>
16:20-16:40 OS13-11 <i>Invited</i> Surface Oscillations of Magnetic Fluid in Magnet-Magnetic Fluid Systems under the Alternating Magnetic Field <i>S. Sudo, M. Nakanishi, H. Nishiyama</i>	16:20-16:40 OS14-17 <i>Invited</i> Effect of Horn Tip Geometry on Ultrasonic Cavitation Intensity <i>T. Sasaki, S. Sasaki, S. Yoshida</i>	(14:50-16:30) OS16-1 - OS16-23 <i>Poster Presentation</i>	16:20-16:35 BREAK Session2 <i>Chair: G. Imai, J. Lee</i>	16:20-16:40 OS2-9 Flame Instability in a mm-Scale Layer <i>M. Kuznetsov, J. Yanez</i>		16:20-16:40 GS1-1 Simulation of Unsteady Wet-steam Flow in Low Pressure Turbine Stages considering Blade Number <i>H. Miyazawa, S. Miyake, S. Yamamoto</i>	16:20-16:50 OS4-1 <i>Invited</i> Perfusion Imaging: Basic Principles and Clinical Applications <i>M. Sasaki</i>	16:20-16:50 OS9-8 <i>Invited</i> Feasibility of Dynamic Stability Measurements of Planetary Entry Capsules Using MSBS <i>C. Britcher, M. Schoenenberger</i>
16:40-17:00 OS13-12 <i>Invited</i> Analysis of Dual-Phase Lag Heat Conduction in a Spherical Shell Using the Lattice Boltzmann Method <i>A. Mukherjee, A. Lahiri, S. C. Mishra</i>	16:40-17:00 OS14-18 <i>Invited</i> Fatigue Property Improvement of TYPE 316L Steel by Cavitation Shotless Peening <i>K. Masaki, H. Soyama</i>		16:35-16:55 OS15-6 Evaluation of reaction distribution in composite cathode lithium ion secondary batteries studied by using two-dimensional XAS <i>K. Chiba, Y. Kimura, T. Nakamura, K. Amezawa, H. Tanida, Y. Uchimoto, Z. Ogumi</i>	16:40-17:00 OS2-10 Discussion on the Relationship between the Critical Flame Propagation Velocity and Laminar Burning Velocity <i>Y. Jung, M. J. Lee, N. I. Kim</i>		16:40-17:00 GS1-2 DDES Simulation of Turbine Blade at High Subsonic Outlet Mach Number <i>X. Su, X. Yuan</i>	16:50-17:10 OS4-2 Stagnant Blood Flow in Cerebral Aneurysms <i>S. Sugiyama, M. Ohta, T. Tominaga</i>	16:50-17:10 OS9-9 Dynamic Calibration of Magnetic Suspension and Balance System for Aerodynamic Force Measurement <i>R. Oshima, K. Komatsubara, H. Sawada, S. Obayashi</i>
17:00-17:15 OS13-13 The Effect of Surrounding Fluids on the Interfacial Oscillation of Magnetic Fluid Subject to Alternating Magnetic Field <i>M. Nakanishi, S. Sudo, H. Nishiyama</i>	17:00-17:20 OS14-19 <i>Invited</i> UNSM Technology and Application on Friction Drag Reduction <i>Y.-S. Pyun, A. Amanov</i>		16:55-17:15 OS15-7 Lithium dynamics in NCM523 <i>H.-S. Sim</i>	17:00-17:20 OS2-11 Measurement of Laminar Burning Velocities of DME-air Mixtures at Elevated Temperatures <i>R. J. Varghese, V. R. Kishore, M. R. Akram, S. Kumar</i>		17:00-17:20 GS1-3 Conjugate Heat Transfer Analysis on the Film-Cooling Effectiveness of a Flat Plate with Trench Configurations <i>I. Kim, J. Kim, D.-H. Rhee, J. Cho</i>	17:10-17:30 OS4-3 Investigation of Inlet Position in Hemodynamic Analysis of a Cerebral Aneurysm <i>D. Suzuki, K. Funamoto, S. Sugiyama, T. Hayase, S. Miyauchi, T. Tominaga</i>	

16:20

16:20

Wednesday, October 28, 2015

MEETING ROOM 1	MEETING ROOM 2	SAKURA2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7	MEETING ROOM 8	SHIRAKASHI
<p>OS13: Complex Thermo-fluid System Chair: Y.-L. Tsay</p>	<p>OS14: International Workshop on Cavitation Peening and Related Phenomena Chair: H. Soyama</p>	<p>OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics Chair: T. Kogawa</p>	<p>OS17: IFS Collaborative Research Forum (AFI-2015) Chair: G. Kikugawa</p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-IV Chair: S. Kumar</p>	<p>GS1: General Session Fluid Systems Chair: C.-H. Chang</p>	<p>OS8: Flow Dynamics and Combustion Technology in Hybrid Rocket Propulsion Keynote Speech & Characterization I Chair: T. Shimada</p>	<p>OS4: Medical Flow Dynamics</p>	<p>OS10: Science and Technology of Nanoscale Heat Transfer and Outlook for their Application Chair: Y. Yamaguchi</p>		
<p>9:00-9:20 OS13-16 <i>Invited</i> The Development and Applications of Temperature-Sensitive Paints in Microfluidic Systems: Current Status and Future Aspects <u>C.-Y. Huang</u>, Y.-T. Chen, C.-A. Li, C.-M. Wu, B.-H. Huang, T.-M. Liou</p> <p>9:20-9:35 OS13-17 Numerical Study of a Small Droplet Migration in Microchannel Under a Heated Upper Wall <u>T.-L. Le</u>, J.-C. Chen, F.-S. Hwu, H.-B. Nguyen</p> <p>9:35-9:50 OS13-18 Surface Effect on Gas Molecular Properties of Interfacial Nanobubble <u>T.-H. Yen</u>, C.-Y. Soong</p> <p>9:50-10:05 OS13-19 Mass Transfer Measurement in Elbow by Electrochemical Method <u>K. Kamiya</u>, T. Tong, T. Tsuneyoshi, T. Ito, Y. Tsuji, Y. Utanohara</p> <p>10:05-10:25 OS13-20 <i>Invited</i> Simulations of Flow past an Inclined Flat Plate with Adaptive Nonconforming Spectral Element Method <u>L.-C. Hsu</u>, K.-Y. Chuang</p>	<p>9:00-9:30 OS14-24 <i>Keynote</i> Waterjet Droplet Impact Erosion and Peening <u>M. Hashish</u></p> <p>9:30-9:50 OS14-25 Numerical Analysis of Cavitation Cloud Shedding in a Submerged Water Jet <u>G. Peng</u>, Y. Oguma, S. Shimizu</p> <p>9:50-10:10 OS14-26 <i>Invited</i> Coupling Bubble and Material Dynamics to Model Cavitation Peening and Pitting <u>G. L. Chahine</u>, C.-T. Hsiao, A. Kapahi, J.-K. Choi</p> <p>10:10-10:30 OS14-27 - OS14-32 <i>Poster Presentatoin</i></p>	<p>9:30-(10:50) OS16-24 - OS16-47 <i>Short Oral Presentation</i></p>	<p>9:00-10:30 CRF-1 - CRF-29 <i>Short Oral Presentation</i></p>	<p>9:00-9:20 OS2-13 Comparison of Gas Combustion Methods using Combustion Burner and Cyclone Vortex Burner <u>K. Shtym</u>, T. Soloveva</p> <p>9:20-9:40 OS2-14 Large-eddy Simulation of In-cylinder Flow in an EGR Stratified Combustion Diesel Engine <u>Z. Shen</u>, W. Cui, Z. Liu, J. Tian, S. Wu, J. Yang</p> <p>9:40-10:00 OS2-15 Dynamics of Bluff-body-stabilized Lean Premixed Syngas Flame in a Meso-scale Channel <u>B. J. Lee</u>, Y. J. Kim, H. G. Im</p> <p>10:00-10:20 OS2-16 Comparing of the Calculated and Experimental Parameters in a Cyclone-vortex Chamber <u>S. Golovaty</u></p>	<p>9:00-9:20 GS1-5 Application of Genetic Algorithm for the Optimization of Inflow Pumping Station in Wastewater Treatment Plants <u>W.-L. Chen</u>, W.-S. Fu, C.-H. Lu, H.-T. Chao</p> <p>9:20-9:40 GS1-6 Power Disaggregation Through a Single-sensor Smart Meter by Data Analysis Methods <u>P. J. Huang</u>, W. S. Fu, C. H. Lu, H. Y. Chung</p> <p>9:40-10:00 GS1-7 Study of Operation Period for a Pressure Swing Adsorption System <u>Y.-C. Chu</u>, L.-C. Weng, P.-C. Tseng, N.-C. Chang, C.-C. Wang</p>	<p>9:00-10:00 OS8-1 <i>Invited</i> Evaluation Techniques for Optical Analysis of Hybrid Rocket Propulsion <u>M. Kobald</u>, A. Petrarolo</p> <p>10:00-10:30 OS8-2 Fuel Regression Characteristics of the Swirling-Oxidizer-Flow-Type Hybrid Rocket Engine <u>T. Sakurai</u>, S. Yuasa, H. Ando, K. Kitagawa, T. Shimada</p>	<p>9:00-9:45 OS4-4 <i>Invited</i> Blood Velocity Impact on the Modelling of Thrombus within an Intracranial Aneurysm <u>G. Courbebaisse</u>, Y. Zhang, K. Z. Boudjeltia, B. Chopard</p> <p>9:45-10:05 OS4-5 Numerical Analysis of Ultrasound Scattering Property of Medium Mimicking Blood (Influence of Ultrasound Frequency) <u>Y. Chiba</u>, T. Hayase, S. Miyauchi, K. Funamoto</p> <p>10:05-10:25 OS4-6 Flow In Low-Specific Speed Centrifugal Blood Pumps With Newtonian And Non-Newtonian Fluids <u>K. Sakagami</u>, K. Higashitsutsumi, K. Fukudome, Y. Ogami</p>	<p>9:30-10:00 OS10-1 <i>Invited</i> Investigation on Phonon Coherence for Heat Conduction Control <u>T. Shiga</u>, J. Shiomi</p> <p>10:00-10:30 OS10-2 <i>Invited</i> Molecular Dynamics Mechanism of Quantum Effect on the Thermodynamic and Transport Properties of Hydrogen <u>H. Nagashima</u>, S. Tsuda, N. Tsuboi, A. K. Hayashi, T. Tokumasu</p>		
<p>BREAK</p>										

