

9:00	EX-1 (Satellite room) & EX-2						9:00
2:10	9:00-9:20 Opening Address						
	9:20-12:00 Plenary Lectures						
	9:20-10:10 "Some Multi-Disciplinary Advancements in Fluid Dynamics" <i>Konstantinos Kontis</i> Chair: Chih-Yung Huang						
	10:15-11:05 "Physiologic Blood Turbulence: Shifting the Mechanistic Paradigm of Vascular Disease" <i>Khalid M. Saqr</i> Chair: Makoto Ohta						
4:10	11:10-12:00 "Ammonia Combustion for Gas Turbine Power Generation" <i>Hideaki Kobayashi</i> Chair: Kaoru Maruta						
	BREAK						
	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-SAKURA	Remo
	OS20:Liaison + OS2:Combustion, OS23:Lyon, OS24:C2C	OS8: Advanced Physical Stimuli and Biological Responses <i>Chair: Y.-C. Cheng</i>	ISC Meeting <closed session>	OS12: Complex Thermofluid System Viscous Fingering <i>Chair: C.-Y. Chen</i>		OS21: The 18th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	
5:40	14:40- Introduction	14:05-14:10 Opening <i>T. Sato, T. Ohashi, Y.-C. Cheng</i>	14:10-14:30 ISC Meeting	14:10-14:30 OS12-1 <i>Invited</i> Arresting Effect on Interfacial Phase Separation by an Imposed Flow <i>R. X. Suzuki , T. Ban, S. Seya, M. Mishra, Y. Nagatsu</i>		Poster Presentation 14:10-15:40 OS21-1 - OS21-22	
	14:45-14:55 Tohoku University <i>Prof. Toshiya Ueki</i>	14:10-14:50 OS8-1 <i>Invited</i> Preparation of Sub-100-Micron Calcium-Alginate Microspheres Using Nitrogen Flow Focusing: Dependence of Spherical Shape on Gas Streams <i>Y.-L. Wang, J.-J. Hu</i>		14:30-14:45 OS12-2 Effect of Pe on Miscible Viscous Fingering with Effective Interfacial Tension <i>Y. Deki , Y. Nagatsu, M. Mishra, R. X. Suzuki</i>			
	14:55-15:05 INSA-Lyon <i>Prof. Nicolas Mary</i>	14:50-15:05 OS8-2 Morphologic Characteristics and Mechanical Properties of Cancellous Bones <i>C.-G. Xu, W.-Y. Jang</i>		14:45-15:00 OS12-3 <i>Invited</i> Stabilization of Viscous Fingering in a Partially Miscible System <i>K. Iwasaki , R. X. Suzuki, T. Ban, M. Mishra, Y. Nagatsu</i>			
	15:05-15:15 IFS (core to core) <i>Prof. Takashi Tokumasu</i>	15:05-15:20 OS8-3 Classification of Ion Current Pulses by Machine Learning Methods Integrating Large Deviation Principles <i>N. Maegawa , H. Yamazaki, K. Doi, S. Kawano</i>		15:00-15:15 OS12-4 Experimental Study of Immiscible Viscous Fingering via Alternating Injection <i>A. Kumar , C.-C. Chou, W.-C. Huang, C.-Y. Chen</i>			
5:50	15:15-15:25 KAIST <i>Prof. Kenichi Funamoto</i>	15:20-15:35 OS8-4 Coupling Between the Rotational and Translational Dynamics of Water in Lysozyme Solutions <i>K. Hu , R. Shirakashi</i>		15:15-15:30 OS12-5 Numerical Simulation of Density Driven Flow Field: Reactive and Non-Newtonian Effects <i>Y.-S. Li , T.-H. Kuo, C.-Y. Chen</i>			
	15:25-15:35 ECL <i>Prof. Vincent Fridrici</i>						
	15:35-15:45 Question time						
5:50	BREAK						
	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-SAKURA	Remo
	OS20:Liaison + OS2:Combustion, OS23:Lyon, OS24:C2C	OS8: Advanced Physical Stimuli and Biological Responses <i>Chair: T. Ohashi</i>	OS11: Microfluidics and Microphysiological Modeling <i>Chair: K. Funamoto</i>	OS12: Complex Thermofluid System Miscible Flow and Interface Phenomena <i>Chair: Y. Nagatsu</i>	OS14: Porous Media <i>Chair: A. Suzuki</i>		OS22: IFS Collaborative Research Forum (AFI-2022)
	15:45-15:55 University of Washington <i>Prof. Fumio Ouchi</i>	15:50-16:30 OS8-5 <i>Invited</i> Application of Electrohydrodynamics on Single Cell Property Interrogation <i>Y.-S. Lin, G.-Y. Chen, C.-J. Li, B. L. Pioufle, H.-Y. Wang</i>	15:50-16:10 OS11-1 Numerical Simulation on the Effects of Internal and External Viscosity Contrast of a Soft Particle on its Motion and Suspension Viscosity <i>D. Nakasue , T. Fukui</i>	15:50-16:05 OS12-6 Understanding of Viscous Fingering with Gel Production Reaction via Interfacial Rheology Under Large Deformation <i>H. Yagi , R. X. Suzuki, Y. Nagatsu</i>	15:50-16:20 OS14-1 <i>Invited</i> Digital Rock Physics for Geothermal Systems <i>J. Maes , H. P. Menke, A. Patsoukis-Dimou, A. Suzuki</i>		Free Discussion CRF-1 to 24
	15:55-16:05 Syracuse University <i>Prof. Riyad S. Aboutaha</i>						

17:20	16:05-16:15 NYCU <u>Prof. Yiming Li</u>	16:30-16:45 OS8-6 Activation of Neutrophils by Nanosecond Pulsed Electric Fields <u>K. Mochizuki</u> , <u>T. Koga</u> , <u>K. Morotomi-Yano</u> , <u>K. Yano</u>	16:10-16:30 OS11-2 Hydrodynamics of Droplet Generation Through Non-Uniform T-Junction Microfluidic System <u>A. Venkateshwarlu</u> , <u>R. P. Bharti</u>	16:05-16:20 OS12-7 Dual Displacement Fronts of Fluid Displacement in Porous Media: Numerical Simulations on Double Viscous Fingerings <u>A. Patmonoaji</u> , <u>Y. Nagatsu</u>	16:20-16:40 OS14-2 Transport in 3D Printing-based Microfluidics <u>A. Patsoukis Dimou</u> , <u>A. Suzuki</u> , <u>S. Geiger</u> , <u>H. Menke</u> , <u>J. Maes</u>		
	16:15-16:25 KAUST <u>Prof. Mani Sarathy</u>						
	16:25-16:30 Question time	16:45-17:00 OS8-7 Effects of Short-lived and Long-lived Reactive Oxygen and Nitrogen Species Produced by Non-thermal Atmospheric Pressure Plasma on PCNA Structure <u>R.-Z. Zhang</u> , <u>S. Ann</u> , <u>Y.-C. Cheng</u>	16:30-16:50 OS11-3 Competition of Pulsatile Pressure Gradients and AC Electroosmotic Flow in a Microchannel and Resonance Formation <u>L. Kaykanat</u> , <u>E. Corvera Poiré</u> , <u>K. Uguz</u>	16:20-16:35 OS12-8 A Numerical Study of Linear Adsorption in Radial Miscible Flow in a Porous Matrix <u>A. Jangid</u> , <u>P. Verma</u> , <u>C.-Y. Chen</u> , <u>M. Mishra</u>	16:40-17:00 OS14-3 Comparison of MEA, DEA, TEA, and AMP in Multicycle Carbon Mineralization <u>C. Thamsiriprideeporn</u> , <u>T. Suekane</u>		
	16:30-16:40 Thailand Office <u>Dr. Parichat Wetchayont</u>		16:50-17:10 OS11-4 Flow Promoted by Locomotions in <i>C. elegans</i> <u>Y. Asoshina</u> , <u>K. Kikuchi</u> , <u>T. Ishikawa</u>	16:35-16:50 OS12-9 Non-linear Insights to Shear Instability in Two-Layer Flow <u>Priyanka</u> , <u>S. N. Maharana</u> , <u>M. Mishra</u>			
	16:40-16:50 Foreign Trade University <u>Ms. Had Dao</u>	17:00-17:15 OS8-8 Effect of Plasma-generated Electrical and Chemical Stimulation on HT-1080 Cells <u>A. Nakayama</u> , <u>T. Nakajima</u> , <u>S. Liu</u> , <u>T. Sato</u>		16:50-17:05 OS12-10 Microparticle Sorting in High Viscosity Flow <u>C.-P. Teng</u> , <u>H.-Y. Yang</u> , <u>C.-Y. Wang</u> , <u>Y.-Y. Chiang</u>			
	16:50-17:00 KTH <u>Prof. Lundell Fredrik</u>			17:05-17:20 OS12-11 Predict Biphasic Separation Using Machine Learning Based Classifiers and Deep Neural Network <u>Y.-C. Chang</u> , <u>Y.-J. Chen</u> , <u>T.-Y. Ho</u> , <u>Y.-Y. Chiang</u>			
	17:00-17:10 UNSW <u>Prof. Atsuki Komiya</u>						
	17:10-17:15 Question time						
	17:20 Closing remarks						
	BREAK						
17:30	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-SAKURA	Remo
	OS2:Combustion + OS20:Liaison, OS23:Lyon, OS24:C2C Transition in reactive systems <i>Chair: Ö. L. Gülder</i>	OS8: Advanced Physical Stimuli and Biological Responses <i>Chair: R. Shirakashi</i>	OS11: Microfluidics and Microphysiological Modeling <i>Chair: E. Corvera Poiré</i>	OS16: Vortex Motion Vortex Dynamics <i>Chair: Y. Hattori</i>	OS14: Porous Media <i>Chair: M. Ohta</i>		