Wednesday, October 28, 2015

MEETING ROOM 1	MEETING ROOM 2	SAKURA2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7	MEETING ROOM 8	SHIRAKASHI
<p>10:40</p> <p>OS13: Complex Thermofluid System <i>Chair: L.-C. Hsu</i></p>	<p>OS14: International Workshop on Cavitation Peening and Related Phenomena <i>Chair: O Takakuwa</i></p>	<p>OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics <i>Chair: T. Kogawa</i></p>	<p>OS17: IFS Collaborative Research Forum (AFI-2015) <i>Chair: S. Uehara</i></p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" <i>OS2-V Chair: N. I. Kim</i></p>	<p>GS1: General Session Fluid Systems / Heat Transfer <i>Chair: A. Komiya</i></p>	<p>OS8: Flow Dynamics and Combustion Technology in Hybrid Rocket Propulsion New Concepts I <i>Chair: M. Motoe</i></p>	<p>OS4: Medical Flow Dynamics</p>	<p>OS10: Science and Technology of Nanoscale Heat Transfer and Outlook for their Application <i>Chair: T. Shiga</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>	<p>OS19: Global / Local Innovations for Next Generation Automobiles (Joint Session)</p>
<p>10:40-11:00 OS13-21 <i>Invited</i> Hybrid Simulation of Behavior of Particles in MR Fluids <i>Y. Ido, H. Tsutsumi</i></p> <p>11:00-11:15 OS13-22 Influence of Korteweg Stress on the Miscible Viscous Fingering Instability including Double Diffusive Effects <i>S. Pramanik, H. C. Kuhlmann, M. Mishra</i></p> <p>11:15-11:30 OS13-23 Enhancement of Heat Transfer of Mixed Convection in a Channel by an Adjustable Inlet Boundary <i>W.-S. Chao, W.-S. Fu</i></p> <p>11:30-11:45 OS13-24 Enhancement of Cooling Performance for Arrays of Block Heat Sources Mounted on the Wall of a 3-D Cabinet <i>J.-C. Cheng, Y.-L. Tsay, C.-H. Yang</i></p> <p>11:45-12:00 OS13-25 Numerical Study of Wall Roughness Effect on Gas Flow in Adiabatic Microchannel <i>C. C. Tai, P. Y. Tzeng, C. Y. Soong</i></p>	<p>10:40-11:00 OS14-33 <i>Invited</i> ImPACT: A Five-year National Program to Realize Ultra-compact Power Lasers and Applications <i>Y. Sano, T. Miura</i></p> <p>11:00-11:20 OS14-34 <i>Invited</i> Technical Basis and Requirements for Mitigating PWSCC by Surface Stress Improvement <i>P. Crooker, G. White, K. Schmitt, K. Fuhr, M. Burkardt, J. Gorman</i></p> <p>11:20-11:40 OS14-35 Various Conditions for Impulse Force on Solid Wall by a Fiber-type Laser Induced Bubble <i>Y. Yamanishi, Y. Sugimoto, K. Sato</i></p> <p>11:40-12:00 OS14-36 Mechanical Surface Treatment of Duralumin by Laser Cavitation <i>Y. Ueno, H. Soyama</i></p> <p>12:00-12:10 OS14-37 - OS14-39 <i>Poster Presentation</i></p>	<p>(10:50-12:30) OS16-24 - OS16-47 <i>Poster Presentation</i></p>	<p>10:40-12:10 CRF-30 - CRF-56 CRF-R1 <i>Short Oral Presentation</i></p>	<p>10:40-11:00 OS2-17 Fundamental Study on the Effects of Local Schmidt Number of Lifted Flames <i>M.-K. Jeon, M. J. Lee, Y. Jung, N. I. Kim</i></p> <p>11:00-11:20 OS2-18 Numerical Simulation of a Piloted Diffusion Flame with a Flamelet Approach <i>J. Kim, B. J. Lee, H. G. Im, I.-S. Jeung</i></p> <p>11:20-11:40 OS2-19 Flame Propagation in the Flow of Combustion Mixture through the Converging Microchannel <i>T. Miroshnichenko, S. Minaev</i></p> <p>11:40-12:00 OS2-20 The Methodology for Construction of Simple Combustion Reaction Mechanisms Using Micro Flow Reactor with a Controlled Temperature Profile <i>S. Onishi, H. Nakamura, K. Maruta</i></p>	<p>10:40-11:00 GS1-8 Develop and Analyze the Performance of the Oil Separator in Organic Rankine Cycle <i>T.-L. Chiu, C.-C. Wang</i></p> <p>11:00-11:20 GS1-9 Visualization of Particle Motion due to a Solitary Wave Passing through a Barrier <i>C.-H. Chang</i></p> <p>11:20-11:40 GS1-10 Three Dimensional Simulation for Flow and Heat Transfer of Line Concentration Solar Receiver <i>T. Yoshida, G. Hujisawa, K. Matsubara</i></p> <p>11:40-12:00 GS1-11 Solar Thermal Concentration by Particle Flow with Organized Circulation <i>K. Abe, K. Matsubara, Y. Kazuma, T. Suzuki, A. Sakurai, T. Kodama</i></p>	<p>10:40-11:10 OS8-3 Investigation of Ram Propulsion Concept using Hybrid Rocket Technology <i>Y.-S. Chen, J.-W. Lin, S.-S. Wei, A. Lai, J.-S. Wu</i></p> <p>11:10-11:40 OS8-4 Numerical and Experimental Investigation of a Compact Hybrid Rocket Engine <i>G.-R. Lai, T.-H. Chou, J.-S. Wu, Y.-S. Chen</i></p>	<p>10:40-11:25 OS4-7 <i>Invited</i> Body-fluid Permeable Nanofibrous Materials for Corneal Stromal Regeneration <i>H. Kobayashi</i></p> <p>11:25-11:45 OS4-8 Observation of Cell Migration Dependent on Cellular Adhesion Molecules in Culture Model <i>T. Watanabe, H. Xiaobo, H. Kobayashi, M. Ohta</i></p> <p>11:45-12:05 OS4-9 Numerical Reproduction of Hemodynamic Change Induced by Acupuncture Needle Stimulation to Taichong (LR-3) -Modification of Boundary Conditions for Quantitative Agreement with Experimental Data - <i>T. Suzuki, A. Shirai, T. Seki</i></p> <p>12:05-12:25 OS4-10 Development of a New Catheter with Innovative Concepts for Selective Venous Sampling - Preliminary CFD Study <i>T. Kinoshita, K. Seiji, K. Takase, T. Watanabe, S. Matsumoto, M. Ohta</i></p>	<p>10:40-11:10 OS10-3 <i>Invited</i> Heat Transfer in Phononic Crystal Nanostructures and Thermoelectric Applications <i>M. Nomura</i></p> <p>11:10-11:30 OS10-4 Effect of Random Movements of Nanoparticles for Heat Transfer Enhancement in Nanofluids by Molecular Dynamics Simulation <i>W. Cui, Z. Shen, J. Yang, S. Wu</i></p> <p>11:30-11:50 OS10-5 Molecular Dynamics Simulation on the Microscopic Mechanisms of Thermal Conductivity Enhancement with Nanofluids <i>W. Cui, Z. Shen, J. Yang, S. Wu</i></p> <p>11:50-12:10 OS10-6 Development of MEMS-Based Thermal Triple-Axis Accelerometer <i>N. Murakita, Y. Ogami, K. Fukudome</i></p>	<p>Session 3 <i>Chair: Y. Okamoto, E.-C. Shin</i></p> <p>10:40-11:00 OS15-10 Determination of Fracture Properties in Ion and Mixed Conducting Ceramics under Controlled Conditions <i>R. Muraoka, T. Taguchi, S. Watanabe, K. Sato, T. Hashida</i></p> <p>11:00-11:20 OS15-11 Effects of crystal orientation to electromotive force of LiCoO₂ under mechanical stress <i>M. Fakkao, Y. Kimura, T. Nakamura, N. Kuwata, J. Kawamura, T. Kawada, K. Amezawa</i></p> <p>11:20-11:40 OS15-12 Polyelectrolyte gel membrane with enhanced mechanical properties <i>H.-R. Lee, J.-Y. Sun</i></p> <p>11:40-12:00 OS15-13 Investigation of Mechanical properties of SOFC Electrolytes at High temperature <i>T. Kori, Y. Kimura, K. Yashiro, S. Hashimoto, T. Kawada</i></p>	<p>10:40-11:10 OS19-1 Electrochemical Technologies for the Mature Transportation and Energy Industry of the Future <i>M. C. Williams</i></p> <p>11:10-11:40 OS19-2 Future Role of Safety Testing Technology in Vehicle Design and Development and Highway Safety <i>C.-D. Kan</i></p> <p>11:40-12:10 OS19-3 Gyroscopes for Autonomous Cars <i>S. Tanaka</i></p> <p>****Any participants in ICFD2015 can attend the International Conference "Global/Local Innovations for Next Generation Automobiles" subsequently held at SHIRAKASHI</p>
<p>12:10</p> <p>LUNCH</p>			<p>12:10-13:10 CRF-1 - CRF-56, CRF-R1 <i>Lunch and Poster Session</i></p>	<p>LUNCH</p>			<p>12:10</p>			

Wednesday, October 28, 2015

MEETING ROOM 1	MEETING ROOM 2	SAKURA2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7	MEETING ROOM 8
<p>13:10</p> <p>OS13: Complex Thermofluid System <i>Chair: Y.-S. Liu</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>	<p>OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics <i>Chair: T. Shiroto</i></p>	<p>OS17: IFS Collaborative Research Forum (AFI-2015) <i>Chair: D. Yoshino</i></p>		<p>GSI: General Session Heat Transfer <i>Chair: H.Nakamura</i></p>	<p>OS8: Flow Dynamics and Combustion Technology in Hybrid Rocket Propulsion New Concepts 2 <i>Chair: K. Sawada</i></p>	<p>OS4: Medical Flow Dynamics</p>	<p>OS10: Science and Technology of Nanoscale Heat Transfer and Outlook for their Application <i>Chair: S. Tsuda</i></p>	<p>SS1: Liaison Office Session <i>Chair: T. Takagi</i></p>
<p>13:10-13:30 OS13-26 <i>Invited</i> Pool Boiling Heat Transfer Performance on Open Trapezoidal Channel Surfaces <i>P. A. Subrahmanya, C.-Y. Yang</i></p> <p>13:30-13:45 OS13-27 Role of Degree of Freedom for Thermal Convection in a Closed Loop <i>K. Mimura</i></p> <p>13:45-14:00 OS13-28 Effect of Groove Surface Wettability on Boiling inside Flat-Plate Heat Pipe <i>M. Ogasawara, S. Yanagisawa, T. Ito, S. Yamashita, T. Bessho, Y. Tsuji</i></p> <p>14:00-14:15 OS13-29 Experimental Study of Flash-boiling Spray Cooling for Thermal Control with a Cold plate Loop <i>C. Peng, Y. Li, X. Xu, X. Liang</i></p> <p>14:15-14:30 OS13-30 Toward A Unified Formulation of Incompressible Multi-Fluid Models <i>Y.-Y. Niu, C.-H. Weng</i></p>	<p>Session 4 <i>Chair: R. A. Budiman, D. T. Nguyen</i></p> <p>13:00-13:20 OS15-14 Numerical study of heat transfer from fractured geothermal reservoirs for the design of reinjection <i>M. Asaki, S. Kondoh, T. Hashida</i></p> <p>13:20-13:40 OS15-15 Preferred in-plane orientation in palladium decoration on graphene oxide: microstructures and the influence on electrical properties <i>B. R. Lee, J.-M. Jeon, Y. R. Choi, Y.-S. Shim, K. T. Hong, J. Jo, M. Kim, H. W. Jang</i></p> <p>13:40-14:00 OS15-16 Effect of CO₂ sorption on flow behavior in simulated injection experiments for development of CO₂ geological storage technology <i>S. Echizen, T. Takase, T. Hashida</i></p> <p>14:00-14:20 OS15-17 High performance humidity sensor based on MoS₂/reduced graphene oxide hybrid composites <i>S. Y. Park, H. W. Jang</i></p>	<p>13:10-(14:20) OS16-48 - OS16-69 <i>Short Oral Presentation</i></p> <p>(14:20-16:00) OS16-48 - OS16-69 <i>Poster Presentation</i></p>	<p>13:10-14:40 CRF-57 - CRF-84 <i>Short Oral Presentation</i></p>		<p>13:10-13:30 GS1-12 Development of a New Cooling System Using Phase Change Material and Heat pipes for Thermal Management of Power Battery of Electric Vehicles <i>K. Kudo, T. Yamada, T. Koshiyama, S. Tanabe, M. Yoshikawa, T. Yamada, N. Ono</i></p> <p>13:30-13:50 GS1-13 Enhancement of Pool Boiling Heat Transfer on High Density Cavity Pattern <i>S. Yanagisawa, M. Ogasawara, T. Ito, Y. Tsuji, S. Yamashita, T. Bessho, M. Orihashi</i></p> <p>13:50-14:10 GS1-14 Innovative Design of Thermal Management Structure for LED Bulbs <i>K.-Y. Cheng, C.-C. Wang</i></p> <p>14:10-14:30 GS1-15 Heat Convection in a Square Enclosure with a Rotating Flat Plate <i>S.-L. Lee, J.-B. Chiou</i></p>	<p>13:10-13:40 OS8-5 Launch-Cost Reduction via "Delethalizing" Rocket Propulsion <i>T. Shimada</i></p> <p>13:40-14:00 OS8-6 The Mission planning for A-SOFT Hybrid Rocket Flight Demonstration Project <i>T. Usuki, K. Kitagawa, T. Shimada</i></p> <p>14:00-14:30 OS8-7 System Requirement Analysis for A-SOFT Hybrid Rocket Flight Demonstration <i>A. Takahashi, K. Kitagawa, T. Usuki, T. Shimada</i></p>	<p>13:10-13:30 OS4-11 Fundamental Study of Interaction between Erythrocyte and Endothelial Cell under Inclined Centrifugal Force (Physical Explanation of Interaction Model) <i>A. Yatsuyanagi, T. Hayase, S. Miyauchi, K. Funamoto, K. Inoue, A. Shirai, L. Brandt</i></p> <p>13:30-13:50 OS4-12 Evaluation Methods of Metastatic Lymph Node and Its Treatment using Intranodal Pressures <i>K. Takeda, S. Mori, T. Kodama</i></p> <p>13:50-14:10 OS4-13 Lymphatic Delivery of Exogenous Molecules into Lymph Nodes via Lymphatic Vessels with Nano/microbubbles and Ultrasound <i>S. Yoshida, S. Kato, S. Mori, T. Kodama</i></p> <p>14:10-14:30 OS4-14 Drug Delivery System via Lymphatic Network using Nano/microbubbles and Ultrasound <i>A. Tada, S. Yoshida, S. Kato, S. Mori, T. Kodama</i></p>	<p>13:50-14:20 OS10-7 <i>Invited</i> Molecular Dynamics Study on the Microscopic Force Balance at the Solid-Liquid Interface <i>Y. Yamaguchi, D. Surblys, E. Arakaki, Y. Furuta, S. Nakaoka</i></p> <p>14:20-14:40 OS10-8 Atomistic Simulations of Contact Line and Contact Angle Dynamics of Nanodroplets during Evaporation on Heated Surfaces <i>J. Zhang, F. Müller-Plathe, F. Leroy</i></p>	<p>Young researchers can grab a global-Collaboration opportunity through the Liaison office</p> <p><i>M. Yamaguchi, A. Vasiliev, V. Timchenko, N. I. Kim, J. Ahn, M. P. Favre, T. Hayase, M. Ohta</i></p> <p>Discussion</p>
<p>14:40</p> <p>BREAK</p> <p>14:40</p>									

Wednesday, October 28, 2015

14:50

14:50

MEETING ROOM 1	MEETING ROOM 2	SAKURA2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7	MEETING ROOM 8
<p>OS13: Complex Thermofluid System Chair: C.-Y. Yang</p>	<p>GS1: General Session Microflows Chair: S. Uehara</p>	<p>OS16: The 11th International Students / Young Birds Seminar on Multi-scale Flow Dynamics Chair: T. Shiroto</p>	<p>OS17: IFS Collaborative Research Forum (AFI-2015) Chair: N. Ochiai</p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-VI Chair: H. Im</p>	<p>GS1: General Session Heat Transfer Chair: Y. Iwamoto</p>	<p>OS8: Flow Dynamics and Combustion Technology in Hybrid Rocket Propulsion Characterization 2 Chair: T. Sakurai</p>	<p>OS7: International Symposium on Medical Thermo Fluid Science for Progress in Quality of Life Chair: S. Maruyama</p>	<p>OS10: Science and Technology of Nanoscale Heat Transfer and Outlook for their Application Chair: J. Cannon</p>	<p>OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving Chair: C. Boller J. Qiu</p>
<p>14:50-15:10 OS13-31 <i>Invited</i> Numerical Simulation for a Phase Change Problem during Laser Melting Process Y.-H. Liu, W.-C. Huang, T.-W. Tsai, C.-S. Chuang, S.-H. Liu</p> <p>15:10-15:25 OS13-32 Estimation of a Parameter in a Combined Mode Heat Transfer in a Two Layered 2D-Axisymmetric Porous Matrix V. K. Mishra, S. C. Mishra, D. N. Basu</p> <p>15:25-15:40 OS13-33 2-D Homogeneous Particle Deposition on a Chip A.-C. Shih, C.-J. Han, Y.-C. Cheng</p> <p>15:40-15:55 OS13-34 Analyses on the Cooling Loops Driven by Thermoelectric Power for Spacecraft Thermal Control S. Chen, X. Xianghua, L. Xingang</p> <p>15:55-16:10 OS13-35 The Simulation of Batch-feeding Solid Fuel Burning in a Hot Furnace with an Injection of Oxygen J.-S. Wang, J.-Y. Huang, S.-Y. Hsu, C. H. Tsai, Y.-C. Liu</p>	<p>14:50-15:10 GS1-16 Gas Molecules Transport in Graphene Nanopore C. Sun, B. Bai</p> <p>15:10-15:30 GS1-17 Improvement of Mini-channel Gas Separator Utilizing Soret Effect T. Higurashi, K. Matsumoto, T. Owada, S. Matsumoto, S. Watanabe, N. Ono</p> <p>15:30-15:50 GS1-18 Heat and Moisture Transfer in a Membrane Channel with Membrane Fins J. Duan, J. Min</p>	<p>(14:20-16:00) OS16-48 - OS16-69 <i>Poster Presentation</i></p>	<p>14:50-15:25 CRF-85 - CRF-R5 <i>Short Oral Presentation</i></p> <p>15:30-16:20 CRF-57 - CRF-R5 <i>Poster Session</i></p>	<p>14:50-15:10 OS2-21 Parametric Study of Heat-recirculating Microcombustor for Thermoelectric Power Generation R. Paul, A. Katoch, S. Minaev, S. Kumar</p> <p>15:10-15:30 OS2-22 Numerical Optimization in 2D Combustion Problems G. Alekseev, D. Tereshko</p> <p>15:30-15:50 OS2-23 Maximal Efficiency of Combustion Systems with Countercurrent Heat Exchanger I. Terletsii, S. Minaev, K. Maruta</p> <p>15:50-16:10 OS2-24 Perovskite Reactor Membranes for Oxy-Fuel Combustion Processes R. Falkenstein-Smith, J. Ahn</p>	<p>14:50-15:10 GS1-19 Effect of Non-uniform Heating of Computer Rack on the Hot Air Circulation of a Miniaturized Datacenter B.-H. Lee, C. C. Huang, C.-C. Wang</p> <p>15:10-15:30 GS1-20 Simulation and Analysis of the Supercritical ORC Heat Exchanger Y.-M. Li, C.-C. Wang</p> <p>15:30-15:50 GS1-21 Effect of Condensation on Heat Transfer of Plastic Heat Exchangers M.-R. Chen, C.-C. Wang</p> <p>15:50-16:10 GS1-22 Numerical Analysis and Optimum Research on the Thermal Flow Field of Supercritical Carbon Dioxide and Configuration in Plate Heat Exchanger C.-X. Zhu, C.-C. Wang, Y.-C. Tang</p>	<p>14:50-15:20 OS8-8 Impact Prediction of Fuel Regression Rate of Hybrid Rocket in Altering Swirl Intensity by Numerical Analysis M. Motoe, T. Shimada</p> <p>15:20-15:40 OS8-9 BBM Tests of Thrust and O/F Control for A-SOFT Hybrid Rocket Flight Demonstration K. Ozawa, K. Kitagawa, T. Usuki, G. Mishima, T. Shimada</p> <p>15:40-16:10 OS8-10 Characteristics of Aluminized WAX-based Hybrid Rocket Fuels K. Takahashi, Y. Komori, H. Sato, I. Nakagawa, T. Shimada</p>	<p>14:50-15:20 OS7-1 <i>Invited</i> Interstitial Fluid Flow within the Lacunar-Canalicular System of the Mouse Femur Induced by Whole-body Vibration K. Kurata, H. Takamatsu</p> <p>15:20-15:35 OS7-2 Measurement of Flow Properties of Mammalian Blood Using Compact-sized Falling Needle Rheometer T. Suzuki, H. Yamamoto, K. Kawamura, E. Tamura, H. Aida, K. Wochner, R. Plasenzotti</p> <p>15:35-15:50 OS7-3 Combined Application of Photo-thermal Therapy and Water-cooling System for Treatment of Tumor-bearing Lymph Nodes D. Matsuki, J. Okajima, A. Komiya, S. Mori, S. Maruyama, T. Kodama</p> <p>15:50-16:05 OS7-4 Coupled Photon and Bioheat Transport Simulation for Laser Induced Photothermal Therapy A. Sakurai, Y. Sato, A. Komiya, J. Okajima, Y. Nakamura, S. Maruyama</p>	<p>14:50-15:20 OS10-9 <i>Invited</i> Molecular Dynamics Simulation of Liquid-Vapor Phase Transition and Its Asymptotic Analysis S. Tsuda</p> <p>15:20-15:40 OS10-10 Analysis of Molecular Transport in the Solid-liquid Interface Region based on the Kinetic Model J. Suzuki, G. Kikugawa, T. Nakano, T. Ohara</p> <p>15:40-16:00 OS10-11 Thermal Conductivity and Rectification of Asymmetric Silicene by Molecular Dynamic Simulation Y. Feng, X. Liang</p> <p>16:00-16:20 OS10-12 Molecular Dynamics Study on Thermal Properties of Borophene Y. Naruke, X.-G. Liang</p>	<p>14:55-15:00 Opening T. Takagi</p> <p>15:00-15:20 OS18-1 <i>Invited</i> Mode Analysis of Ultrasonic Testing using Magnetic Device and its Application to Inspection of Illumination Pillars E. Kojima, A. Miwa, H. Nakajima, A. Furusawa, H. Nakamoto</p> <p>15:20-15:40 OS18-2 The Current Progress in Research on Health Monitoring Methods for Laminated Composite Structures K. Xiong, J. Qiu, H. Ji, J. Cheng, K. Zhou, Y. Tian, C. Zhang, J. Zhao, H. Wang</p> <p>15:40-16:00 OS18-3 Characterization of Local Conductivity of Stress Corrosion Crack with DCPD Method W. Cai, S. Xie, C. Pei, Y. Li, Z. Chen</p> <p>16:00-16:20 OS18-4 Huge Electrostriction of PU Induced by Their Heterogeneous Microstructures G. Diquet, M. H. Jomaa, L. Seveyrat, L. Lebrun, K. Masenelli-Varlot, J.-Y. Cavaille</p>

Wednesday, October 28, 2015

								16:05-16:20 OS7-5 Development of Thermistor Probe utilizing Guard Heater for Precise Measurement of Skin Surface Temperature <i>T. Okabe, J. Okajima, A. Komiya, S. Maruyama</i>			
16:20	BREAK										16:20
16:30	MEETING ROOM 1	SAKURA KITCHEN	SAKURA2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 7	MEETING ROOM 8	16:30
	OS13: Complex Thermofluid System <i>Chair: C.-G. Li</i>	OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials		OS17: Fluids Science Research Award Lectures (AFI-2015) <i>Chair: S. Obayashi</i>	OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-VII Chair: H. Nakamura	GS1: General Session Multiphase Flow <i>Chair: S.-L. Lee</i>	OS8: Flow Dynamics and Combustion Technology in Hybrid Rocket Propulsion Characterization 3 <i>Chair: T. Shimada</i>		OS10: Science and Technology of Nanoscale Heat Transfer and Outlook for their Application <i>Chair: H. Nagashima</i>	OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving <i>Chair: G. Sebald K. Makihara</i>	
16:30-16:45 OS13-36	A New Program for the Application of Natural Convection in Practical Products <i>C. G. Li, M. Tsubokura</i>	OS15-18 - OS15-30 <i>Poster Session</i> ***Please note that OS15 session will be held in SAKURA KITCHEN (Katahira, Tohoku Univ.) during this time . ***	16:30-17:10 <i>Award Lecture</i> Aerodynamics in Real World / my Lessons Learned in Space Vehicle Studies <i>Y. Inatani</i>	16:30-16:50 OS2-25 Inverse Extremum Problems of Complex Heat Transfer Model <i>A. Chebotarev, A. Kovtanyuk</i>	16:30-16:50 OS2-26 Study and Practical Experience of Multiple-hole Centrifugal Atomizers <i>V. Upskiy, K. Shtym, M. Upskiy</i>	16:30-16:50 GS1-23 Nonlinear Acoustic Imaging using Parametric Array for Nondestructive Evaluation of Harbor Structure <i>K. Fujisawa, A. Asada</i>	16:30-16:50 OS8-11 Molding Characteristics of the Wax Fuel for a Hybrid Rocket <i>Y. Usui, I. Nakagawa</i>		16:30-17:00 OS10-13 <i>Invited</i> Characteristics of Molecular Structure that Cause Inter-relation of Thermo-physical Properties of a Glycol Solution <i>J. J. Cannon, T. Kawaguchi, T. Kaneko, T. Fuse, J. Shiomi</i>	16:30-16:50 OS18-5 <i>Invited</i> Multiscale, Multiphysics Computational Chemistry Methods for Smart Materials and Energy Harvesting <i>A. Miyamoto, P. A. Bonnaud, R. Miura, A. Suzuki, N. Miyamoto, N. Hatakeyama</i>	
16:45-17:00 OS13-37	Protein Immobilization in 3D PDMS Microfluidic Channel Using Multiphoton Absorption <i>C.-F. Lin, C.-F. Su, Y.-C. Cheng</i>		17:15-17:55 <i>Award Lecture</i> Microcombustion, its fundamentals and applications <i>K. Maruta</i>	16:50-17:10 OS2-26 Study and Practical Experience of Multiple-hole Centrifugal Atomizers <i>V. Upskiy, K. Shtym, M. Upskiy</i>	17:10-17:30 OS2-27 Effects of Cross-flow on Liquid Sheet Break-up and Droplet Diameters for Two-dimensional Air-blast Atomizer in High Pressure Environment <i>K. Kato, S. Suzuki, T. Kudo, S. Kato, M. Uchida, A. Hayakawa, H. Kobayashi</i>	16:50-17:10 GS1-24 Influence of Form Drag on the Stability of Mixed Convective Flow in a Vertical Annulus Filled with Porous Media <i>M. Bhowmik, P. Bera</i>	16:50-17:10 OS8-12 Nozzle Erosion Progress in Hybrid Rocket Firings <i>R. Kawabata, Y. Saito, S. Hirai, B. Camille, M. Wakita, T. Totani, H. Nagata</i>		17:00-17:20 OS10-14 Atomistic Heat Path Analysis of Heat Transfer in Chain Polymer Liquids <i>H. Matsubara, G. Kikugawa, T. Bessho, S. Yamashita, T. Ohara</i>	16:50-17:10 OS18-6 Metamagnetic Shape Memory Alloy Plate for Energy Harvesting Device <i>H. Miki, K. Tsuchiya, E. Abe, M. Ohtsuka, M. Gueltig, M. Ossmer, M. Kohl, T. Takagi</i>	
17:00-17:15 OS13-38	Parametric Studies on Flow Field of Proportional Valve <i>Y.-L. Chen, T.-H. Shieh, C.-L. Yeh, H.-T. Lin, P.-C. Yu, P.-H. Yu</i>			17:10-17:30 OS2-27 Effects of Cross-flow on Liquid Sheet Break-up and Droplet Diameters for Two-dimensional Air-blast Atomizer in High Pressure Environment <i>K. Kato, S. Suzuki, T. Kudo, S. Kato, M. Uchida, A. Hayakawa, H. Kobayashi</i>	17:10-17:30 GS1-25 Development of a New Analysis Method for Two Phases of Gas and Liquid Flow <i>K. Tsubogo</i>	17:10-17:30 GS1-25 Development of a New Analysis Method for Two Phases of Gas and Liquid Flow <i>K. Tsubogo</i>	17:10-17:30 OS8-13 Effects of Radiative Heat Transfer on Fuel Regression Rate of Hybrid Rocket <i>Y. Deguchi, K. Aono, Y. Kurosawa, T. Watanabe, T. Morita, Y. Usui, S. Yamaguchi</i>		17:20-17:40 OS10-15 Interfacial Properties of Binary n-Alkane Mixtures at the Liquid-Vapor Interfaces <i>H. K. Chilukoti, G. Kikugawa, T. Ohara</i>	17:10-17:30 OS18-7 Sources and Conversion Effects for Energy Harvesting and Design of Self-powered Devices <i>M. Lallart</i>	
17:15-17:30 OS13-39	Numerical Simulation of Transient Multiphase Field during Selective Laser Melting Manufacturing Process <i>T.-W. Tsai, W.-C. Huang, C.-S. Chuang, D.-Y. Lin, S.-H. Liu, J.-K. Chen</i>			17:30-17:50 OS2-28 Identification Problems for the Nonlinear Model of Convection-diffusion-reaction <i>R. Brizitskii, Z. Saritskaya</i>	17:30-17:50 GS1-26 Cylindrical Fluidized Receiver or High Temperature Solar Concentration <i>G. Fujisawa, H. Sakai, K. Matsubara, A. Sakurai, H.-S. Cho, N. Gokon, T. Kodama</i>	17:30-18:00 WRAP-UP					