17:30-17:50 OS2-1 Plasma-assisted Deflagration to Detonation Transition of Dimethyl Ether in a Microchannel <u>M. Vorenkamp</u> , <u>S. Steinmetz</u> , <u>A. Starikovskiy</u> , <u>C. Kliewer</u> , <u>Y. Ju</u>	17:30-18:10 OS8-9 <i>Invited</i> Corona Discharge-induced Air Flow Control for Environmental and Biological Applications <u>S. Kanazawa</u> , <u>T. Mitsui</u> , <u>T. Furuki</u> , <u>K. Tachibana</u> , <u>R. Ichiki</u> , <u>T. Sato</u> , <u>M. Kocik</u> , <u>J. Mizeraczyk</u>	17:30-17:50 OS11-5 Modeling of Internal Driving Force During Sperm Hyperactivation <u>S. Kamijo</u> , <u>T. Omori</u> , <u>T. Ishikawa</u>	17:30-17:50 OS16-1 Laminarization of Three-Dimensional Boundary Layer by Artificially-Sustained Crossflow Vortices <u>M. Hirota</u> , <u>Y. Ide</u> , <u>Y. Hattori</u>	17:30-17:50 OS14-4 Experimental Study with Interaction of Gravity and Viscous Forces in a Three-Dimensional Porous Medium <u>M. A. Mahardika</u> , <u>S. Yun</u> , <u>T. Koue</u> , <u>M. Nasir</u> , <u>A. Patmonoaji</u> , <u>S. Matsushita</u> , <u>T. Suekane</u>			
17:50-18:10 OS2-2 Numerical Study for Reproducing Knocking Experiment in a Constant Vessel with a Single Spark Igniter <u>Y. Morii</u> , <u>A. K. Dubey</u> , <u>H. Nakamura</u> , <u>K. Maruta</u>	18:10-18:50 OS8-10 <i>Invited</i> Mechanical Characterization of Cellular Primary Cilia by Using Micro-tensile Testing <u>T. D. Do</u> , <u>T. Ohashi</u>	17:50-18:10 OS11-6 Hydrodynamics of Droplet Generation in a T-Junction Microfluidic System <u>P. Dogra</u> , <u>A. Venkateshwarlu</u> , <u>R. Prakash Bharti</u>	17:50-18:10 OS16-2 Velocity Structure of a Vortex and Derived Vortex Stretching in a Homogeneous Isotropic Turbulence <u>K. Nakayama</u>	17:50-18:10 OS14-5 Computation of Transport Properties within Nanoporous Molecular Sieves via Dynamic Adsorption/Desorption Measurements <u>U. Torres-Herrera</u> , <u>M. F. Ballesteros-R ívas</u> , <u>V. Varela-Guerrero</u> , <u>J. Balmaseda</u>			
18:10-18:30 OS2-3 Numerical Integration Approach with Carleman Linearization for Chemical Reactions and Combustion toward Quantum Computation <u>T. Akiba</u> , <u>Y. Morii</u> , <u>K. Maruta</u>	18:50-18:55 Closing <u>S. Kawano</u> , <u>R. Shirakashi</u>	18:10-18:30 OS11-7 Interfacial Instability of Immiscible Fluids Flowing in a Microchannel under an Electric Field <u>S. Altundemir</u> , <u>Y. Ağanoğlu</u> , <u>S. İ. Kaykanat</u> , <u>K. Uğuz</u>	18:10-18:30 OS16-3 Compact Nambu Brackets for Fluid and MHD Equations <u>Y. Fukumoto</u> , <u>R. Zou</u>	18:10-18:30 OS14-6 Reaction Induced Fingering Instability Under Asymmetrical Conditions <u>P. Verma</u> , <u>V. Sharma</u> , <u>M. Mishra</u>			
		18:30-18:50 OS11-8 Three-Dimensional Culture of Chick Limb Mesenchymal Cells Using Microfluidic Devices <u>S. Yanagita</u> , <u>K. Tamura</u> , <u>K. Funamoto</u>	18:30-18:50 OS16-4 Nonlinear Dynamics of Two Interlaced Helical Vortices: Theory and DNS <u>I. Delbende</u> , <u>M. Rossi</u> , <u>C. Selçuk</u>				
19:00							

9:00	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	CON-SAKURA2	Remo	9:00
	OS1&OS3:The Tenth International Symposium on Innovative Energy Research I & III <i>Chair: J. Ishimoto</i>	OS2:Combustion + OS20:Liaison, OS23:Lyon, OS24:C2C Reactor channel systems <i>Chair: O. Mathieu</i>		OS11: Microfluidics and Microphysiological Modeling <i>Chair: T. Fukui</i>	OS12: Complex Thermofluid System Plasma science and CFD <i>Chair:C.-H. Dylan Tsai</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: T. Yamagata</i>		OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: M. Nakano</i>	OS21: The 18th International Students / Young Birds Seminar on Multi-scale Flow Dynamics		
	9:00-10:00 OS1/3-1 <i>Invited</i> Green Nanotechnology =Atomic Layer Technologies for Nano Materials and Devices= <u>S. Samukawa</u>	9:00-9:20 OS2-4 Experimental Study of Di(2,2,2-trifluoroethyl) Carbonate Oxidation in a Shock Tube and Micro-Flow Reactor with a Controlled Temperature Profile <u>C. Grégoire</u> , <u>K. Kanayama</u> , <u>P. Diévar</u> t, <u>S. Takahashi</u> , <u>T. Tezuka</u> , <u>H. Nakamura</u> , <u>L. Catoire</u> , <u>K. Maruta</u> , <u>E. L. Petersen</u> , <u>O. Mathieu</u>		9:00-9:20 OS11-9 Liver Circulatory Model to Study the Impact of Hepatectomy on Blood Flow and Pressure <u>A. M. Torres Rojas</u> , <u>S. Lorente</u> , <u>M. Hautefeuille</u> , <u>A. S. Cedillo</u>	9:00-9:15 OS12-12 Experimental Study on the Strength and Reversibility of Plasma Bonding with a Micronozzle <u>Y.-H. Liu</u> , <u>C.-H. Dylan Tsai</u>	9:00-9:15 OS13-1 Calibration Test of Binders for the PSP Measurement using MACOR [®] and Ceramic Compounds <u>K. Sasaki</u> , <u>N. Fujimatsu</u>		9:00-9:30 OS7-1 <i>Invited</i> Magnetic Actuators Based on 3D Printed MR Elastomer <u>X. Gong</u>	Poster Presentation 10:00-11:30 OS21-23 - OS21-44		
	10:00-10:30 OS1/3-2 An Accurate And Efficient Scheme To Capture Sharp Interface In High Speed Multiphase Flows <u>T.-Y. Chiu</u> , <u>Y.-Y. Niu</u> , <u>Y.-J. Chou</u>	9:20-9:40 OS2-5 Kinetic Study on Ammonia Oxidation with H ₂ O Addition Using a Micro Flow Reactor with a Controlled Temperature Profile <u>K. Tamaoki</u> , <u>Y. Murakami</u> , <u>K. Kanayama</u> , <u>T. Tezuka</u> , <u>H. Nakamura</u>		9:20-9:40 OS11-10 Flow of a Monolithic Acrylic Microfluidic Pump: Characterization and Immunoassay Trap Compatibility. <u>H. O. Ochoa-Gutiérrez</u> , <u>G. A. Caballero-Robledo</u>	9:15-9:30 OS12-13 Numerical Investigation of the Thermal Flow on Ozone Generation in an Atmospheric Pressure Air Dielectric Barrier Discharge Reactor <u>T. Y. Liao</u> , <u>K. M. Lin</u> , <u>Y. X. Chen</u>	9:15-9:30 OS13-2 Image Alignment Method for Pressure-Sensitive Paint Measurement Without Using Black Markers <u>K. Suzuki</u> , <u>T. Inoue</u> , <u>T. Nagata</u> , <u>M. Kasai</u> , <u>T. Nonomura</u> , <u>Y. Matsuda</u>		9:30-9:50 OS7-2 Flexible Anisotropic Magneto-Sensitive Elastomer Films for Bionic Actuator <u>J. Zhang</u> , <u>Y. Wang</u> , <u>S. Sun</u> , <u>B. Wang</u> , <u>X. Gong</u>			
		9:40-10:00 OS2-6 Study on N ₂ O Reactions with H ₂ and CH ₄ Using a Micro Flow Reactor with a Controlled Temperature Profile <u>T. Harada</u> , <u>Y. Murakami</u> , <u>K. Tamaoki</u> , <u>K. Kanayama</u> , <u>T. Tezuka</u> , <u>H. Nakamura</u>		9:40-10:00 OS11-11 Observation of Neutrophil-like HL-60 Cell Motility under Oxygen Gradient <u>M. Tomita</u> , <u>S. Hirose</u> , <u>K. Funamoto</u>	9:30-9:45 OS12-14 Numerical and Experimental Investigations of the Thermal Flow in an Atmospheric Pressure Helium Plasma Jet <u>Y. H. Wu</u> , <u>K. M. Lin</u> , <u>K. C. Wang</u>	9:30-9:45 OS13-3 Proposal of PSP Measurement Method Under Ambient Light <u>R. Tanaka</u> , <u>S. Katayama</u> , <u>T. Ikami</u> , <u>Y. Egami</u> , <u>H. Nagai</u> , <u>Y. Matsuda</u>		9:50-10:10 OS7-3 An Acoustic Metamaterial using Magnetorheological Elastomer for Vibration Isolation <u>Z. Chen</u> , <u>S. Sun</u> , <u>H. Du</u> , <u>W. Li</u>			