Wednesday, October 28, 2015

17:30-17:45 OS13-40 A Numerical Study on the Performance of Pressurization Methods of Smoke Control System in the Two Storage Mock up Building <i>H. J. Shin, Y. S. Lee, J. S. Nam, H. S. Ryou</i>									17:30-17:50 OS18-8 Design and Application of Unsymmetrical Synchronized Switch Damping Systems <i>H. Ji, J. Qiu, L. Cheng, H. Nie</i>
18:00	BANQUET @ SAKURA								18:00
20:00									20:00

Thursday, October 29, 2015

MEETING ROOM 1	MEETING ROOM 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 8
<p>9:00 OS12: Advanced Control of Smart Fluids and Fluid Flows <i>Chair: Y. Fukunishi</i></p>	<p>OS11: Flow Realization, Measurement and Visualization <i>Chair: V.I. Menezes</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-11X <i>Chair: R. Fursenko</i></p>	<p>GS1: General Session Multiphase Flow <i>Chair: N. Ochiai</i></p>	<p>OS6: Advanced Physical Stimuli and Biological Responses <i>Chair: J.-S. Wu</i></p>	<p>GS1: General Session Non-linear Flow Dynamics <i>Chair: Y. Nishio</i></p>	<p>OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving <i>Chair: A. Combesure K. Ogawa</i></p>
<p>9:00-9:30 OS12-1 <i>Invited</i> Resonance and Lock-In by Flow-Acoustic Interaction in an Expansion Chamber-Pipe System <u>M. A. Langthjem</u>, M. Nakano</p> <p>9:30-9:50 OS12-2 The Rotating-disk Boundary Layer: with and without the Stationary Vortices <u>E. Appelquist</u>, P. Schlatter, P. H. Alfredsson, R. J. Lingwood</p> <p>9:50-10:10 OS12-3 A Vortical Axis Tracing and its Feature in Isotropic Homogeneous Turbulence K. Nakayama, H. Hasegawa</p> <p>10:10-10:30 OS12-4 Investigation of Relationships between Vortical Flow Topology and Pressure Minimum Feature in Isotropic Homogeneous Turbulence K. Nakayama, M. Ohno</p>	<p>9:00-9:18 OS11-1 Determination of Optimum Feedback Gain of Two-Dimensional Ultrasonic-Measurement-Integrated Blood Flow Analysis System <u>H. Kadowaki</u>, T. Hayase, K. Funamoto, S. Miyauchi, K. Inoue, T. Shimazaki, T. Jibiki, K. Miyama</p> <p>9:18-9:36 OS11-2 Zero-Dimensional Simulation of Internal and External Blood Flows of a Human Body <u>Y. Saito</u>, T. Hayase, S. Miyauchi</p> <p>9:36-9:54 OS11-3 Observation of fluid flow inside a heat pipe with wicks by PIV technique <u>H. Nakamura</u>, Y. Hoshi, R. Ueno, T. Yamada, N. Ono</p> <p>9:54-10:12 OS11-4 Development of Three-dimensional Temperature Measurement method of Airflow using Ultra-fine Fluorescent Wires <u>S. Funatani</u>, F. Matsuura, T. Takeda</p>	<p>Session 5 <i>Chair: I. Susuta, K. D. Yang</i></p> <p>9:00-9:20 OS15-31 Humidity and DC bias effects on AC characteristics of PCFC and PCEC with Y doped BaCeO₃ Electrolytes <u>H.-J. Song</u>, E.-C. Shin, S.-H. Moon, D.-C. Cho, J.-S. Lee</p> <p>9:20-9:40 OS15-32 Degradation of oxygen electrode in SOEC operation <u>H. Akabane</u>, K. Yashiro, S. Hashimoto, T. Kawada</p> <p>9:40-10:00 OS15-33 Hybrid Z-Scheme Using Photosystem I and BiVO₄ for Hydrogen Production <u>Y. Kim</u>, D. Shin, W. J. Chang, H. L. Jang, C. W. Lee, H.-E. Lee, K. T. Nam</p> <p>10:00-10:15 BREAK</p> <p>10:15-11:15 OS15-34 <i>Tutorial Lecture 2</i> Another Aspect of SOFC as Mechanical Structure <u>F. Iguchi</u></p>	<p>9:00-9:20 OS2-29 Performance Characteristics of Biogas Combustion with Various Compositions Inside PRB Based Domestic Cooking Stoves <u>S. Panigrahy</u>, Nirmal M. S., S. C. Mishra</p> <p>9:20-9:40 OS2-30 Filtration Combustion for Synthesis of Ceramics: the Effect of Forced Filtration on the Combustion Parameters <u>A. Maznov</u>, A. Kirdyashkin, R. Gabbasov, S. Minaev</p> <p>9:40-10:00 OS2-31 Stabilization of Filtration Combustion Wave in Counterflow System <u>S. Mokrin</u>, R. Fursenko, S. Minaev, S. Kumar</p> <p>10:00-10:20 OS2-32 X-ray During Combustion in Condensed Heterogeneous Systems <u>A. Kirdyashkin</u>, V. Salomatov, Y. Maksimov, V. Tarasenko, E. Sosnin, A. Panchenko, S. Minaev</p>	<p>9:00-9:20 GS1-27 Numerical Simulation of a Biomass Fluidized-bed Gasifier <u>Y.-T. Lin</u>, Y.-P. Chyou, P.-C. Chen, T. L. Jiang</p> <p>9:20-9:40 GS1-28 Numerical Analyses on Particle Focusing in Microchannel with Obstacle Arrays <u>H. Kumamaru</u>, M. Matsumiya</p> <p>9:40-10:00 GS1-29 Numerical Simulation of Deformation and Breakup of a Drop in Shear Flow using Front-Tracking Method <u>M. Razizadeh</u>, H. Shahin, S. Mortazavi</p>	<p>Opening <i>T. Sato</i></p> <p>9:00-9:30 OS6-1 <i>Invited</i> Cold Atmospheric Plasma for Medical Applications <u>T. Shimizu</u>, J. L. Zimmermann, G. E. Morfill</p> <p>9:30-10:00 OS6-2 <i>Invited</i> Observation of Mechanical Responses of Mineral and Organic Phases in Bone Tissue by Raman Spectroscopy <u>M. Todoh</u>, S. Tadano</p> <p>10:00-10:30 OS6-3 <i>Invited</i> Effects of Cold Plasma on Human Dental Pulp Stem Cells <u>Y.-C. Cheng</u>, C.-Y. Lin, T.-W. Chen, B.-Y. Chen, C.-Y. Chen, C.-D. Liu, M.-C. Wu, J.-S. Wu, M.-H. Chen</p>	<p>9:00-9:20 GS1-30 Linear Stability Analysis of Two-dimensional Taylor-Green Vortices in a Stratified Fluid <u>S. Suzuki</u>, M. Hirota, Y. Hattori</p> <p>9:20-9:40 GS1-31 Variational Stability Criteria for Stratified Shear Flows <u>M. Hirota</u>, P. J. Morrison</p> <p>9:40-10:00 GS1-32 Experimental Study of Coherent Structures in Wall Bounded Flow <u>A. Nasuno</u>, Y. Wada, Y. Tsuji, T. Ito</p> <p>10:00-10:20 GS1-33 Intermittent Flow Structure of the Turbulent Channel Flows at Low Reynolds Number under Stably Stratification <u>K. Fukudome</u>, S. Yamasaki, Y. Ogami</p>	<p>9:50-10:30 OS18-9 <i>Invited</i> Microstructure and Mechanical Properties Evolution of Biomedical Co-Cr-Mo Alloys Produced by Electron Beam Additive Manufacturing <u>A. Chiba</u>, Y. Koizumi, S. Sun, S. Kurosu</p>
<p>10:30 BREAK 10:30</p>							

Thursday, October 29, 2015

MEETING ROOM 1	MEETING ROOM 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 8
<p>OS12: Advanced Control of Smart Fluids and Fluid Flows <i>Chair: M. Langthjem</i></p>	<p>OS11: Flow Realization, Measurement and Visualization <i>Chair: T. Yamagata</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>	<p>OS2: The Third International Symposium on Innovative Energy Research II: Modern Combustion Research co-held with Third International Conference "Dynamics and Structure of Combustion Waves" OS2-IX <i>Chair: E. Fernandez-Tarrazo</i></p>	<p>GS1: General Session Aerodynamics <i>Chair: K. Shimoyama</i></p>	<p>OS6: Advanced Physical Stimuli and Biological Responses <i>Chair: T. Kaneko</i></p>	<p>GS1: General Session Non-linear Flow Dynamics <i>Chair: K. Fukudome</i></p>	<p>OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving <i>Chair: A. Combescure K. Ogawa</i></p>
<p>10:40-11:00 OS12-5 Experimental and Direct Computation Study on Flow-Acoustic Interaction of a Hole Tone with a Tail Pipe <i>K. Matsuura, M. Nakano</i></p> <p>11:00-11:20 OS12-6 Analysis of Thermal Convection inside an Oscillating Cube using Proper Orthogonal Decomposition <i>M. Nobuhara, K. Tatsumoto, H. Tanigawa, K. Hirata</i></p> <p>11:20-11:40 OS12-7 Numerical Study of Effective Operating Mode of Actuators for Tollmien-Schlichting Wave Control <i>T. Oku, Y. Nishio, S. Izawa, Y. Fukumishi</i></p> <p>11:40-12:00 OS12-8 Study of Local Flow Topology in Transition into Vortical Flow <i>K. Nakayama, L. D. Mizushima</i></p>	<p>10:40-10:58 OS11-5 Effect of Surface Roughness on the Heating Rates of Reentry Vehicles <i>K. J. Irimpan, V. Menezes</i></p> <p>11:00-11:20 <i>Short Presentation</i> OS11-6 - OS11-9</p> <p>11:20-12:10 <i>Poster Session</i> OS11-6 - OS11-9</p>	<p>10:15-11:15 OS15-34 <i>Tutorial Lecture 2</i> Another Aspect of SOFC as Mechanical Structure <i>F. Iguchi</i></p> <p>11:15-11:30 BREAK</p> <p>Session 6 <i>Chair: M. Takeda, I. Lee</i></p> <p>11:30-11:50 OS15-35 Investigation on Carbon Deposition and Expansion in Ni-YSZ Cermet <i>Y. Shinomiya, N. Ohmura, T. Nakamura, K. Amezawa</i></p> <p>11:50-12:10 OS15-36 Oxygen Transport Membrane <i>P. T. Linh, J.-S. Lee</i></p> <p>12:10-12:30 OS15-37 Suppression effect of carbon deposition on Ni by coexisting oxides <i>M. Haga, S. Hashimoto, K. Yashiro, T. Kawada</i></p>	<p>10:40-11:00 OS2-33 Combustion Characteristics of Ultra Lean Methane Flames in a Micro Flow Reactor with a Controlled Temperature Profile <i>T. Kobayashi, J. Liu, H. Nakamura, T. Tezuka, S. Hasegawa, K. Maruta</i></p> <p>11:00-11:20 OS2-34 Stability and Pulsating Dynamics of Deflagration Waves in the Model with Competitive Exothermic-Endothermic Reactions <i>V. Gubernov, A. Kolobov, A. Polezhaev, H. Sidhu, A. McIntosh, J. Brindley</i></p> <p>11:20-11:40 OS2-35 Study on the Ignition Properties of Ultra Lean PRF/Air Mixtures by Weak Flames in a Micro Flow Reactor with Controlled Temperature Profile <i>P. Grajetzki, H. Nakamura, T. Tezuka, S. Hasegawa, K. Maruta</i></p> <p>11:40-12:00 OS2-36 Effect of Equivalence Ratio on Rich Flames and Sooting Behavior of Methane and Ethane using a Micro Flow Reactor with a Controlled Temperature Profile <i>A. K. Dubey, T. Tezuka, S. Hasegawa, H. Nakamura, K. Maruta</i></p>	<p>10:40-11:00 GS1-34 Numerical Investigation of Aerodynamic Characteristics of a Roof from the point of Venturi Effect and Wind-Blocking Effect <i>Y. Nakakuki, S. Takahashi</i></p> <p>11:00-11:20 GS1-35 A Low Frequency Calibration Device for Pressure Sensitive Paint <i>M. Pastuhoff, Y. Sugioka, K. Asai</i></p> <p>11:20-11:40 GS1-36 Performance Evaluation of Flapping Flight of Elastic Wing Using Parallel Partitioned FSI Method <i>S. Yoshimura, T. Yamada, G. Hong</i></p> <p>11:40-12:00 GS1-37 Investigation of a Flow in Dolphin Drafting by Computational Fluid Dynamics <i>S. Nara, M. Miyake, S. Takahashi, Y. Inada, M. Sakai, T. Morisaka</i></p>	<p>10:40-11:25 OS6-4 <i>Keynote Lecture</i> Cellular Nanoscience and Exercise-induced Health Benefits <i>M. Kanazaki, H. Hatakeyama</i></p> <p>11:25-12:10 OS6-5 <i>Keynote Lecture</i> Effect of Extracellular Matrix on Smooth Muscle Cell Phenotype and Migration <i>T. Ohashi, Y. Hagiwara</i></p> <p>11:20-11:40 GS1-40 Conservation-Law Approach on Transition in Pipe Flow <i>T. Kanda</i></p> <p>11:40-12:00 GS1-41 Turbulent Rayleigh-Bénard Convection in a 2-D Thermal Cavity using Regularized Lattice Boltzmann Method <i>P. Kumar, S. C. Mishra</i></p>	<p>10:40-11:00 GS1-38 Characteristics of Rotating Magneto-hydrodynamic Turbulence at Different Latitudes <i>R. Yamamoto, M. Hirota, Y. Hattori</i></p> <p>11:00-11:20 GS1-39 The Analysis of Shear Stress Fluctuation in Pipe Flow by Electrochemical Method <i>T. Tong, K. Kamiya, T. Tsuneyoshi, T. Ito, Y. Tsuji</i></p>	<p>10:40-11:00 OS18-10 SPH Implementation Of Adhesive Forces: Adhesion Of Elastic Bodies And Cold Spray Prediction <i>A. Combescure, P. Profizzi, K. Ogawa</i></p> <p>11:00-11:20 OS18-11 Reliability Improvement of Layered Solid Oxide Fuel Cells <i>K. Sato, T. Hashida</i></p> <p>11:20-11:40 OS18-12 Development of New Bond Coat Materials for Efficiency Improvement of Gas Turbine Plants <i>K. Ogawa, S. Hatta, M. Oikawa, T. Tatsuki, H. Yamazaki</i></p> <p>11:40-12:00 OS18-13 Porous Titanium Alloys Elaborated by EBM with an Optimized Microstructure <i>D. Fabrègue, J. A. C. Aixa, A. Chiba</i></p>
<p>LUNCH</p>							

10:40

10:40

12:10

12:10

Thursday, October 29, 2015

MEETING ROOM 1	MEETING ROOM 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 8
<p>OS12: Advanced Control of Smart Fluids and Fluid Flows <i>Chair: R. Tao</i></p>	<p>OS11: Flow Realization, Measurement and Visualization <i>Chair: N. Fujisawa</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>		<p>GS1: General Session Aerodynamics <i>Chair: H. Nagai</i></p>	<p>OS6: Advanced Physical Stimuli and Biological Responses <i>Chair: T. Sato</i></p>	<p>GS1: General Session Compressible Flows <i>Chair: M. Sun</i></p>	<p>OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving <i>Chair: Y. Watanabe, J. Fontaine</i></p>
<p>13:10-13:40 OS12-9 <i>Invited</i> Magneto-mechanical Behavior of Magnetorheological Plastomer <i>X. Gong</i></p> <p>13:40-14:00 OS12-10 Field Observation and Flow Analysis of a Flying Pipe <i>T. Nakai, Y. Kida, T. Inoue, K. Hirata, H. Tanigawa</i></p> <p>14:00-14:20 OS12-11 Application of a High-Order LES Model to Study Separation Control Validation Test <i>D. Biswas, T. Jimbo</i></p> <p>14:20-14:40 OS12-12 A Rotational Brake with Shear Thickening Fluids <i>T. Tian, G. Peng, W. Li, A. Moriana, M. Nakano</i></p>	<p>13:10-13:46 OS11-10 <i>Invited</i> Pneumatic system analysis on air temperature change and air energy <i>T. Kagawa, C. Youm, S. Chen, H. Zhang</i></p> <p>13:46-14:04 OS11-11 Analysis of Surface Flow and Evaporation of the Liquid Film caused by Air Jet from a Slit <i>D. Shimano, S. Kitakaze, N. Ono</i></p> <p>14:04-14:22 OS11-12 Observation and modeling of air bubbles moving in mini channels <i>Y. Chinone, M. Hirano, N. Ono</i></p> <p>14:22 -14:40 OS11-13 Identification of Three-dimensional Vortical Flow Structure in a Spiral Vortex <i>K. Nakayama, L. D. Mizushima, J. Murata, T. Maeda</i></p>	<p>13:30-14:30 OS15-38 <i>Tutorial Lecture 3</i> Solid-state Lithium Batteries with Thin-Film Amorphous Electrolyte <i>N. Kuwata</i></p> <p>14:30-14:45 BREAK</p>		<p>13:10-13:30 GS1-42 PIV Measurement of Flow Field around Tandem Flapping Wings <i>K. Hirayama, N. Komata, W. Yamazaki</i></p> <p>13:30-13:50 GS1-43 Flow Measurement around a Straight Wing Vertical Axis Wind Turbine using PIV Method <i>Y. Nishio, T. Chiba, T. Shoda, S. Izawa, Y. Fukunishi</i></p> <p>13:50-14:10 GS1-44 Aerodynamic Design of a Tip-mounted Ducted Fan Propulsion System for the Small UAVs <i>H. Choi, M. Ryu, J. Kim, J. Cho</i></p> <p>14:10-14:30 GS1-45 Performance Prediction of an External Nozzle under Low Altitude Flight Condition <i>T. Isono, S. Tomioka, N. Sakuranaka</i></p>	<p>13:10-13:55 OS6-6 <i>Keynote Lecture</i> Nonthermal Plasma Hybrid Surface Treatment for Fluoropolymer Plastics (Toward Applications for Medical Devices, Biocompatible Materials, and Electronic Devices) <i>M. Okubo, T. Kuroki</i></p> <p>13:55-14:40 OS6-7 <i>Keynote Lecture</i> Plasma Stimuli for Enhancement of Cell Membrane Permeability <i>T. Kaneko, S. Sasaki, Y. Hokari, M. Kanzaki</i></p>	<p>13:10-13:30 GS1-46 Curvature of Shocks at Regular and Mach Reflection <i>S. Milder</i></p> <p>13:30-13:50 GS1-47 Investigations on Compressible Mixing Layers in Confined Ducts <i>S. M. V. Rao, S. Asano, I. Imani, M. Hirota, T. Saito</i></p> <p>13:50-14:10 GS1-48 Numerical Simulations of Free Jets from Square Supersonic Nozzles <i>S. Nakao, T. Muranaka, Y. Miyazato, M. Kashitani, Y. Yamaguchi</i></p> <p>14:10-14:30 GS1-49 Evolution of Disturbances in a Shock Layer on a Plate in Vibrationally Excited Gas Flows <i>S. Kirilovskiy, T. Poplavskaya, I. Tsyrunnikov</i></p>	<p>13:20-13:40 OS18-14 <i>Invited</i> Tribology of Engineered Surfaces: How Coatings and Texturation can Reduce Friction Losses? <i>V. Fridrici, P. Kapsa, G. Aurégan, N. Crisan</i></p> <p>13:40-14:00 OS18-15 Low Electrical Contact Resistance and Friction Behavior of Cu-DLC Nanocomposite Coating on Brass Substrate Sliding against Brass Ball <i>R. Hombo, T. Takeno, J. Fontaine, H. Miki, N. Kato, T. Nozu, N. Inayoshi, M. Belin, T. Takagi</i></p> <p>14:00-14:20 OS18-16 Nanointerface formation using Carbon-related Nanocomposite Coatings for Low Friction Mechanical Systems <i>T. Takeno, K. Ikoma, K. Adachi</i></p> <p>14:20-14:40 OS18-17 Effect of Surface Preparation on the Oxidation Rate of Ni-Cr Model Alloys in Superheated Steam <i>F. Hamdani, H. Abe, Y. Watanabe</i></p>
<p>BREAK</p>							

13:10

13:10

14:40

14:40

Thursday, October 29, 2015

MEETING ROOM 1	MEETING ROOM 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 8
<p>OS12: Advanced Control of Smart Fluids and Fluid Flows <i>Chair: X. Gong</i></p>	<p>OS11: Flow Realization, Measurement and Visualization <i>Chair: T. Hayase</i></p>	<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>		<p>GS1: General Session Fluid Flows in Material Science <i>Chair: H. Takana</i></p>	<p>OS6: Advanced Physical Stimuli and Biological Responses <i>Chair: M. Todoh</i></p>	<p>GS1: General Session Compressible Flows <i>Chair: S. Yonemura</i></p>	<p>OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving <i>Chair: J. Y. Cavaille T. Takagi</i></p>
<p>14:50-15:20 OS12-13 <i>Invited</i> Reducing Viscosity of Liquid Chocolate with Electric Field <i>R. Tao, H. Tang</i></p> <p>15:20-15:50 OS12-14 <i>Invited</i> Simultaneous Observations of Micro-Gap Flow Behavior and Micro-Structure of Electro-Rheological Nano-Suspensions <i>K. Tanaka, H. Kobayashi, M. Takasaki, M. Nakano</i></p> <p>15:50-16:20 OS12-15 <i>Invited</i> Development of a Tuned Mass Damper Working with MR Elastomers <i>S. Sun, J. Yang, W. Li, M. Nakano</i></p>	<p>14:50-15:08 OS11-14 Mass Transfer Phenomenon on Soluble Periodic Roughness <i>N. Fujisawa, K. Uchiyama, T. Nagasaki, T. Yamagata, M. Ogawa</i></p> <p>15:08-15:26 OS11-15 Effect of Large Scale Structure on Mass Transfer in Wall Turbulence <i>H. Ito, T. Tsuneyoshi, S. Feng, T. Ito, Y. Tsuji</i></p> <p>15:26-15:44 OS11-16 Analysis of the Effect of the Frozen Turbulent Hypothesis and its Applicability to Wall Turbulence <i>M. Sano, T. Tsuneyoshi, Y. Yamamoto, Y. Tsuji</i></p> <p>15:44-16:02 OS11-17 Measurement of the Wall Shear Stress by the Micro Hot-film Sensor in Wall Jet <i>K. Iwano, S. Muramatsu, Y. Sakai, Y. Ito, K. Nagata</i></p> <p>16:02-16:20 OS11-18 Spatiotemporal Structure of a Linear mode in a Turbulent Boundary Layer <i>A. Yokoi, M. Azmeer, H. Iori, M. Nagasaki, M. Matsubara</i></p>	<p>Session 7 <i>Chair: M. Fakkao, B. Koo</i></p> <p>14:45-15:05 OS15-39 Heterogeneous Metal Oxide Nanostructure for Efficient Solar Fuel Generator <i>M. G. Lee, H. W. Jang</i></p> <p>15:05-15:25 OS15-40 Electrical conduction behavior of anion conductors <i>S. Mizunuma, T. Nakamura, K. Amezawa</i></p> <p>15:25-15:45 OS15-41 From anti-oxidant to an energy storage material (Vitamin E battery) <i>S. Lee, J. Hong, K. Kang</i></p> <p>15:45-16:05 OS15-42 Microstructure changes of nickel during the low-temperature oxidation <i>Z. Fei, K. Yashiro, S. Hashimoto, T. Kawada</i></p> <p>16:05-16:20 BREAK</p>		<p>14:50-15:10 GS1-50 Theoretical Investigation of Multilayer Composite Solid-phase Synthesis Taking into Account the Melting of the Reactive Layer <i>K. Aligozhina, A. Knyazeva</i></p> <p>15:10-15:30 GS1-51 Revisited High-Energy Treatment of Thermal Plasma CVD Titania Coatings <i>O. P. Solonenko, Y. Ando, H. Nishiyama, A. A. Golovin, S. Uehara</i></p> <p>15:30-15:50 GS1-52 Feasibility of Micron-Sized Hollow Alumina Powder Production by Use of Low Power DC-RF Hybrid Plasma Flow System <i>O. P. Solonenko, H. Nishiyama, H. Takana, S. Uehara</i></p> <p>15:50-16:10 GS1-53 The Long and Short Range Magnetic Orders in Aluminosilicates <i>A. Koshelev, E. Zvereva, D. Chareev, A. Vymazalova, F. Laufek, E. Kovalchuk, B. Rahaman, T. Saha-Dasgupta, O. Volkova, A. Vasiliev</i></p>	<p>14:50-15:20 OS6-8 <i>Invited</i> Biomedical Applications of Argon-based Atmospheric-Pressure Plasma Jets <i>Z.-H. Lin, B.-R. Gu, K.-Y. Cheng, L.-H. Kuo, T. Wu, M.-C. Wu, J.-S. Wu, T.-K. Wu, Y.-B. Cheng, J.-Y. Wu, C.-F. Su, M.-T. Ho</i></p> <p>15:20-15:50 OS6-9 <i>Invited</i> Ionic and Quantum Sensing of Single Molecules in Liquids <i>K. Doi, S. Suwannawong, W. Qian, A. Yano, R. Nagura, S. Kawano</i></p> <p>15:50-16:20 OS6-10 <i>Invited</i> Contact Irreversible Electroporation for a Less-Invasive Tissue Ablation <i>K. Kurata, H. Takamatsu</i></p>	<p>14:50-15:10 GS1-54 Numerical Simulation of Transonic Cascade Flows in a Supercritical State <i>T. Furusawa, H. Miyazawa, S. Yamamoto</i></p> <p>15:10-15:30 GS1-55 Flow Characteristics of Pressurized High Temperature Hydrocarbon fuel in a Space Propulsion System <i>M. Soejima, K. Nojima, N. Kubo, S. Ishizaki, S. Tomioka, N. Sakuranaka</i></p> <p>15:30-15:50 GS1-56 Numerical tool for modeling rarefied non-equilibrium ionized flows on GPU-clusters <i>A. Kashkovsky, A. Shevyrin, Y. Bondar</i></p>	<p>14:50-16:30 Panel Discussion "Future perspective of the core-to-core project and multi-lateral jointing research - establishment of joint laboratory and GDRI -</p>
<p>BREAK</p>							