		10:00-10:20 OS2-7 Internal Cathode Tubular Solid Oxide Fuel Cell Operating on Simulated Two-Stroke Internal Combustion Engine Exhaust <u>A. R. Hartwell</u> , <u>C. VanNostrand</u> , <u>H. Kayton</u> , <u>Y. Murakami</u> , <u>H. Nakamura</u> , <u>J. Ahn</u>		10:00-10:20 OS11-12 Influence of Nonlocal Vibration and Elastic Foundation on Bending Dynamics of Nanotubes Conveying Flow <u>U. Torres-Herrera</u> , <u>A. A. Torres</u> , <u>J. O. Casarrubias Flores</u>	9:45-10:00 OS12-15 Effects of Pressure on Hydrogen Plasma Properties of MPCVD <u>B. Wang</u> , <u>C. Wang</u> , <u>H. Li</u> , <u>D. Yang</u> , <u>M. Zhai</u> , <u>S. Wang</u> , <u>A. Avami</u>	9:45-10:00 OS13-4 Flow Topology on the Ahmed Body with a Deflector by a Sub-grid Global Skin-Friction Measurement Method <u>T. H. Tran</u> , <u>M. Hijikuro</u> , <u>M. Anyoji</u> , <u>T. Uchida</u> , <u>T. Nakashima</u> , <u>K. Shimizu</u>		10:10-10:30 OS7-4 A Hybrid Isolation System Using MRE and Inerter Technology for Vibration Control <u>S. Jin</u> , <u>H. Du</u> , <u>W. Li</u> , <u>S. Sun</u>			
10:30											10:30
10:40	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	CON-SAKURA2	Remo	10:40
	OS1&OS3:The Tenth International Symposium on Innovative Energy Research I & III <i>Chair: J. Ishimoto</i>	OS2:Combustion + OS20:Liaison, OS23:Lyon, OS24:C2C Numerical ammonia combustion <i>Chair: K.D.K.A. Somaratne</i>	OS5: Advanced Applications of Multi-functional Fluids Advanced multi-phase flow / Magnetic fluid <i>Chair: H. Takana</i>	OS11: Microfluidics and Microphysiological Modeling <i>Chair: T. Omori</i>	OS12: Complex Thermofluid System Micofluidics and Visualization <i>Chair: Y.-Y. Chiang</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: S. Funatani</i>	OS17: Supercritical Fluid <i>Chair: Y. Kanda</i>	OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair. G. Sebald</i>	OS21: The 18th International Students / Young Birds Seminar on Multi-scale Flow Dynamics		
	10:40-11:10 OS1/3-3 A Numerical Investigation on the Thermo-Hydraulic Performance of Ferro-Nanofluid Flow in Conical Helical Tube Under the Influence of Magnetic Field <u>E.M. Altunay</u> , <u>K. Arslan</u> , <u>M. Teki</u> , <u>H. K. Pazarlıoğlu</u> , <u>M. Ali</u>	10:30-10:50 OS2-8 Large Eddy Simulation of Ammonia Gas Turbine Combustor with ANN Chemistry Tabulation Model <u>N. Kim</u> , <u>Y. T. Guahk</u> , <u>M. Lee</u>	10:40-11:10 OS5-1 <i>Invited</i> Continuous Fabrication of Strong and Conductive Carbon Nanotube/Cellulose Nanofibril Composite Filaments <u>H. G. Wise</u> , <u>A. B. Dichiara</u> , <u>H. Takana</u>	10:40-11:00 OS11-13 Application of Convolutional Neural Network in Micro Particle Velocimetry: Measurements of Two-Dimensional and Three-Dimensional Micro Flow Fields <u>P.-Y. Chou</u> , <u>J.-J. Sheen</u>	10:40-11:00 OS12-17 Microparticle Formation with Different Impact Speeds <u>C.-H. Dylan Tsai</u> , <u>H.-Z. Lu</u> , <u>J.-J. Hu</u>	10:40-10:55 OS13-6 Modal Decomposition of Fluid Motion in Blade-Free Planetary Mixer <u>T. Yamagata</u> , <u>T. Igarashi</u>	11:00-11:40 OS17-1 <i>Invited</i> Drag Force, Heat Transfer, and Porous Structure Behavior of Particles with Stefan Flow in the Supercritical Water <u>H. Jin</u> , <u>Y. Wang</u> , <u>C. Fan</u>	10:40-11:10 OS7-5 <i>Invited</i> New Liquid-Metal Magnetorheological Elastomer Composites <u>Q. Zhang</u> , <u>W. Li</u>	Poster Presentation 10:00-11:30 OS21-23 - OS21-44		
	11:10-11:40 OS1/3-4 Influence of Positive Bias Voltage Variation on Microwave Plasma Characteristics <u>B. Wang</u> , <u>H. Li</u> , <u>C. Wang</u> , <u>D. Yang</u> , <u>M. Zhai</u> , <u>S. Wang</u>		11:10-11:30 OS5-2 Development of Microscale pH Sensor Using Ionic Current Rectification <u>T. Kishimoto</u> , <u>K. Doi</u>	11:00-11:20 OS11-14 Microfluidic Experiment about Hypoxic Responses of Vascular Endothelial Cells Under Hyperglycemia <u>K. Sone</u> , <u>S. Hirose</u> , <u>D. Yoshino</u> , <u>K. Funamoto</u>	11:00-11:20 OS12-18 Visualization of Streaming Flow Patterns Near the Slits of Smart-Phone Speaker Module <u>W.-H. Tien</u> , <u>Y.-Y. Lin</u> , <u>L. Chen</u> , <u>W.-X. Lin</u> , <u>Y.-Y. Chen</u> , <u>X.-H. Xu</u> , <u>K.-S. Chang</u>	10:55-11:10 OS13-7 Numerical Investigation of Aerosol Blocking Effect by Desktop Air Curtain Device <u>H. Muto</u> , <u>K. Takamure</u> , <u>D. Kobayashi</u> , <u>T. Haruki</u> , <u>H. Amano</u> , <u>T. Yagi</u> , <u>Y. Iwatani</u> , <u>T. Uchiyama</u>		11:10-11:30 OS7-6 Stretchable and Recyclable Liquid Metal Droplets Embedded Elastomer Composite with High Mechanically Sensitive Conductivity <u>X. He</u> , <u>J. Wu</u> , <u>S. Xuan</u> , <u>S. Sun</u> , <u>X. Gong</u>			

	10:50-11:10 OS2-9 Large Eddy Simulations of Turbulent Non-premixed Ammonia/Hydrogen Jet Flames at Elevated Pressure Using Flamelet-Progress Variable and Principal Component Analysis <u>S. Abdelwahid</u> , <i>M. R. Malik, H. A. Al Kader Hammoud, F. E. Hernández Pérez, B. Ghanem, H. G. Im</i> 11:10-11:30 OS2-10 Lewis Number Effect on Turbulent Premixed Ammonia Flame <u>R. Khamedov</u> , <i>W. Song, M. R. Malik, F. E. Hernández Pérez, H. G. Im</i> 11:30-11:50 OS2-11 Combustion and NOx Emission of Opposed-jet C₂H₄/N₂O Diffusion Flames <u>C.-W. Huang</u> , <i>C. Dong, T. Hirasawa, H.-Y. Shih</i> 11:50-12:10 OS2-12 Combustion Process in NH₃ Stratified Spray Flame for Large Two-Stroke Marine Engine <u>Y. Ichikawa</u> , <i>Y. Niki, K. Takasaki, H. Kobayashi, A. Miyanagi</i>	11:30-11:50 OS5-3 Preliminary Experimental Study on the Liquid-gas Segmented Flow with A Thermomagnetic Pump <i>J.-Y. Ji</i> , <u>Y.-E. Tsai</u> , <i>C.-Y. Huang</i> 11:50-12:10 OS5-4 Effect of External Magnetic Field on Dynamic Mechanical Properties of Permanent Magnet Elastomers <u>Y. Iwamoto</u> , <i>Y. Kawata, Y. Ido, H. Sakamoto</i>	11:20-11:40 OS11-15 Numerical Study of Particle Migration in Asymmetric Velocity Profiles. <i>R. Naito</i> , <i>T. Fukui</i> 11:40-12:00 OS11-16 Electroviscous Effects in the Electrolyte Liquid Flow through Heterogeneously Charged Uniform Slit Microfluidic Device <i>J. Dhakar</i> , <i>R. P. Bharti</i>	11:20-11:35 OS12-19 Bio-Satellite with Integrated Microfluidic Device for Deep-Space Biological Study <i>P.-R. Huang</i> , <i>J.-W. Chang, S.-Y. Huang, C.-C. Huang, Y.-C. Chen, Y.-Y. Chiang</i> 11:35-11:50 OS12-20 Development of Two-color Pressure-sensitive Paint for Simultaneous Pressure and Temperature Measurements <i>W.-C. Chen</i> , <u>S.-J. Fu</u> , <i>C. -Y. Huang</i> 11:50-12:05 OS12-21 Experimental Heat Transfer Analysis Of Microchannel Flow With Inclined Flat Plate Obstruction And Sidewall Heating <i>Y.-C. Fan</i> , <u>P.-C. Wang</u> , <i>T.-M. Liou, C.-Y. Huang</i>	11:10-11:25 OS13-8 Experimental Investigation of Aerosol Blocking Effect by Desktop Air Curtain Device <i>D. Kobayashi</i> , <i>H. Muto, T. Haruki, K. Takamure, H. Amano, T. Yagi, Y. Iwatani, T. Uchiyama</i> 11:25-11:40 OS13-9 Flying Yeast: Aerosol Particles Released during the Fermentation <i>R. Onishi</i> , <i>K. Kikuchi, T. Ishikawa</i>		11:30-11:50 OS7-7 Magnetic Flexible Sensor with Tension and Bending Discriminating Detection <i>Q. Shu</i> , <i>H. Deng, S. Xuan, X. Gong</i> 11:50-12:10 OS7-8 Performance of Shear Thickening Fluids at Low Temperatures <i>T. Tian</i> , <i>V. Sokolovski, W. Li, J. Ding</i>				
12:10		Exhibitor Presentation Session 12:15- Nobby Tech. Ltd. 12:30- nac Image Technology Inc. 12:45- PHOTRON LIMITED	BREAK							12:10	
13:10	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	CON-SAKURA2	Remo	13:10
		OS2:Combustion + OS20:Liaison, OS23:Lyon, OS24:C2C Flame dynamics 1 <i>Chair: K. Maruta</i>	OS5: Advanced Applications of Multi-functional Fluids Thermal plasma <i>Chair: T. Fujino</i>	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 14th Edition Engine Development and Instrumentation <i>Chair: T. Shimada</i>	OS12: Complex Thermofluid System Magnetohydrodynamic <i>Chair: W.-H. Wang</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: T. Yamagata</i>	OS17: Supercritical Fluid <i>Chair: Y. Kanda</i>	OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: W. Li</i>	OS21: The 18th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	OS22: IFS Collaborative Research Forum (AFI-2022)	
	13:10-13:50 OS2-13 <i>Invited lecture</i> Non-equilibrium Chemistry and Dynamics in Plasma Aided Combustion and Manufacturing <u>Y. Ju</u> , <i>H. Zhong, C. Burger, M. Vorenkamp</i> 13:50-14:10 OS2-14 Influence of n-Pentanol Blending on Soot in Spray Combustion of Kerosene <i>R. B. Vishwanath, P. A. Carniglia, J. K. Weber, Ö. L. Gülder</i> 14:10-14:30 OS2-15 Flame Propagation Regimes for Hydrogen-Air Mixtures at Cryogenic Temperatures <u>M. Kuznetsov</u> , <i>A. Denkevits, A. Friedrich, A. Vesper</i>	13:30-13:50 OS5-5 Gasification of Livestock Manure Fuel by Using a Lab-Scale Three Phase AC (Alternative Current) Arc Plasma Torch <u>D.-H. Lee</u> , <i>D. Figuera-Michal, H.-J. Kim, S.-Y. Yang, J.-H. Seo</i> 13:50-14:10 OS5-6 Effects of Operating Condition on Methane Pyrolysis Process Using Thermal Plasma <u>Y. H. Lee</u> , <i>J.-H. Oh, S. Choi</i> 14:10-14:30 OS5-7 Investigation On Melting Process Of Non-Combustible Wastes By Using A Reverse-Polarity Hollow Electrode Plasma Torch With Power Level Of 100 Kw <u>D. Figuera-Michal</u> , <i>D.-H. Lee, H.-W. Park, N.-K. Lee, J.-H. Seo</i>	13:10-13:40 OS4-1 Preliminary Study of Copper-Infused Electrically Conductive Polymer Igniter for Rocket Ignition <u>Y. A. M. Leung</u> , <i>S. Hirai, Y. Nobuhara, L. T. Kamps, H. Nagata</i> 13:40-14:10 OS4-2 Experiment about Heat Transfer Characteristics of Liquid Oxygen Flow in a Thin Tube Surrounded by Air <u>K. Tanaka</u> , <i>K. Matsui, K. Kitagawa</i> 14:10-14:40 OS4-3 One-Dimensional Model for the Study of Helical Cooling Channels Based on Cryogenic Oxygen in Hybrid Rocket Engines <u>G. Gallo</u> , <i>S. Hirai, L. Kamps, H. Nagata</i>	13:10-13:25 OS12-22 Prediction of Axisymmetric Thermal Plasma Flow via a Non-orthogonal Grid Approach <i>W.-Y. Huang</i> , <u>S.-W. Chau</u> 13:25-13:40 OS12-23 A Rotating Rod Model for the Viscosity of Ferrofluids <u>U. Lei</u> 13:40-13:55 OS12-24 Motion of a Micro-magnetic-particle Chain in a Rotating Field <u>S.-L. Liao</u> , <i>C.-R. Li, C.-Y. Chen</i> 13:55-14:10 OS12-25 Effect of Reynolds Number Based on Lorentz Force to Flow Transition of Magnetohydrodynamic Jet <i>J.-H. Cheng, L.-W. Cheng, C.-Y. Chen</i>	13:10-13:25 OS13-10 Direct Skin Friction Measurement on Hypersonic Models <u>S. Pathan</u> , <i>M. Kshetrimayum, V. Menezes, C. S. Yerramalli</i> 13:25-13:40 OS13-11 Investigation of Draft Tube Shape for a Cross-flow Turbine with Guide Wall and Cavity <i>T. Sakai</i> , <i>Y. Hayashi, S. Iio, T. Kitahora, Y.-D. Choi, M. Inagaki</i> 13:40-13:55 OS13-12 Influence of the Nozzle Disk and Runner Clearance on Noise and Performance of a Submerged Impulse Turbine <u>S. Rin</u> , <i>T. Saito, S. Iio, D. Tsunashima</i>	13:10-13:30 OS17-2 Preliminary Modeling and Analysis of Supercritical CO₂ Heat Transfer Flow in Porous Media on-Chip: Effect of Inflow Conditions and Heat Input <u>M. Chen</u> , <i>L. Chen</i> 13:30-13:50 OS17-3 Impact of Capillary and Viscous Forces on Distinct Regimes of sCO₂ / Water Displacement in Heterogeneous Micromodels <u>K. Raqui</u> , <i>L. Chen, Y. Kanda, A. Komiya</i> 13:50-14:10 OS17-4 Endothermic Characterization on Hydrocarbon Fuel under Supercritical State <u>T. Isono</u> , <i>T. Miyaura, Y. Daimon, T. Onodera, S. Tomioka</i>	13:10-13:40 OS7-9 <i>Invited</i> Are Charge Carriers Responsible for the Electroactivity of Polyurethane? <i>G. Coativy, K. Yuse, G. Diquet, L. Seveyrat, V. Perrin, F. Dalmas, S. Livi, J. Courbon, H. Takana, J. Y. Cavaillé</i> 13:40-14:10 OS7-10 <i>Invited</i> Grease Lubrication To Improve Tribological Properties Of Steel / Polymer Contacts <u>V. Fridrici</u> , <i>T. Kunishima, P. Papsa</i> 14:10-14:40 OS7-11 <i>Invited</i> Study on Suction Cups Utilizing Magneto-Rheological Fluids <i>H. Tsukagoshi</i> , <i>K. Hama, M. Nakano</i>	Poster Presentation 13:10-14:40 OS21-45 - OS21-66	Free Discussion 2 CRF-25 to 40 (Remo)		

14:40					14:10-14:25 OS12-26 Experimental Study of Magnetohydrodynamic Jet <u>Y.-H. Chen</u> , <u>Y.-R. Wei</u> , <u>J.-S. Liou</u> , <u>C.-Y. Chen</u>	13:55-14:10 OS13-13 Investigation of the Flow Field around a Guide Vane in a Cross- flow Turbine at Partial Load Operation <u>K. Aiba</u> , <u>M. Fujimori</u> , <u>K. Otsuka</u> , <u>S. Iio</u>	14:10-14:30 OS17-5 Hydrogen Production from Formic Acid Decomposition in Gas Phase and Supercritical Water: A Comparative Kinetic Study <u>G. Li</u> , <u>H. Chen</u>			
	BREAK									
14:50	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	CON-SAKURA2	Remo
	OS22: Fluids Science Research Award Lecturers	OS24:C2C & OS2:Combustion + OS20:Liaison, OS23:Lyon <i>Chair: E. C. Okafor</i>	OS5: Advanced Applications of Multi- functional Fluids MHD/Material process <i>Chair: N. Takeuchi</i>	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 14th Edition Performance Improvement and Evaluation <i>Chair: K. Sawada</i>	OS12: Complex Thermofluid System CFD <i>Chair: S. W. Chau</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: K. Funamoto</i>	OS17: Supercritical Fluid <i>Chair: Y. Hu</i>	OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: X. Gong</i>		OS22: IFS Collaborative Research Forum (AFI-2022)
	14:50- 15:15 FRA-1 Trends and Future Prospects of Patient-Specific Blood Flow Simulation <u>M. Oshima</u>	14:50-15:15 OS24-1 <i>Invited</i> Ammonia for gas turbine fuelling applications - FLEXnCONFU program <u>S. Mashruk</u>	14:50-15:10 OS5-8 Numerical Prediction of Influence of MHD Flow Control on Radiative Heating in Mars Entry <u>K. Tabuchi</u> , <u>T. Fujino</u>	14:50-15:20 OS4-4 Effects of Adding Boron and Aluminum Powders to WAX- based Solid Fuels to Improve Hybrid Rocket Performance <u>A. Kawasumi</u> , <u>A. Takahashi</u> , <u>A. Banno</u> , <u>K. Takahashi</u>	14:50-15:05 OS12-28 Numerical Study of the Effects of Dilution Gas for the Formation of CJ Plane During the Oblique Detonation <u>Y.-J. Wu</u> , <u>Y.-Y. Niu</u>	14:50-15:05 OS13-15 Development of a Simultaneous Measurement Method for Volumetric Flowrates of Each Phase of Gas-Liquid Two-Phase Flow <u>S. Miyamoto</u> , <u>Y. Sakamoto</u> , <u>K. Horie</u> , <u>T. Uchiyama</u> , <u>K. Takamure</u> , <u>H. Nakayama</u>	14:50-15:10 OS17-6 Visualization of Acetone Diffusion in Highly Pressurized CO ₂ using Phase-shifting Interferometer <u>R. Mukai</u> , <u>Y. Kanda</u> , <u>Y. Hu</u> , <u>L. Chen</u> , <u>A. Komiya</u>	14:50-15:20 OS7-12 <i>Invited</i> MR Effect Enhancement of MR Fluid Porous Composites <u>M. Nakano</u> , <u>Y. Takano</u>		Free Discussion 3 CRF-41 to 61