14:50

14:50

16:20

16:20

Thursday, October 29, 2015

MEETING ROOM 1	MEETING ROOM 2	TACHIBANA	HAGI	MEETING ROOM 4	MEETING ROOM 5	MEETING ROOM 6	MEETING ROOM 8
<p>16:30</p> <p>OS12: Advanced Control of Smart Fluids and Fluid Flows <i>Chair: M. Nakano</i></p>		<p>OS15: The 16th Japan-Korea Students' Symposium - New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials</p>			<p>OS6: Advanced Physical Stimuli and Biological Responses <i>Chair: M. Todoh</i></p>	<p>GS1: General Session Compressible Flows <i>Chair: J. Jenista</i></p>	<p>OS18: The Third International Symposium on Smart Layered Materials and Structures for Energy Saving</p>
<p>16:30-16:50 OS12-16 Development of a Novel Variable Stiffness and Damping Shock Absorber for Vehicle Suspension Application <i>S. Sun, J. Yang, H. Du, W. Li</i></p> <p>16:50-17:10 OS12-17 Hybrid Lattice Boltzmann Simulations of Magnetic Microswimmers <i>H. Tsutsumi, Y. Ido, H. Sumiyoshi, C.-Y. Chen</i></p> <p>17:10-17:30 OS12-18 Building Protection from Earthquakes using Stiffness Softening MRE Isolators <i>J. Yang, S. Sun, T. Tian, W. Li, M. Nakano</i></p>		<p>Session 8 <i>Chair: Y. Okamoto, I. Hwang</i></p> <p>16:20-16:40 OS15-43 Cross Effect of Scandium doped Calcium Titanate <i>D. Shin</i></p> <p>16:40-17:00 OS15-44 Evaluation of surface exchange coefficient of SOFC cathode materials by pulse isotope exchange <i>H. Chiba, R. A. Budiman, H. Satou, K. Yashiro, S. Hashimoto, T. Kawada</i></p> <p>17:00-17:20 OS15-45 Solid electrolyte <i>K. Oh</i></p> <p>17:20-17:40 OS15-46 Cathodic reaction of $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ on proton-conducting electrolyte $\text{SrZr}_{0.9}\text{Y}_{0.1}\text{O}_{3-\delta}$ under fuel cell condition <i>S. Noda, S. Hashimoto, K. Yashiro, T. Kawada</i></p> <p>17:40-18:00 Closing address</p>			<p>16:20-16:50 OS6-11 <i>Invited</i> Evaluation of Several Dependencies of Protein Diffusion Coefficients by Precise Visualization of Diffusion Field <i>A. Komiya</i></p> <p>16:50-17:05 OS6-12 Study of Permeability Changes of Endothelial Cell Monolayer Exposed to Hypoxia <i>K. Matsubara, K. Funamoto, I. K. Zervantonakis, K. Funamoto, T. Ito, J. Masamune, Y. Kimura, T. Hayase, R. D. Kamm</i></p> <p>Closing <i>T. Sato</i></p>	<p>16:30-16:50 GS1-57 Simulation of Liquid Jet into Supersonic Crossflows Using a Two-fluid Model Combined with Lagrangian Method <i>H. Liu, Y. Guo, W. Lin</i></p> <p>16:50-17:10 GS1-58 Computational Analysis of Flow containing Shock Waves and Multiple Particles by the Immersed Boundary Method <i>Y. Mizuno, S. Takahashi, T. Nonomura, T. Nagata, K. Fukuda</i></p> <p>17:10-17:30 GS1-59 Study on the Method for the Correction of Delay in AA-PSP Data Measured in High-frequency Oscillatory Flows <i>K. Yamabe, Y. Masuda, T. Oka, T. Handa, H. Sakaue</i></p>	<p>16:30-16:40 Closing <i>J. Y. Cavaille</i></p>
<p>18:00</p>							<p>18:00</p>

**SHORT ORAL & POSTER PRESENTATION
TABLE OF CONTENTS**

OS11: Flow Realization, Measurement and Visualization

- OS11-6: Evaluation of Velocity Field of an Abrasive Fan Jet by PIV
Y. Oguma, G. Peng, S. Shimizu
- OS11-7: Experimental and Numerical Studies of Aerodynamic Sound Radiated from a D-shaped Cylinder
N. Saito, T. Yamagata, N. Fujisawa
- OS11-8: Visualization of Vortex Structure Formed Behind a Square Plate Protuberance
H. Yamada, T. Haraoka, Y. Nishi
- OS11-9: Visualization of Secondary Flow Behind Circular Cylinders Forming Woven Screen
H. Yamada, Y. Takayama, Y. Koishi, T. Tsuchiya

OS14: International Workshop on Cavitation Peening and Related Phenomena

- OS14-4: Improvement of Fatigue Strength of Titanium Alloy Ti6Al4V Manufactured by EBM by Means of Cavitation Peening
H. Soyama, F. Takeo
- OS14-5: Introduction of Compressive Residual Stress by Means of Cavitation Peening into a Titanium Alloy Rod Used for Spinal Implants
O. Takakuwa, A. S. Gill, G. Ramakrishnan, S. R. Mannava, V. K. Vasudevan, H. Soyama
- OS14-6: Improvement of Fatigue Strength of Duralumin Plate with an Open Hole by Re-circulating Shot peening Method Using a Water Jet
Y. Ueno, H. Soyama
- OS14-7: Improvement of the Durability of Spinal Implant Made of Ti-6Al-4V ELI by Cavitation Peening
O. Takakuwa, M. Nakai, K. Narita, M. Niinomi, H. Soyama
- OS14-8: Improvement of Fatigue Strength of Elastic Ring for Planetary Traction Drive Unit by Cavitation Peening
H. Soyama

- OS14-9: Evaluation of Fatigue Crack Propagation in Surface Modification Layer by a Load-Controlled Plate Bending Fatigue Tester
O. Takakuwa, K. Sanada, H. Soyama
- OS14-14: Improvement of Fatigue Strength of Light Metallic Materials by Cavitation Peening
H. Soyama, N. Miyamoto
- OS14-15: Suppression of Hydrogen Invasion into Austenitic Stainless Steel by Means of Cavitation Peening
O. Takakuwa, Y. Mano, H. Soyama
- OS14-16: Suppression of Fatigue Crack Growth in Hydrogen-Charged SCM435 by Cavitation Peening
N. Kumagai, O. Takakuwa, H. Soyama
- OS14-21: Numerical Simulation of the Effects of Residual Stress on the Concentration of Hydrogen around a Crack Tip
O. Takakuwa, M. Nishikawa, H. Soyama
- OS14-22: Improvement of Fatigue Life of Bolt by Cavitation Peening
H. Soyama
- OS14-23: Interaction between Hydrogen and Residual Stress in Stainless Steel
T. Fujisawa, O. Takakuwa, H. Soyama
- OS14-27: Criterion between Cavitation Peening and Water Jet Peening on Mechanical Surface Treatment by Using a Submerged Water Jet
H. Soyama
- OS14-28: Introduction of Compressive Residual Stress into Spinal Implant Rod Made of Type 316L Stainless Steel by Cavitating Jet with Pressurized Chamber
M. Sato, O. Takakuwa, H. Soyama
- OS14-29: Effect of Nozzle Geometry on Aggressive Intensity of a Cavitating Jet in Air
H. Soyama
- OS14-30: Effect of Throat Length of Venturi on Fragmentation of Cells
J. Hoshino, H. Soyama
- OS14-31: Fluid/Material Coupled Numerical Analysis of Thermal Effect on Non-spherical Bubble Collapse
S. Endo, H. Sasaki, Y. Iga
- OS14-32: A Test Method of Material Characteristics by Using a Cavitating Jet
H. Soyama

- OS14-37: Effect of Impact Energy on Plastic Deformation Area Induced by Various Peening
S. Kanou, O. Takakuwa, S. R. Mannava, D. Qian, V. K. Vasudevan, H. Soyama
- OS14-38: Evaluation of Effect on Chrome Molybdenum Steel Treated by Cavitation Peening by Means of Eddy Current Method
H. Soyama, N. Kumagai
- OS14-39: Evaluation of Acoustic Pulses of Laser Abrasion and Laser Cavitation on Duralumin Plate in Water
Y. Ueno, T. Kokubun, H. Soyama

OS15: The 16th Japan-Korea Students' Symposium

New Energy Flow for Sustainable Society Properties and Applications of Next Generation Energy Materials

- OS15-18: Graphene Quantum Sheet Catalyzed Silicon Photocathode for selective conversion from CO₂ to CO
K. D. Yang, K. T. Nam
- OS15-19: Self-assembled Peptide Materials
J. Lee, K. T. Nam
- OS15-20: Relationship between impedance spectra, performance and microstructure of Ni-YSZ anode
M. Takeda, K. Yashiro, S. Hashimoto, T. Kawada
- OS15-21: Reversible energy storage in NaF-FeF₂ nanocomposite electrode
I. Hwang, S.-K. Jung, Y. Cho, H. Kim, K. Kang
- OS15-22: Theoretical evidence for low charging overpotentials of superoxide discharge products in metal-air batteries
B. Lee, G. Yoon, H.-D. Lim, K. Kang
- OS15-23: Li-excess cathode materials for high energy Li-ion battery
D.-H. Kim
- OS15-24: Snow melting system using SOFC
I. Susuta, K. Yashiro, T. Kawada, S. Hashimoto
- OS15-25: Controlling surface Sr segregation in model epitaxial thin film perovskite cathode for solid oxide fuel cells
B. Koo, H. G. Seo, W. C. Jung

- OS15-26: Influence of cation nonstoichiometry to oxygen nonstoichiometry in mixed ionic and electronic conducting perovskite oxides
Y. Okamoto, A. Kuwabara, T. Nakamura, T. Kawada, K. Amezawa
- OS15-27: Proton dissolution into $\text{BaZr}_{1-x}\text{Y}_x\text{O}_{3-\delta}$
G. Imai, T. Nakamura, K. Amezawa
- OS15-28: Electrical Characterizations of Perovskite Solar Cells by Impedance Spectroscopy
D.-T. Nguyen, D.-C. Cho, E.-C. Shin, Y.-H. Seo, S.-I. Na, S.-H. Kang, E.-M. Han, J.-S. Lee
- OS15-29: The chemical and electrochemical property of the $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ electrodes
X. Wang, K. Yashiro, S. Hashimoto, T. Kawada
- OS15-30: Oxygen Thermotransport of Mixed Conducting Oxide
I. Lee

OS16: The Eleventh International Students / Young Birds Seminar on Multi-scale Flow Dynamics

- OS16-1: Design space exploration on Combustion Chamber of Diesel Engine Based on Response Surface Method
M. Duan, Z. Yan, K. Wen, C. Lai, Y. Zhou
- OS16-2: Stability of Flame Propagation in Gas Mixture with Fuel Drops
N. Belyakov, S. Minaev
- OS16-3: The Difference of Combustion and Ignition Characteristics of Syngas and Methane in a Micro Flow Reactor with a Controlled Temperature Profile
T. Tanaka, T. Tezuka, H. Nakamura, K. Maruta
- OS16-4: The Simple Reaction Mechanisms Constructed Using Micro Flow Reactor with a Controlled Temperature Profile for $\text{C}_2\text{H}_5\text{OH}$
S. Onishi, Y. Sasaki, H. Nakamura, K. Maruta
- OS16-5: Flame Characteristics of Ammonia and Methane Flames in a Swirl Combustor
Y. Arakawa, A. Hayakawa, K. D. K. A. Somarathne, T. Kudo, H. Kobayashi
- OS16-6: Laser Induced Fluorescence Thermometry for High Pressure Combustion
T. Yano, K. Takeuchi, H. Kobayashi, S. Tomioka
- OS16-7: Combustion Performance of Hydrocarbon Fuel in a Dual-Mode Combustor
K. Nojima, S. Ishizaki, M. Soejima, S. Tomioka, N. Sakuranaka

- OS16-8: The Investigation of Flow Field and Heat Transfer in 90 deg Bend Microchannels Using Micro Particle Image Velocimetry and Temperature-Sensitive Paint
J.-R. Lin, Y.-X. Zheng, T.-M. Liou, C.-Y. Huang
- OS16-9: Flow Visualization of Oscillating Heat Pipe by X-ray Imaging Method
S. Yoshida, T. Daimaru, M. Kawaji, H. Nagai
- OS16-10: Application of Temperature-Sensitive Paint to High-Enthalpy Shock Tunnel for Visualization of Boundary Layer Transition
T. Nagayama, H. Nagai, H. Tanno, T. Komuro
- OS16-11: Effects of Check Valves on Thermal and Flow Characteristics of Oscillating Heat Pipes
T. Daimaru, S. Yoshida, H. Nagai
- OS16-12: Numerical Analysis of Combustion Enhancement by Ozone Addition and Shock Wave Interaction in Supersonic Flow
K. Murata, J. Kurasawa, T. Kudo, A. Hayakawa, H. Kobayashi
- OS16-13: A Parametric Study on the Wing Surface Heat Exhaust System for a High Altitude Long Endurance Unmanned Aerial Vehicle
K. Kamisori, K. Shimoyama, S. Obayashi
- OS16-14: Study on the Optimal Control of a Smart Home System in the Winter
T. Kato, K. Shimoyama
- OS16-15: Pressure Drop Reduction and Heat Transfer Deterioration of Slush Nitrogen Flow in a Horizontal Inverted-Triangular Pipe
M. Nakanishi, K. Kurose, K. Takahashi, K. Ohira
- OS16-16: Numerical Simulation of Coaxial MHD Power Generator using Lattice Boltzmann Method
K. Taki, Y. Iwamoto, H. Takana, H. Yamaguchi
- OS16-17: Solar-Thermophotovoltaic Power Generation with Spectrally Controlled Absorber/Emitter Systems
A. Kohiyama, M. Shimizu, H. Yugami
- OS16-18: Effective Thermal Dissipation through Semi-Transparent Materials with Thermal Radiation Control
S. Tsuda, M. Shimizu, F. Iguchi, H. Yugami
- OS16-19: Wavelength-Selective Absorber with Film-Coupled Grating Metamaterial for Solar-Thermophotovoltaic System
Y. Matsuno, A. Sakurai
- OS16-20: Numerical Modeling and Simulation of Plasma Chemical Reactions inside a Bubble for Water Treatment
Y. He, T. Hayashi, S. Uehara, H. Takana, H. Nishiyama