	15:20-15:45 FRA-2 Hydrodynamics and behavioral dynamics of swimming microorganisms <u>T. Ishikawa</u>	15:15-15:40 OS24-2 <i>Invited</i> The challenge to consider ammonia as fuel for transport applications <u>C. Rousselle</u>	15:10-15:30 OS5-9 Plasma Behavior and Power Generation Characteristics in an Experimental Argon Plasma MHD Generator <u>K. Ork</u> , <u>Y. Okuno</u>	15:20-15:50 OS4-5 Study on Cellulose Addition to WAX-based Solid Fuels for Hybrid Rockets <u>Y. Nishimura</u> , <u>A. Takahashi</u> , <u>A. Banno</u> , <u>K. Takahashi</u>	15:05-15:20 OS12-29 Numerical Study on the Interaction of Compressible Gas-Liquid Reacting Flows <u>P.-H. Chiu</u> , <u>Y.-Y. Niu</u>	15:05-15:20 OS13-16 Collection Performance of Oil Mist in T-shaped Mist Trap <u>S. Ando</u> , <u>K. Takamure</u> , <u>T. Uchiyama</u> , <u>H. Nakayama</u>	15:10-15:30 OS17-7 Dynamic Behaviors of Near- critical CO ₂ Fluid under Confinement Effect of a Nano- scale SiO ₂ Channel <u>Z.-Y. Liu</u> , <u>L. Chen</u>	15:20-15:40 OS7-13 Model Based Characterization of Novel Dry MR Fluid Rotary Damper with Variable Stiffness for Vibration Control of A Building Structure Mode <u>J. Yang</u> , <u>S. Sun</u> , <u>O. Taguchi</u> , <u>M. Nakano</u>		
	15:50-16:15 FRA-3 Detonation Fluid Dynamics Phenomena and Its Application to Aerospace Propulsion <u>J. Kasahara</u>	15:40-16:00 OS2-16 Studying NH ₂ * and NH* Chemiluminescence During NH ₃ Oxidation in a Shock Tube M. Khan-Ghauri, <u>C. M. Grégoire</u> , <u>O. Mathieu</u> , <u>E. L. Petersen</u>	15:30-15:50 OS5-10 Numerical Analysis of Supersonic, Nonequilibrium Inductively Coupled Plasma Jet in Plasma- Assisted Aerosol Deposition <u>Y. Akedo</u> , <u>K. Ino</u> , <u>K. Shinoda</u> , <u>T. Fujino</u>	15:50-16:20 OS4-6 Study on the Method of Measuring Real Time O/F of a Hybrid Rocket <u>I. Nakagawa</u>	15:20-15:35 OS12-30 The Hydrodynamic Characteristics of a Swimming Rhynchobatus Australiae by Immersed Boundary Method <u>J. K. Lewis</u> , <u>H.-T. Lin</u> , <u>W.-H. Wang</u>	15:20-15:35 OS13-17 Flow Regime Classification for Upward Two-phase Flow in a Rectangular Tube using Unsupervised Learning <u>H.-Y. Chen</u> , <u>S.-W. Chen</u> , <u>Y.-M. Hsu</u> , <u>L.-T. Wu</u>	15:30-15:50 OS17-8 Explosive Breakup and Evolution of the Gas Layer around a Pulse- Heated Microwire in Sub- and Supercritical CO ₂ <u>G. Wang</u> , <u>Z.-C. Hu</u>	15:40-16:00 OS7-14 Development of a New MR Vibration Isolation System with Highly Stable and Wide Zero Stiffness Range Characteristics <u>S. Sun</u> , <u>J. Yang</u> , <u>M. Nakano</u> , <u>W. Li</u>		
		16:00-16:20 OS2-17 Investigation of the Chemiluminescence Signature of Ammonia Flames <u>A. Karan</u> , <u>G. Dayma</u> , <u>C. Chauveau</u> , <u>F. Halter</u>	15:50-16:10 OS5-11 Hydrogen Diffusion and Desorption After Sodium-Water Reaction <u>A. Suzuki</u> , <u>M. Miyano</u> , <u>R. Miura</u>		15:35-15:50 OS12-31 An CFD Investigation of Natural Convection by Heating Plates with Multi-GPU Implementation <u>H.-C. Chang</u> , <u>W.-H. Wang</u>	15:35-15:50 OS13-18 Flow Regime Identification for Air-Water Two-phase Flow in a 3× 3 Rod Bundle by K-means Clustering <u>H.-J. Lee</u> , <u>S.-W. Chen</u> , <u>L.-H. Huang</u> , <u>P.-S. Ruan</u> , <u>M.-S. Lin</u>		16:00-16:20 OS7-15 Design of a Stiffness-Tunable and Energy-Efficient Hand Exoskeleton for Enhancement of Grip Endurance and Strength <u>X. Mai</u> , <u>S. Sun</u> , <u>J. Yang</u>		
16:20	BREAK									

16:30	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	CON-SAKURA2	Remo	16:30
		OS24:C2C & OS2:Combustion + OS20:Liaison, OS23:Lyon Chair: T. Tokumasu	OS5: Advanced Applications of Multi- functional Fluids Material process Chair: K. Doi	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 14th Edition System Analysis, Design and Development Chair: T. Shimada	OS12: Complex Thermofluid System Heat Transfer and Fluid Flow Chair: C.-Y. Chen	OS13: Flow Realization, Measurement and Visualization Chair: S. Iio		OS7: Smart Fluids & Soft Matters and Their Advanced Applications Chair: M. Nakano			
		16:30-16:55 OS24-3 Invited Circular economic hydrogen production system for synthetic ammonia combustion C.-H. Lan	16:30-16:50 OS5-12 Attempt to Reduce the Internal Stresses Generated in Steel by a Laser Deposition Process A. Kulish, J. Rech, F. Salvatore, J. Courbon	16:30-17:00 OS4-7 Research on the Fuel Fragmentation for the Safety of Hybrid Rocket Propellants A. Takahashi, N. Kanasashi, R. Saito, H. Yuki, K. Takahashi	16:30-16:45 OS12-34 Thermal Performance Analysis of the Multiple GaN Chips based Power Module S. Cheng, S. Elangovan, E. Y. Chang	16:30-16:45 OS13-20 RANS Simulations of Elliptic Underexpanded Sonic Jets T. Nagata, S. Nakao, Y. Miyazato		16:30-17:00 OS7-16 Invited Elastocaloric Rubber Based System for New Refrigeration Solutions G. Sebald, G. Lombardi, A. Komiya, G. Coativy, J. Jay, L. Lebrun			
		16:55-17:20 OS24-4 Invited How does the degradation of thermal barrier coatings change under oxidizing and reducing environments? K. Ogawa	16:50-17:10 OS5-13 Synthesis of Carbon Catalysts Using Ultrasonic Cavitation Plasma for Oxygen Reduction Reaction R. Harakawa, N. Takeuchi, S. Zen, S. Imaizumi, H. Takana, O. L. Li	17:00-17:30 OS4-8 Summary of Hybrid Rocket Research Presented at ICFD Between 2009 and 2022 T. Shimada	16:45-17:00 OS12-35 Numerical Simulation of a Converging-Diverging Nozzle for Trilateral Flash Cycle Application J.-W. Yeh, C.-H. Huang, Y.-H. Liu	16:45-17:00 OS13-21 RANS Simulations of Rectangular Underexpanded Microjets S. Yoshimi, S. Nakao, Y. Miyazato		17:00-17:20 OS7-17 Hill Climbing Characteristics of Self-propelling Drops on Heated Ratchets with Hybrid Wettability Surfaces T. Shirahama, T. Okabe, M. Shirota			
		17:20-17:40 OS2-18 Emission Characteristics of Liquid Ammonia and Gaseous Ammonia Flames Co-fired with Gaseous Hydrogen in a Gas Turbine-like Combustor at Moderately High Pressure K.D.K.A. Somarathne, H. Yamashita, S. Colson, A. Hayakawa, T. Kudo, H. Kobayashi			17:00-17:15 OS12-36 Measurement of Non-condensable Air Concentration in Refrigerant R-141b by the Method of Wavefront Sensing M.-Y. Chung, H.-M. Tu, A.-C. Wei, C.-Y. Yang, J.-R. Sze	17:00-17:15 OS13-22 Study of Microjet Structure from Axisymmetric Supersonic Nozzles T. Tashiro, S. Nakao, Y. Miyazato, Y. Ishino					
		17:40-18:00 OS2-19 Extinction Limits of CH ₄ /NH ₃ /N ₂ versus High-Temperature Air Nonpremixed Counterflow Flames Y. Murakami, T. Tezuka, H. Nakamura			17:15-17:30 OS12-37 Characteristic of Transition between Oscillating and Pulsating- Circulating Flows for Pulsating Heat Pipes S. Ouchi, K. Kurose, K. Miyata	17:15-17:30 OS13-23 Unsteady Characteristics of Shock Trains in Constant-Area Straight Ducts T. Inadomi, S. Nakao, Y. Miyazato					
					17:30-17:45 OS12-38 Thermal Performance of Solid and Hollow Pin-fin Heat Sinks A. Tiwari, A. K. Patil, M. Kumar						
					17:45-18:00 OS12-39 Steady Flow of Power-law Fluids Over Two Rotating Cylinders in Side-by-side Arrangement L. Malviya, R. P. Bharti						
18:00											18:00

9:00	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	Remo	9:00
	OS2:Combustion + OS20:Liaison , OS23:Lyon , OS24:C2C Flame dynamics II <i>Chair: Y. Murakami</i>		OS6: Free Flight Experiment with MSBS and Ballistic Range <i>Chair: S. Obayashi</i>	OS9: Biomedical Flow Dynamics & OS10: Biomolecular Dynamics <i>Chair: K. M. Saqr, T. Nakayama, K. Etchuya</i>	OS15: Turbulence: from Fundamentals to Applications Modeling <i>Chair: Y. Hattori</i>		
	9:00-9:20 OS2-20 Numerical Analysis of Flame Behavior Initiated from Flame Ball and Hot Spherical Zone in Counterflow Field <u>K. Sagawa</u> , <i>T. Akiba, A. Tsunoda, Y. Morii, H. Nakamura, K. Maruta</i>		9:00-9:30 OS6-1 <i>Invited</i> An Investigation of Bluff Body Blockage Corrections Using the NASA/ODU 6-inch MSBS <u>C. P. Britcher</u> , <i>B. McGovern, D. E. Cox, M. Schoenenberger</i>	9:00-9:40 OS9-1 <i>Invited</i> A Relationship between Pathology and Physics in the Progression of Intracranial Aneurysms <u>T. Yagi</u>	9:30-9:50 OS15-1 Searching for a Wall Model in LES using a Data-Driven Approach <u>G. Tabe Jamaat</u> , <i>Y. Hattori</i>		
	9:20-9:40 OS2-21 Near Lean/Rich Limits Behaviors and Local Stoichiometries of Flame Balls, Counterflow Flames, and Planar Flames in a CH ₄ /O ₂ /Xe Mixture <u>A. Tsunoda</u> , <i>T. Akiba, H. Nakamura, Y. Morii, T. Tezuka, K. Maruta</i>		9:30-9:50 OS6-2 Evaluation of Reentry Capsule Magnetic Levitation Towards Wind Tunnel Testing <u>C. Inomata</u> , <i>S. Yokota, T. Nonomura</i>	9:40-9:55 OS9-2 A ConvNeXt-backbone Model with Multi-channel Photometric Distortion for Malignant Tumor Segmentation and Localization of Oropharyngeal Squamous Cell Carcinoma and Esophageal Squamous Cell Carcinoma <u>K.-T. Kao</u> , <i>M.-S. Hsieh, R.-F. Chang</i>	9:50-10:10 OS15-2 On the Explicit Structure of the Spectrum of Internal Vibrations for Stratified Rotating Flows <u>A. Giniatoulline</u>		
	9:40-10:00 OS2-22 Instability of Expanding Hydrogen/air Flames at Normal and Cryogenic Temperatures <u>L. Yang</u> , <i>Z. Chen</i>		9:50-10:10 OS6-3 Flow Field and Aerodynamic Characteristics of Next-generation Re-entry Capsules of Different Shapes at Transonic Free Flight <u>Y. Takikawa</u> , <i>Y. Hosono, K. Takahashi, T. Ogawa, H. Nagai, K. Yamada</i>	9:55-10:10 OS9-3 Comparing the Pharmacokinetic Parameters of ICG via Lymphatic Drug Delivery and the Intravenous Injection <u>N. Bridget</u> , <i>A. Sukhbaatar, T. Kodama</i>	10:10-10:30 OS15-3 Effect of Large Scale Motions on Taylor's Hypothesis and Attached Eddy Model <u>Y. Tsuji</u> , <i>K. Mizuno, Y. Yamamoto</i>		
	10:00-10:20 OS2-23 Transverse Mode Dynamics in a Lean-premixed Multislit Hydrogen Combustor <u>D. Park</u> , <i>K. T. Kim</i>		10:10-10:30 OS6-4 Effect of Reynolds Number on Critical Geometry of Magnetically Supported Cylinder Body <u>K. Fuchigami</u> , <i>H. Okuizumi, S. Yokota, S. Obayashi, T. Nonomura</i>	10:10-10:25 OS10-1 Acquisition of Anti-tumor Immunity by Local Irradiation and its Application to Radioimmunotherapy <u>S. Kuriu</u> , <i>R. Mishra, A. Sukhbaatar, S. Mori, T. Kodama</i>			
10:30	BREAK						10:30
10:40	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	Remo	10:40
	OS2:Combustion + OS20:Liaison , OS23:Lyon , OS24:C2C Flame dynamics III <i>Chair: S. Colson</i>	GS: General Session Numerical simulation <i>Chair: A. Yakeno</i>	OS6: Free Flight Experiment with MSBS and Ballistic Range <i>Chair: K. Seo</i>	OS9: Biomedical Flow Dynamics <i>Chair: H. Anzai, M. Zhang</i>	OS15: Turbulence: from Fundamentals to Applications Shear Flow Turbulence <i>Chair: Y. Tsuji</i>		
	10:40-11:00 OS2-24 Pairing Asymmetry-induced Collective Dynamics of Lean-premixed Model Gas Turbine Combustors <u>D. Bae</u> , <i>K. Moon, K. T. Kim</i>	10:40-11:00 GS1-1 Effect of Media Permeability of Plane Couette Flow in Superposed Fluid-Porous System for Heavy Oil <u>N. Barman</u> , <i>P. Bera</i>	10:40-11:00 OS6-5 Time-Resolved Stereo PIV Measurement with 0.3-m MSBS toward Analysis of Three-Dimensional Wake Structure behind Freestream-Aligned Circular Cylinder <u>S. Yokota</u> , <i>T. Nonomura</i>	10:40-11:20 OS9-4 <i>Invited</i> A Plausible Explanation For The Frequency Of Cough. Pulsatile Parallel Flow Of Air And Mucus In The Trachea. <u>P. Alberto de la Guerra</u> , <u>E. Corvera Poiré</u>	10:40-11:00 OS15-4 Turbulence Statistics of Logarithmic Region in Pipe Flow at High Reynolds Number <u>N. Furuichi</u> , <i>M. Ono, Y. Tsuji</i>		
	11:00-11:20 OS2-25 Analysis of Ignition-to-Flame Propagation Transition Using a Flame in Front of High Temperature Wall and Counterflow Flames <u>D. Nakao</u> , <i>K. Akita, Y. Hirano, T. Tezuka, Y. Morii, H. Nakamura, K. Maruta</i>	11:00-11:20 GS1-2 Investigation of Collision and Forcing Schemes in Lattice-Boltzmann Method for Multiphase Flows <u>J. Restrepo-Cano</u> , <i>F. E. Hernández Pérez, T. Lei, K. H. Luo, H. G. Im</i>	11:00-11:20 OS6-6 Measurement of Aerodynamic Forces Acting on a Vibrating Javelin <u>R. Ishiai</u> , <i>K. Seo, D. Tsudou, R. Sakaue, H. Okuizumi, Y. Konishi, S. Obayashi, S. Ito, M. Hiratsuka</i>	11:20-11:35 OS9-5 Ballistic Delivery of Microliquid Jets: Analysis for Drug Delivery <u>P. Hankare</u> , <i>V. Menezes</i>	11:00-11:20 OS15-5 The Characteristics of Elongated Large-Scale Structures in a Wall-Confined Shear Layer <u>T. Akao</u> , <i>T. Watanabe, K. Nagata</i>		
	11:20-11:40 OS2-26 Numerical Study on the Effect of Initial Ignition Condition on Flame Propagation of Dimethyl Ether (DME)/Air Mixture <u>A. Hashimoto</u> , <i>K. Akita, Y. Morii, K. Maruta</i>	11:20-11:40 GS1-3 Validation of Special Relativistic Magnetohydrodynamics Models by Scale Analysis <u>S. Yoshino</u> , <i>M. Hirota, Y. Hattori</i>		11:35-11:50 OS9-6 Virtual Angiography for Evaluation of Velocity Estimation Method <u>Y. Kohata</u> , <i>M. Decroocq, S. Rit, C. Frindel, M. Ohta, H. Anzai</i>	11:20-11:40 OS15-6 Extraction of Boundary Layer Transition Process Using Controlled Free Stream Disturbance and Ensemble Averaging <u>A. Yoshida</u> , <i>T. Anada, R. Takai, K. Matsui, K. Kato, M. Matsubara</i>		
	11:40-12:00 OS2-27 Numerical Simulation of Pulsating Methane Flame Characteristics under DC Electric Field <u>H. Li</u> , <i>B. Wang, C. Wang, Z. Ma, M. Zhai</i>	11:40-12:00 GS1-4 Wall Heat Flux Estimation using the Cartesian Cut-Cell Method <u>Y. Takeda</u> , <i>N. Baba, K. Ueno</i>		11:50-12:05 OS9-7 In Vivo Pharmacokinetic Profiling of Solvents of Varying Osmotic Pressures and Viscosities <u>R. Mishra</u> , <i>A. Sukhbaatar, S. Mori, T. Kodama</i>	11:40-12:00 OS15-7 Nozzle-geometry Dependence of Diffusion Characteristics in Lobed Jets <u>R. Fukui</u> , <i>M. Takahashi, K. Tsujimoto, T. Ando, T. Shakouchi</i>		
12:10	BREAK						12:10

13:10	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	Remo	13:10
	OS2:Combustion + OS20:Liaison , OS23:Lyon , OS24:C2C Kinetics and blened fuel combustion <i>Chair: H. Nakamura</i>	GS: General Session Flow dynamics 1 <i>Chair: I. Oshima</i>	OS19: Fluid Flow Experiment in Geoscience <i>Chair: Y. Mukuhira</i>	OS9: Biomedical Flow Dynamics <i>Chair: K. Takashima, Y. Li</i>	OS15: Turbulence: from Fundamentals to Applications Fundamental Aspects of Turbulence <i>Chair: T. Ishihara</i>		