- OS16-21: DEM Simulation for the Evaluation of Fracture Toughness during Hydraulic Fracturing
H. Watanabe, H. Shimizu, T. Ito, K. Tezuka, T. Tamagawa
- OS16-22: Flow and Heat Transfer Characteristics of Boiling Liquid Nitrogen in a Horizontal Circular Pipe
H. Sugimoto, K. Ohira, K. Takahashi, H. Kobayashi, H. Taguchi, M. Hongo, T. Kojima
- OS16-23: Comparison between the Mixing Performance of Hypermixer and Aeroramp Fuel Injectors in the Scramjet Combustor
N. Kubo, S. Tomioka
- OS16-24: Discharge and Electrospray Phenomena Using Magnetic Fluid Surface
T. Itoga, S. Uehara, H. Takana, H. Nishiyama
- OS16-25: Electromagnetic Modeling of Cracks for Eddy Current Testing of Creep-Fatigue Damage in Cu-Alloy Combustion Chamber
K. Nakajima, T. Uchimoto, T. Takagi, M. Shiwa, S. Hori
- OS16-26: Intelligent Robot Based on Aspirator Fan Manipulator
Y. Takahashi, J. Mizuno
- OS16-27: Mechanical and Tribological Behavior of Cu/MoS₂ Composite Processed by Compression Shearing Method at Room Temperature
S. Takeda, H. Miki, T. Miyazaki, H. Takeishi, T. Takagi
- OS16-28: Measurement of Permeability Inside a Methane Hydrate Mimicking Porous Media
G. Lacaille, H. Yamada, H. Gonome, E. Shoji, J. Okajima, A. Komiya, S. Maruyama
- OS16-29: Reliability Assessment of Pipe Wall Thinning by Electromagnetic Acoustic Resonance (EMAR) and Pulse-EMAR using Superposition of nth Compression Method
S. Xie, R. Urayama, T. Uchimoto, T. Takagi
- OS16-30: Aeroelastic Simulation Using Absolute Nodel Coordinate Formulation
K. Otsuka, K. Makihara
- OS16-31: Evaluation of Orientation of Carbon Fibers in CFRP by Eddy Current Testing with Differential Type Probe
Y. Yoshikawa, H. Kosukegawa, R. Urayama, T. Uchimoto, T. Takagi
- OS16-32: An Advanced Control Strategy for Switching-Type Vibrational Energy Harvesting
K. Yoshimizu, Y. Yamamoto, K. Makihara
- OS16-33: Evaluation of Static Mechanical Properties of Dielectric-particulate-filled CFRP Composites Fabricated by Vacuum Assisted Resin Transfer Molding Method
A. Konno, H. Kosukegawa, H. Miki, T. Takagi
- OS16-34: Evaluation of Flight Characteristics of Flexible Multibody System with Mass Loss
T. Kikkawa, K. Makihara

- OS16-35: Amplification of Eddy Current Signals of CFRP by Adding Ferromagnetic Nanoparticles and its Numerical Simulation by Modified Vector Potential Method
R. Kato, H. Kosukegawa, R. Urayama, T. Uchimoto, T. Takagi
- OS16-36: Mixing Effects of Oxygen and Nitrogen Gases in T-type Micromixers
S.-A. Wan, Y.-C. Wang, C.-Y. Huang
- OS16-37: Modeling of Electromagnetic Acoustic Transducer Simulation for Thickness Evaluation of Non-magnetic Pipe Wall Thinning
S. Hara, R. Urayama, T. Uchimoto, T. Takagi
- OS16-38: Lattice Boltzmann Simulation of Bubble Breakup in a T-junction
X. Liu
- OS16-39: Electromagnetic Properties Measurement for Evaluation of Creep Damage in High Cr Ferritic Steels by Incremental Permeability Method
T. Matsumoto, T. Uchimoto, T. Takagi, G. Dobmann
- OS16-40: Evaluation on the Applicability of Nondestructive Testing Using Microwave to a Bent Pipe
K. Sasaki, N. Yusa, H. Hahizume
- OS16-41: Evaluation of the Influence of Fatigue Crack Closure on Eddy Current Testing Signals
Xi. Wu, T. Uchimoto, T. Takagi, R. Urayama, H. Feng
- OS16-42: Performance Evaluation of Vertical Axis Wind Turbine with Cylindrical Guide
Y. Arakawa, W. Yamazaki
- OS16-43: Planform Dependency on Airfoil Design Results for Supersonic Wing
Y. Kishi, M. Kanazaki, Y. Makino, K. Matsushima
- OS16-44: Far-Field Pressure Induced by the Atmospheric Entry of a Small Meteorite
R. Maruyama, M. Sun
- OS16-45: Robust Shape Optimization via Adjoint Derivative-enhanced Response Surface Model Approach
S. Tabata, W. Yamazaki
- OS16-46: Experimental Study of Separating Two Solid Materials by Underwater Electric Discharge
T. Gonai, T. Koita, M. Sun, S. Owada, T. Nakamura
- OS16-47: Ultrasonic Resonance Approach for Pipe Wall Thinning Using EMAT
D. Nakamura, A. Furusawa, F. Kojima
- OS16-48: Wing-in-wall Analysis on Air-train Vertical-wing
Z. Yan, M. Duan, C. Lai, Y. Zhou

- OS16-49: Stretching Process of Multi-scale Vortices in Turbulent Flows
M. Hirota, Y. Kobayashi, Y. Nishio, S. Izawa, Y. Fukunishi
- OS16-50: Liquid Sheet Wave Characteristics of Water Spray from a Fan Spray Nozzle under High Ambient Pressure
H. Ishii, N. Hiramoto, R. Watanabe, T. Kudo, H. Kobayashi
- OS16-51: Numerical Analyses on Particle Focusing in Microchannel Using Sheath Flow and Dean Flow Vortices
A. Ichikawa, H. Kumamaru
- OS16-52: Incompressible SPH Simulation on Droplet Deformation
M. Ito, Y. Nishio, S. Izawa, Y. Fukunishi
- OS16-53: A Fundamental Study of Microchannels for Microfluidics Devices Based on 3D-Printer Technology
T. Kakizaki, J. Mizuno, S. Takahashi, S. Kudo
- OS16-54: Vortical Structures Contributing to the Onset of Turbulence
J. Yoshikawa, Y. Nishio, S. Izawa, Y. Fukunishi
- OS16-55: Aerodynamic Optimization Research on Active Underbody Diffuser of Saloon Cars with Two Vehicle Attitude Angles
J. Cao, X. Hu, B. Yang, J. Wang, T. Yu, Y. Liu, C. Xue
- OS16-56: Two Phase Bubbly Flow Simulations in Rectangular Tanks
Y. Takakuwa, W. Yamazaki, T. Sumida
- OS16-57: The Study of 90 Degree Elbow Microchannel Gas Flow Using Pressure-Sensitive Paint
K. Chiang, Y. Sun, C. Huang, H. Wang
- OS16-58: Development of the Makita-type Active Turbulence Grid for 0.3-m Wind Tunnel
S. Hattori, H. Nagai, D. Numata, K. Asai
- OS16-59: A New Scheme for Outflow Boundary Conditions in the Two-phase Lattice Boltzmann Method
L. Li, Y. Liu, M. Su
- OS16-60: Numerical Simulation of Compressible Cavitation Flow by Using Two-fluid Model
S. Oda, M. Sun
- OS16-61: Numerical Investigation of Interaction between Bubble and Underwater Spherical Shock Wave
A. Sotoguchi, M. Sun
- OS16-62: Uncertainty Analysis of Supersonic Biplane Airfoil Using Polynomial Chaos Method
K. Hanazaki, W. Yamazaki

- OS16-63: Experimental Analysis on Dynamics of Ionic Liquid Electrospray
K. Saegusa, H. Takana
- OS16-64: Aerodynamic Drag Reduction Research of Pit Type Non-smooth Auto-body Surface
G. Li, X. Hu, Y. Zhu
- OS16-65: Numerical Modeling of Fault Shear Slip Induced by Fluid Injection
S. Inoue, T. Ito, H. Shimizu
- OS16-66: Position Sensing System for the IFS 1-m MSBS
K. Sato, T. Senzaki, K. Asai, S. Obayashi, H. Sawada
- OS16-67: Evaluation of Aerodynamic Characteristics of an Optimized Airfoil for Mars Airplane
K. Yamahara, D. Oshiyama, H. Nagai, M. Kanazaki, D. Numata, K. Asai
- OS16-68: Modeling of Pressure-driven Gas Flow in Nanoscale Porous Media
Y. Kawagoe, S. Yonemura, T. Tokumasu
- OS16-69: Development of a Hexagonal Force Balance and Its Application to Supersonic Wind Tunnel Testing
S. Imagawa, K. Ohtani, S. Obayashi

OS17: AFI-2015
IFS Collaborative Research Forum

- CRF-1: Aerodynamic Characteristics of a Silent Supersonic Biplane Model using a New Force Balance
S. Miki, H. Kawazoe, S. Obayashi
- CRF-2: Study of the Unsteady Flow at Near Mach Number 1.0
T. Kikuchi, S. Baba, H. Nishihara, K. Ohtani
- CRF-3: Numerical Analysis of Sonic Boom Propagation Through Atmospheric Turbulence
R. O. Bura, K. Shimoyama, S. Obayashi
- CRF-4: Cartesian-based CFD Approach Toward Investigation of Aerodynamic Characteristics of Low-Reynolds Number Airfoils
D. Sasaki, D. Iioka, Y. Kojima, T. Akasaka, M. Okamoto, T. Misaka, S. Obayashi, K. Shimoyama

- CRF-5: Flow Analysis around Moving Objects by Cartesian Mesh Method
R. Serizawa, K. Nozawa, S. Takahashi, D. Sasaki, M. Okamoto, S. Obayashi
- CRF-6: Numerical Analysis on High Speed Flow Control using Repetitive Laser Energy Deposition
A. Iwakawa, T. Sakai, A. Sasoh, S. Obayashi
- CRF-7: Application of Data Assimilation to Aviation Safety
J. Cho, T. Misaka, S. Obayashi, Y. Kwanjung, S. Jeong
- CRF-8: Numerical Study of Non-equilibrium Flow with Dissociation and Vibrational Relaxation over a Wedge
G. Shoey, P. Vashchenkov, S. Yonemura, Y. Bondar
- CRF-9: Study on Improvement of Aerodynamic Performance for an Airborne Projectile — The Results of Wind Tunnel Test on Air Permeability of Ski Jumpsuit Fabric —
S. Tekuramori, H. Hasegawa, S. Obayashi
- CRF-10: Position Indication of Air-Leakage caused by Space-Debris Impact using Photoluminescent Substance
Y. Oki, S. Kondo, S. Hasegawa, M. Hasegawa, K. Makihara
- CRF-11: Optimization of Influential Factors for Practical Application of an Ornithopter
T. Ishide, K. Naganuma, R. Fujii, K. Maeno, S. Obayashi, K. Shimoyama
- CRF-12: Liquid Film Breakup and Atomization of Water Spray Jet under High Ambient Pressure
R. Watanabe, H. Ishii, T. Tanaka, H. Kobayashi
- CRF-13: Thermodynamic Effect on Tip Leakage Vortex Cavitation
D. Kang, D. Nakai, T. Furusawa, Y. Iga
- CRF-14: PSP Development for Ballistic Range Experiments
D. Numata, K. Asai, K. Ohtani
- CRF-15: Feasibility Studies on a High-Altitude Captive Platform System
R. Nishikawa, K. Chiba, S. Obayashi, M. Onda, S. Satori, R. Akiba
- CRF-16: Topology-Based Multisensory Realization of Wake Turbulence
Y. Takeshima, T. Misaka, S. Obayashi
- CRF-17: Aerodynamic Optimization of Vehicle Shape Based on Genetic Algorithm
C. Lai, X. Chen, K. Wen, Y. Zhou

- CRF-18: Study on Optimization of Tailing Edge for Low Noise Airfoil
T. Yamagata, R. Saito, N. Fujisawa, K. Inoue, T. Hayase
- CRF-19: Intrinsic Instabilities of Premixed Flames with High Lewis-Number Reactants and Intermediate Products
S. Kadowaki, K. Ando, T. T. Aung, W. Yamazaki, H. Kobayashi
- CRF-20: Numerical Studies of Ignition in ABC-Flow in Confined Domain with Nonadiabatic Boundary Conditions
E. Sereshchenko, R. Fursenko, S. Minaev, S. Shy, K. Maruta, H. Nakamura
- CRF-21: On Numerical Modeling of Time-dependent 2D Processes in Porous Media with Zones of Heterogeneous Combustion
N. A. Lutsenko, K. Maruta
- CRF-22: Flammability Limits of Low-Lewis-number Premixed Flames
S. Minaev, R. Fursenko, K. Maruta
- CRF-23: Investigation of Combustion Waves in the Model with Chain-branching and Radical Scavenging
V. Gubernov, S. Minaev, V. Babushok, A. Kolobov
- CRF-24: Magnetohydrodynamics Simulation on MHD Power Generator for Wind Energy
Y. Iwamoto, H. Takana, K. Taki, H. Yamaguchi
- CRF-25: Numerical Analysis of In-flight Sprayed Particles in Plasma Jet for a Thermal Plasma Spray with an Externally Applied Magnetic Field
H. Saito, Y. Nakane, T. Fujino, H. Takana
- CRF-26: Rapid Deposition of Photo-catalytic Titanium Oxide Film by Atmospheric SPPS using Ar Vortex Plasma Jet
K. D. Zakaria, Y. Noda, Y. Ando, S. Uehara, T. Nakajima, H. Nishiyama, O. P. Solonenko
- CRF-27: Characterization of Plastic Deformation using EMAT
C. Pei, S. Zhao, S. Xie, Z. Chen
- CRF-28: Investigation of Inhomogeneous Mixing of Plasma Species in a Hybrid-stabilized Argon-water Arc Discharge: The Very First Simulations
J. Jeništa, H. Takana, S. Uehara, H. Nishiyama, M. Hrabovský, A. B. Murphy, M. Bartlová, V. Aubrecht
- CRF-29: Application of Magneto-Rheological Elastomers to Energy Harvesting
G. Sebald, M. Nakano
- CRF-30: Kinetic Modeling of Energy Thermalization, Chemical Reactions, and Compression Wave Formation in Non-equilibrium Nanosecond Pulse Discharges in Nitrogen and Air
I. Shkurenkov, I. V. Adamovich, H. Takana, H. Nishiyama

- CRF-31: Study on Energy Transport by Radiation and Convection in Large Scale Environment
N. Yamada, J. Okajima, A. Komiya, S. Maruyama
- CRF-32: Experimental and Numerical Investigations of Local Heating of Biological Tissue for Laser Therapy
T. Sugiura, T. Okabe, J. Okajima, A. Komiya, Y. Nakamura, A. Sakurai, V. Timchenko, T. Kodama, S. Maruyama
- CRF-33: Non-invasive Detection of a Tumor in a Human Breast
K. Das, S. C. Mishra, J. Okajima, S. Maruyama
- CRF-34: Development of Magnetic Coil to Stimulate a Peripheral Nerve
S. Kamo, H. Mori, K. Yashima, T. Takagi, S. Izumi, R. Nagatomi, H. Kosukegawa, T. Abe
- CRF-35: Attenuation and Reduction Effect of Underwater Explosion by Porous Materials
K. Kitagawa, D. Nagahiro, K. Ohtani, Y. Konishi, A. Abe
- CRF-36: Bubble Motion and Effect of Biological Tissue by Underwater Expansion Wave Irradiation
Y. Ogawa, T. Hashimoto, K. Ohtani
- CRF-37: Relationship between Cell Orientation and Strain Distribution in Endothelial Cells under Fluid Shear Stress with Its Spatial Gradient
D. Yoshino, N. Sakamoto, M. Sato
- CRF-38: Rolling Characteristics of Neutrophils on PDMS Surface Mimicking the Endothelial Topography
A. Shirai, J. P. Rieu
- CRF-39: Generation and Transport of Chemical Species in Low-temperature Atmospheric Plasma for Sanitization Device
T. Shimizu, G. E. Morfill, N. Kishimoto, H. Kamiyama, T. Sato
- CRF-40: Development of Small Sterilization Device using Low Temperature Plasma Flow for Inactivation of Pathogens
K. Okazaki, T. Sato, H. Oshitani, M. Okamoto, T. Nakajima, S. Fujimura
- CRF-41: Development of a Program for Blood Flow and Cell Behaviors based on LBM Method (Third Report)
M. Ohta, M. Zhang, B. Chopard, X. Han, Y. Li, H. Anzai
- CRF-42: Research of Friction and Drilling on Bio-composite Model (Third Report)
M. Ohta, Y. Muramoto, V. Fridrici, K. Yu, P. Kapsa
- CRF-43: Correlation between Physicochemical Properties of Protein Signal Sequence Variation and Subcellular Transportation
K. Etchuya, H. Sugita, T. Kikegawa, K. Hamada, N. Takachio, N. Kato, M. Ohta, Y. Mukai

- CRF-44: Molecular Dynamics Study on Thermal Resistance of Solid-Liquid Interfaces
M. Shibahara, T. Ohara, G. Kikugawa
- CRF-45: Molecular Dynamics Study on Thermal Transpiration Flow
H. Yamaguchi, G. Kikugawa
- CRF-46: Control of Thermal Transport across a Solid-liquid Interface by using Self-assembled Monolayer
S. Hung, J. Shiomi, G. Kikugawa
- CRF-47: Study on Gas Lubrication of a Textured Surface in Micro/nanoscale
S. Yonemura, Y. Kawagoe, A. Shevyrin, P. Vashchenkov, Y. Bondar
- CRF-48: Investigation of Nozzle Flows at Low Reynolds Numbers
K. Maruta, Y. Bondar, G. Shoen, A. Shershnev
- CRF-49: Photoluminescence Study on GaAs Quantum Nanodisk Array Fabricated by Bio-nano-template and Neutral Beam Etching
D. Ohori, K. Kondo, C. Thomas, A. Higo, S. Samukawa, T. Ikari, A. Fukuyama
- CRF-50: Growth of Multigraphene on Pencil Drawing Paper Irradiated by Femtosecond Laser
R. Sudo, T. Tokumasu, S. Yasuhara, K. Satoh, Y. Shimizu, T. Rachi, S. Tanaka, C. Kato, M. Yasui, S. Kaneko
- CRF-51: Effect of Electric Fields on the Inception of Primary and Secondary Streamers in Water
H. Fujita, S. Kanazawa, K. Ohtani, A. Komiya, T. Kaneko, T. Sato
- CRF-52: Development of Bubble Measurement Method by Plasma
T. Sato, Y. Nagasawa, K. Ohtani, T. Miyahara, T. Nakatani
- CRF-53: Stability Analysis of Vortices with Axial Flow based on Energetics and Its Application
Y. Hattori, M. Hirota, Y. Fukumoto
- CRF-54: The continuous spectrum in the Moore-Saffman-Tsai-Widnall Instability
Y. Hattori, M. Hirota, S. G. Llewellyn Smith
- CRF-55: Measurement-Integrated Analysis Methodology for Complex Flow Systems: Collaborative Research Overview
T. Hayase, S. Miyauchi, K. Inoue, L. Brandt, S. Bagheri, F. Lundell
- CRF-56: Coupled Analysis of High-Density Hydrogen Safety Management
J. Ishimoto, A. Combescure

- CRF-R1: Supercomputing and Scale Modeling of Flotsam Mixed Tsunami
J. Ishimoto, K. Saito
- CRF-57: Energy Spectra Simulation of Neutral-Beam-Etching Fabricated Semiconductor Nanodisk
M. Lee, Y. Tsai, , Y. Li, S. Samukawa
- CRF-58: Development of Bio-template for Etching Mask of 2D Ordered/dispersed Array of Nanoparticle
I. Yamashita, N. Okamoto, R. Tsukamoto, S. Samukawa
- CRF-59: Formation of Damage-Free Fin Channel by Neutral Beam Etching for Ge FinFETs
W. Mizubayashi, K. Endo, H. Ota, T. Kubota, S. Noda, S. Samukawa
- CRF-60: Analysis of Transport Phenomena of Oxygen Ion in an Electrolyte of Solid Oxide Fuel Cell
H. Nagashima, T. Tokumasu, J. Ahn
- CRF-61: A Discussion on the Effect of Quantum Nature on Density Structure of Liquid Hydrogen using Molecular Simulation
C. Katayama, H. Nagashima, T. Tokumasu, N. Tsuboi, S. Watanabe, S. Tsuda
- CRF-62: Molecular Simulation of Oxygen Scattering on Ionomer Surface in Catalyst Layer of PEFC
M. Nakauchi, I. Kinefuchi, H. Takeuchi, T. Tokumasu
- CRF-63: Molecular Dynamics Study of the Momentum Transport by the Droplet Shearing
A. Fukushima, N. Fillot, T. Tokumasu, P. Vergne
- CRF-64: Investigation of the Fatigue Damage in Cast Aluminum Alloy using Synchrotron Microtomography Image Processing and Image-based Finite Element Analysis
V.A. de Souza, O. Kuwazuru, K. Suzuki, M. Kobayashi, H. Toda, S. Obayashi
- CRF-65: Technical Development for the Micro Shape Forming used by Compression Shearing Method at Room Temperature
S. Sakagami, N. Nakayama, T. Takagi, H. Miki, H. Kosukegawa
- CRF-66: Research on the Physical and the Tribological Properties of a Soft Metal Layer Originating in Me-DLC on Sliding Surface
M. Goto, T. Takagi, K. Ito, T. Takeno, H. Miki, H. Kosukegawa
- CRF-67: Improvement and Micro-Channel Flow Evaluation of Electro-Rheological Nano-Suspensions
K. Tanaka, S. Robson, H. Kobayashi, M. Takasaki, M. Nakano, A. Totsuka
- CRF-68: Polymer Rotor for Micro-Electromotor
M. Zrinyi, M. Nakano

- CRF-69: Microjet Formation Mechanism in a Cavitation Process
T. Minami, T. Sato, K. Ohtani, T. Nakajima, T. Kaneko, M. Farhat
- CRF-70: Heat and Fluid Flow Characteristics of Liquid Film Flow along Heat Transfer Surface with Microscopic Grooves
T. Hirasawa, T. Adachi, K. Higashiono, J. Okajima, T. Akinaga
- CRF-71: Transport Properties and Hall Effect of Ni(Co)-Mn-Al Melt Spun Ribbons
V. Khovaylo, M. Lyange, A. Konovalov, M. Seredina, H. Miki, T. Takagi, R. Chatterjee, L. K. Varga
- CRF-72: Development of a Compact Variable Stiffness and Damping Isolator
S. Sun, J. Yang, W. Li, M. Nakano
- CRF-73: Capillary Phenomena of Magnetic Fluid Bridge between Two Permanent Magnets in Alternating Magnetic Field
S. Sudo, K. Takahashi, S. Uehara, H. Nishiyama
- CRF-74: Investigation on Behavior of Particles in MR Fluid Flows
H. Tsutsumi, Y. Ido, M. Nakano
- CRF-75: Numerical Simulation of an Object Washout by Tsunami
F. Togashi, R. Lohner, O. A. Soto, M. Beppu, S. Obayashi
- CRF-76: Eliminating Major Tornadoes in US Tornado Alley
R. Tao, M. Nakano
- CRF-77: Quantitative Visualization of Unsteady High-speed Fluid Phenomena in Nature Environment
T. Mizukaki, K. Otani, S. Obayashi
- CRF-78: Unsteady Solutions of the Driven Cavity Flow Problem – The Effect of Discretization on the Critical Reynolds Number –
R. Iwatsu
- CRF-79: Study on Flow-induced Vibration of Soft Fins
A. Rinoshika, S. Suzuki, M. Nakano
- CRF-80: Rheological Properties of Snail's Mucus Enabling Adhesive Crawling Locomotion
M. Watanabe, H. Tsukagoshi, M. Nakano
- CRF-81: Measurements of Aerodynamic Characteristics of the Turbo-jaw
S. Nakagawa, Y. Konishi, T. Nakajima, T. Itano, M. Sugihara-Seki, S. Obayashi

- CRF-82: Vortex Dynamics of the High Energy (Negative Temperature) State in Quasi-geostrophic Turbulence
M. Ishihara, N. Takahashi, T. Miyazaki, N. Hatakeyama, Y. Hattori
- CRF-83: Study on Improvement in Sterilization Effect of Shock Wave for Marine Bacteria
J. Wang, T. Gonai, A. Abe, M. Sun, T. Koita
- CRF-84: Control of Karman Vortex Street behind a Thin Airfoil at Low Reynolds Number
S. Takagi, Y. Konishi, S. Obayashi
- CRF-85: Analysis of Complex Spatiotemporal Structures of Vortices in High Reynolds Number Turbulence
T. Ishihara, Y. Hattori
- CRF-86: Researches on the Active Control of Hole Tone Phenomena
K. Matsuura, M. Nakano
- CRF-87: Numerical and Experimental Research on Active Control of Self-Sustained Flow Oscillations with Sound Interaction
M. A. Langthjem, M. Nakano
- CRF-88: Development of Conservative Kinetic Force Method
V. Saveliev, S. Filko, S. Yonemura
- CRF-89: Investigation of Non-equilibrium Turbulence and Its Application to Flow Control
Y. Sakai, K. Nagata, Y. Ito, K. Iwano, T. Hayase, T. Watanabe, Y. Zhou
- CRF-R2: Analog Memory Operation of Resistance Change Memory with MOSFET for Brain-like LSIs
H. Ando, K. Tomizaki, T. Tohara, T. Morie, T. Hiroi, A. Nakane, R. Katsumura, A. Fukuchi, M. Arita, Y. Takahashi, S. Samukawa
- CRF-R3: Cardiac Evaluation of Fetal Mice by ECG and Ultrasound
R. Sugibayashi, T. Ito, T. Hayase
- CRF-R4: Investigation on Advanced Medical Ultrasound Imaging Technology
M. Tanabe, Y. Naito, M. Nishimoto, H. Hashimoto, T. Jibiki, T. Shimazaki, S. Miyauchi, K. Inoue, T. Hayase
- CRF-R5: Flow Physics of Stunted Busemann Intakes in Viscous and Rarefied Flow
H. Ogawa, B. Shoesmith, S. Mölder, G. Shoen, Y. Bondar, E. V. Timofeev, K. Ohtani, S. Obayashi