	13:10-13:30 OS2-28 Simplification of Ionization Reaction Mechanism for Methane Combustion <i>C. Wang , B. Wang, H. Li, Z. Ma, M. Zhai, A. Avami</i>	13:10-13:30 GS1-5 Numerical Analysis for Performance Prediction of Urea SCR System Using PIV Measurement and Discrete Droplet Model <i>S. Nara , R. Osada, N. Sugiyama, Y. Kawamoto, S. Takahashi, M. Ochiai, T. Nohara, K. Osumi, N. Ishikawa</i>	13:10-13:40 OS19-1 <i>Invited</i> In-situ CT-assisted Experimental Observation of Hydro-Mechanical Behavior of Misaligned Granite Fractures <i>L. Zhuang , C. Sun, C. Pham, S. Yeom, H.-S. Shin</i>	13:10-13:30 OS9-8 <i>Invited</i> Virtual Multilayer Stenting Simulation based on Spring-Mass Analogy <i>M. R. Sudrajat , B. Nainggolan, M. Hilliard, N. K. Putra</i>	13:20-14:00 OS15-8 <i>Invited</i> Physical Insights on Turbulence from Numerical Simulation of Dissipative Weak Solution to the Euler Equations <i>T. Matsumoto</i>		
	13:30-13:50 OS2-29 Generating Compact Reaction Models for Methane and Natural Gas Using Genetic Algorithms <i>K. Hirose , Y. Murakami, K. Shimoyama, H. Nakamura</i>	13:30-13:50 GS1-6 Mode Switching in Compressible Cavity Flow <i>Y.-X. Huang , K.-M. Chung</i>	13:40-14:00 OS19-2 Visual Observation of the Pore Pressure-induced Shear Slip in Granite Fracture <i>D. Asahina , T. Takemura, T. Endo, Y. Tsukurimichi</i>	13:30-13:50 OS9-9 <i>Invited</i> Geometrical Analysis of Standard Cerebrovascular Coordinates <i>H. Anzai , K. Kitamura, N. Mori, S. Mugikura, M. Ohta</i>	14:00-14:20 OS15-9 Global- and Local-Analysis of Velocity Field in Grid Turbulence <i>Y. Zheng , T. Watanabe, K. Nagata</i>		
	13:50-14:10 OS2-30 Combustion Analysis of CH ₄ /NH ₃ Blended Fuels Applied in a Can Combustor for a Micro Gas Turbine <i>S.-P. Ho , C. Cheng, H.-Y. Shih</i>	13:50-14:10 GS1-7 Ground Effect Acting on the Insect-like Wing <i>S.-I. Yeh , Y.-H. Lee</i>	14:00-14:20 OS19-3 Photoelastic Experiments to Visualize the Stress Distribution during the Fluid Injection <i>N. Yoshimitsu , S. Hirano, E. Fukuyama</i>	13:50-14:05 OS9-10 A Closed-loop Geometric Multi-scale Model for Predicting Instantaneous Wave-free Ratio Based on Coronary Pre-arterioles Compensation <i>J. Liu , B. Li, L. Zhang, M. Zhang, A. Qiao, Y. Liu</i>	14:20-14:40 OS15-10 Laminarization in Subcritical Taylor–Couette–Poiseuille Flow with Increasing Pressure Gradient <i>Y. Matsukawa , T. Tsukahara</i>		
	14:10-14:30 OS2-31 Ammonia/Hydrogen Blend Combustion Characteristics under High Pressure <i>C. Wang , H. Li, B. Wang, L. Guo, M. Zhai, A. Avami</i>	14:10-14:30 GS1-8 Experimental Investigation on the Initiation of Low Speed Liquid Droplet Impingement Erosion <i>K. Fujisawa</i>	14:20-14:40 OS19-4 Flow-through Experiments on Interaction of Granite Fracture with Several Permeants <i>A. Hafidz , N. Kinoshita, H. Yasuhara</i>	14:05-14:20 OS9-11 Validity of Multivariate Normality Assumption for Data Augmentation on Artery Centerlines <i>K. Jin , K. Kitamura, N. Mori, S. Mugikura, M. Ohta, H. Anzai</i>			
				14:20-14:35 OS9-12 Prediction of Fractional Flow Reserve Based on Reduced-Order Cardiovascular Model <i>Y. Feng , Y. Liu</i>			
14:40	BREAK						14:40
14:50	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	Remo	14:50
	OS23: IFS Lyon Center Collaborative Research Forum + OS2:Combustion OS20:Liaison , OS24:C2C	GS: General Session Flow dynamics 2 <i>Chair: H. Nakamura</i>	OS19: Fluid Flow Experiment in Geoscience <i>Chair: T. Ishibashi</i>	GS: General Session Heat Transfer <i>Chair: Y. Kanda</i>	OS15: Turbulence: from Fundamentals to Applications LES & Atmospheric Flow <i>Chair: T. Ishihara</i>	OS22: IFS Collaborative Research Forum (AFI-2022)	
	14:50-15:10 OS23-1 Ferromagnetic-based Actuation for Electrical Protection <i>M. Lallart , G. Sebald, H. Miki</i>	14:50-15:10 GS1-9 Numerical Study on Aerodynamic Characteristics of Base Shape for Vertical Landing Rocket <i>R. Tanaka , N. Fujimatsu</i>	14:50-15:10 OS19-5 CO ₂ Injection-Induced Shearing and Complex Fracturing in Naturally Fractured Geothermal Environment <i>E. Pramudyo , R. Goto, K. Sakaguchi, K. Nakamura, N. Watanabe</i>	14:50-15:10 GS1-18 Thermal Convection of Poiseuille Flow in a Fluid Overlying an Anisotropic and Highly Porous Domain <i>Anjali , P. Bera</i>	14:50-15:10 OS15-11 Application of a High Order LES Turbulence Model on Investigating the Effect of Vortex Generators on Film Cooling Effectiveness <i>D. Biswas , T. Jimbo</i>	Free Discussion 4 CRF-62 to 80 (Remo)	
	15:10-15:30 OS23-2 Magnetization Mechanisms for the Non-Destructive Evaluation of Ferromagnetic Steel <i>B. Ducharne , S. Zhang, S. Takeda, G. Sebald, T. Uchimoto</i>	15:10-15:30 GS1-10 A Study of Surface Pressure Variation Induced by Planar Shock Wave Impinging on a Circular Cylinder from Various Angles <i>S. Takahashi , S. Tamakuma, T. Ikami, H. Nagai</i>	15:10-15:30 OS19-6 Effect of Brittleness Index on Hydro-Mechanical Behavior of Soft Rocks during CO ₂ Injection <i>T. Fujii , Y. Oikawa, X. Lei, M. Sorai</i>	15:10-15:30 GS1-19 Experimental Investigation of a Loop Heat Pipe in Multiple Orientations with two Different Evaporator Designs <i>S. Somers-Neal , H. Nagano</i>	15:10-15:30 OS15-12 Atmospheric Surface Layer Flows over a Dense City <i>L. Yao , C.-H. Liu</i>		
	15:30-15:50 OS23-3 Comparison of Ultrasonic Attenuation by Different Pitches on Periodic Rough Surface <i>K. Terada , H. Nakamoto, P. Guy, T. Uchimoto</i>	15:30-15:50 GS1-11 Study on Visualization Method for Axisymmetric Shock Reflection in Supersonic Flow <i>Y. Higa , Y. Watanabe, ,T. Handa, M. Matsunaga, C. Fujio, H. Ogawa, K. Ohtani</i>	15:30-15:50 OS19-7 Monitoring Flow Behavior of Supercritical CO ₂ in Porous Sandstones with Different Permeability by P-wave Velocity <i>H. Honda , H. Yagi, Y. Mitani</i>	15:30-15:50 GS1-20 Design Study of Loop Heat Pipe for kW-class Heat Transfer Applications <i>X. Chang , T. Tada, H. Nagai</i>	15:30-15:50 OS15-13 Morphological Effect on the Wake Flows after a Single Fractal Tree using Large-Eddy Simulation <i>S. Liu , C.-H. Liu</i>		
	15:50-16:10 OS23-4 Role of Charge Carriers in the Bending of Dielectric Elastomers <i>G. Coativy , K. Yuse, G. Diquet, V. Perrin, L. Seveyrat, F. Dalmas, S. Livi, J. Courbon, H. Takana, J. Y. Cavaill</i>	15:50-16:10 GS1-12 Shock-Bubble Interaction in Boiling Droplets <i>P. Guida , W. L. Roberts</i>		15:50-16:10 GS1-21 Experimental Verification of Loop Heat Pipe for High Heat Flux (Effects of Vapor Groove Geometry and Micro-Groove Processing) <i>Y. Shimada , Y. Nakatsugawa, A. Ueno, H. Nagano</i>	15:50-16:10 OS15-14 Amplitude Modulation of Velocity Fluctuations based on Atmospheric Flows over Real Urban Morphology <i>Y. Liu , C.-H. Liu</i>		

16:20	BREAK						16:20
16:30	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	Remo	16:30
	OS23:IFS Lyon Center Collaborative Research Forum + OS2:Combustion OS20:Liaison, OS24:C2C	GS: General Session Flow dynamics 3 Chair: K. Shimoyama	IFS Virtual Tour	GS: General Session Energy and combustion Chair: K.D.K.A. Somarathne	OS15: Turbulence: from Fundamentals to Applications Droplet & Heat Transfer Chair: Y. Hattori		
	16:30-16:50 OS23-5 Coupled Computing of Fluid-Structure Interaction Problems for Multiphase Energy Systems <i>J. Ishimoto , T. Elguedj</i> 16:50-17:10 OS23-6 Heat Exchange in Caloric Regenerators: from CFD Preliminary Analysis to Cooling Applications <i>G. Lombardi , G. Sebald, A. Komiya, S. X. Wway, G. Coativy, J. Jay</i> 17:10-17:30 OS23-7 Evolution of the Polymer Particle Thermal History During Cold Spray Process <i>C. Bernard , H. Takana, G. Diquet, O. Lame, K. Ogawa, J.-Y. Cavaillé</i> 17:30-17:50 OS23-8 Modal Approach for Extracting Flow Structure Related to the Subsonic Jet Noise Generation <i>S. Morita , A. Yakeno, C. Bogey, S. Obayashi</i> 17:50-18:10 OS23-9 Transition of Atmospheric Shear Flow Investigated by Sensitivity Analysis <i>R. Yoshimura , A. Yakeno, B. Pier, F. Alizard, S. Obayashi</i>	16:30-16:50 GS1-13 Optimization in Autonomous Underwater Vehicle (AUV) Group Formation by Computational Model <i>G. Li , D. Kolomenskiy, L. Duan, R. Godoy-Diana, B. Thiria</i> 16:50-17:10 GS1-14 POD Analysis of Front Wheelhouse Wake by Onboard PIV Measurement <i>N. Kuratani , T. Kawamura, K. Ambo, N. Fortunato</i> 17:10-17:30 GS1-15 One-way FSI Analysis of Industrial Gas Turbine Compressor under Start-up Condition <i>H. Miyazawa , T. Furusawa, S. Yamamoto</i> GS1-16 Cancelled 17:30-17:50 GS1-17 Impact on the Heat Transfer and Flow Behavior of Fin Geometry in a Rectangular Channel <i>M. Gürdal , H. K. Pazarhoğlu, K. Arslan</i>	17:00- IFS Virtual Tour	16:30-16:50 GS1-22 Optimization of a Concentrating Photovoltaic Thermal System (CPVT) by Considering Design and Operating Parameters <i>A. Ustaoglu , B. Kursuncu, J. Okajima, V. Akgül</i> 16:50-17:10 GS1-23 Experimental Evaluation of Concentrating Photovoltaic Thermal System (CPVT) for Different Reflectance Characteristics <i>A. Ustaoglu , H. Buyukpatpat, H. Kaya, J. Okajima, B. Kursuncu</i> 17:10-17:30 GS1-24 Effect of Ammonia Enriched Gaseous Co-flow On Soot Formation In Droplet Combustion <i>A. Kumar , S. Yang</i>	16:30-16:50 OS15-15 Analysis Of Lagrangian Droplet Dynamics Using Computational Singular Perturbation <i>L. Angelill , P. Paolo Ciottoli, E. Hernández-Pérez, M. Valorani, H. G. Im</i> 16:50-17:10 OS15-16 Heat Transfer Performance of Punched Holes on Fin Surface for the Flat Tube Bank Heat Exchanger <i>H. K. Pazarlioğlu, A. Ü. Tepe , K. Arslan</i> 17:10-17:30 OS15-17 Optimization of Influencing Parameters on Thermal Efficiency of Solar Air Heater with Elongated Impinging Jets and Dimpled Fin <i>E. Çalar, K. Arslan , H. K. Pazarlioğlu, A. Ü. Tepe</i>		
18:00							18:00

OS21: The 18th International Students / Young Birds Seminar on Multi-scale Flow Dynamics

- OS21-1: **Semi-Active Energy Harvesting with Magnetostrictive Transducer from Structural Vibration**
K. Goto, A. Li, Y. Hara, K. Otsuka, H. Kurita, F. Narita, P. Lohmuller, P. Laheurte, K. Makihara
- OS21-2: **Study on Coil Shape in a Method of Producing Ultra-Thin Metal Plates with Electromagnetic Pressure**
T. Machida, S. Kobayashi, K. Masuda, N. Ono
- OS21-3: **Prototype System for Three-Dimensional Visualization of a Rotating Liquid Flow during Wafer Drying**
K. Sonoda, K. Nishimura, H. Nakagami, A. Sakai, T. Ishibashi, N. Ono
- OS21-4: **Three-Dimensional Observation of a Liquid Flow on the Effect of Gas Spraying Positions during Wafer Drying**
K. Nishimura, K. Sonoda, H. Nakagami, A. Sakai, T. Ishibashi, N. Ono
- OS21-5: **Evaluation of the Heat Transfer Performance of Working Fluid in Elastocaloric Cooling Devices**
S. X. Way, G. Lombardi, G. Sebald, Y. Kanda, A. Komiya
- OS21-6: **Cartesian-mesh CFD for Heat Flux Prediction of a Symmetric Wedge in Supersonic Flow**
K. Abe, D. Sasaki, S. Takahashi, G. Yamada
- OS21-7: **Analysis of Cross-linking Reaction Process of Network Polymers by Molecular Dynamics Simulation and Quantum Chemical Calculation**
Y. Xi, H. Fukuzawa, G. Kikugawa, N. Kishimoto
- OS21-8: **Effects of Air Plasma Configuration on Thruster Performance**
M. Harada, H. Moriai
- OS21-9: Cancelled
- OS21-10: **Heat Transfer Mechanisms for Spatially Uniform Cooling of Continuous Heating Elements**
M. Yamamoto, Y. Kanda, A. Komiya
- OS21-11: **Time-Dependent Heat Flux around Contact Line of Evaporating Drops on Hydrophobic Surfaces**
K. Taguchi, T. Miyagawa, M. Shirota, T. Okabe
- OS21-12: **Data-Driven Thermal Analysis for Spacecraft Systems — Evaluation of Temperature Estimation by Physics-Informed Neural Networks—**
H. Tanaka, H. Nagai

- OS21-13: **Numerical Analysis of Oscillating Heat Pipe with Dynamic Liquid Film Model**
A. Kawaguchi, K. Sone, K. Matsubara, H. Nagai
- OS21-14: **Experimental Study on Operating Characteristics of Gravity-Assisted Cryogenic Loop Heat Pipe**
T. Yokouchi, X. Chang, K. Odagiri, H. Ogawa, H. Nagano, H. Nagai
- OS21-15: **Experimental Study on Thermal Performance of CFRP-embedded Oscillating Heat Pipe**
K. Matsubara, K. Sone, H. Nagai
- OS21-16: **Numerical Simulation of Coke in a Uniaxial Compression Test at High Temperature**
T. Higo, S. Kudo, J. Hayashi, Y. Saito
- OS21-17: **Measurement and Prediction of Defect Free Region Formed on Impact Surface of Molten Metal Drops**
Y. Nakagawa, T. Okawa, K. Maeda, T. Okabe, M. Shirota
- OS21-18: **Numerical Study of Plasma Behavior in a Disk MHD Generator with Various Noble Gases**
T. M. S. Leung, K. Ork, Y. Okuno
- OS21-19: **Temperature Measurement of a Graphene Device by Raman Spectroscopy**
Y. Kumakura, T. Suganoa, K. Misaki, S. Kinameri, A. Sakurai
- OS21-20: **Effects of Dual-cavity Flameholder on Flow Field and Flame Structure in Supersonic Flows**
K. Norimatsu, S. Nishiura, T. Kudo, A. Hayakawa, H. Kobayashi
- OS21-21: **Laminar Burning Velocities and Markstein Lengths of Oxygen Enriched $\text{NH}_3/\text{O}_2/\text{N}_2$ and NH_3/O_2 Premixed Flames**
Y. Shen, K. Sakai, S. Colson, T. Kudo, A. Hayakawa, H. Kobayashi
- OS21-22: **Atomization and Combustion Characteristics of Airblast Atomizers Manufactured with a Metal 3D-printer**
E. Tanaka, Y. Imai, A. Shibasaki, T. Kudo, Y. Komatsu, M. Uchida, A. Hayakawa, H. Kobayashi
- OS21-23: **The Topological Characteristics of Bundles of Vortical Axes in The Vortical Region in an Isotropic Homogeneous Turbulence**
K. Hyoudou, K. Nakayama
- OS21-24: **Improvements of Vortex Generator for Transonic Buffet Suppression over Supercritical Airfoil**
Y. Tsukamoto, K. Kitamura
- OS21-25: **A Transition of Bundles of Vorticity Lines with Coalescence of Vortical Regions in a Homogeneous Isotropic Turbulence**
Y. Adachi, K. Nakayama

- OS21-26: **Visualization of Rotor Surface Flow in Hovering by cntTSP**
T. Ikami, R. Nishimura, H. Nagai
- OS21-27: **Investigation on Aircraft Turbulence Using Large Eddy and Flight Simulations**
P. Schittenhelm, R. Yoshimura, J. Ito, S. Obayashi
- OS21-28: **Stall Delay in Propeller Slipstream at Low Reynolds Number**
M. Okawa, R. Nishimura, T. Ikami, H. Nagai
- OS21-29: **Visualization of Coaxial Rotor at Low Reynolds Number Condition**
R. Nishimura, M. Okawa, T. Ikami, H. Nagai
- OS21-30: **Numerical Flow Analysis and PIV Measurement around Tandem Flapping Wings**
R. Tobisaka, W. Yamazaki, S. Takahashi
- OS21-31: **Numerical Study on Propeller Scale Effect on Flow Field around Blade**
Y. Furusawa, K. Kitamura, T. Ikami, M. Okawa, H. Nagai
- OS21-32: **Numerical Investigation of Liquid Film Thickness of Adiabatic Two-phase Flow in Microchannel**
D. Tsuneoka, J. Okajima
- OS21-33: **Downwash Profiles behind Delta Wing at Low Reynolds Number**
N. Takeda, S. Tanaka, M. Okamoto
- OS21-34: **Time Response of Anodized Aluminum Pressure-Sensitive Paint for Supersonic Phenomena**
S. Tamakuma, J. Abe, H. Nagai
- OS21-35: **Investigation of Flutter Velocity and Power Generation with Piezoelectric Film**
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