

	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	14:50
	OS24: IFS Collaborative Research Forum (AFI-2024)	OS2: The Second International Symposium on Integrated Flow Science II: Combustion Technology and Fundamentals NH3/H2/Sustainability Chair: N. I. Kim	OS7: Advances in Simulation Techniques for the Computational Aerosciences Chair: J. S. Park	OS3: The Second International Symposium on Integrated Flow Science IV: Advanced Semiconductor and Digital Transformation Chair: K. Endo	OS18: Flow measurements using PSP/TSP Technique Chair: C.-Y. Huang	OS12: Complex Thermofluid System Numerical Heat Transfer and Fluid Flow Chair: M.-C. Lo	OS10: Two-Phase Thermal Control Technology Chair: K. Odagiri	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 16th Edition Internal Ballistics Modeling Session Chair: L. Kamps	OS14: Innovations in Oncology Chair: N. Aznar	OS17: Supercritical Fluid Chair: Y. Hu	
	14:50-15:35 CRF-1 - CRF-25, CRF-32, CRF-42, CRF-72, CRF-76 Poster Presentation	14:50-15:08 OS2-29 Characterizing Fuel-NO Interaction in NH ₃ /DME Co-firing: Experimental and Kinetic Modeling Investigation <u>S. Liu</u> , Q. Zhang, X. Shi, J. Fang, Q. Fang, W. Li, Y. Li 15:08-15:26 OS2-30 An Efficient Optimization Method for Chemical Mechanisms with Deep Reinforcement Learning <u>H. Hu</u> , H. Zhang 15:26-15:44 OS2-31 Using CO Laser-Absorption Measurements To Assess C ₂ H ₄ Detailed Kinetics Mechanisms During Combustion: A Shock-Tube Study <u>O. Mathieu</u> , C. M. Grégoire, E. L. Petersen 15:44-16:02 OS2-32 The Flame Behaviors in Mesoscale Sudden-Expansion Tube at the Preliminary Stage after Ignition <u>T.-H. Chuang</u> , J.-H. Huang, S.-Y. Hsu 16:02-16:20 OS2-33 Combustion Properties of CO-O2 Mixtures Diluted with CO2 at Elevated Pressures and Temperatures <u>M. Kuznetsov</u> , E. Torres de Ritter, A. Vesper, A. Lelyakin, T. Jordan	14:50-15:10 OS7-11 Data-Driven Fluid-Structure Interaction Analysis for Vortex-Induced Vibration <u>C. Lee</u> , T. Yamazaki, F. D. Witherden, Y. Kawano, Y. Abe 15:10-15:30 OS7-12 Study of Thermal Management System for eVTOL <u>H. Nakayama</u> , D. Sasaki, Y. Inoue 15:30-15:50 OS7-13 Comparison of Genetic Algorithm and Reinforcement Learning in Airfoil Optimization <u>A. Yoshikawa</u> , N. Fujimatsu 15:50-16:10 OS7-14 Multi-Objective Optimization for Aircraft Wing Shapes Using Advanced Composite Materials <u>R. Kano</u> , Y. Abe, K. Ryuzono, T. Okabe	14:50-15:20 OS3-5 <i>Invited</i> Volume of Fluid Modeling of a Rotating Disk Edge Wetting with Backside Dispense <u>A. Ceschin</u> , M. Kihara, M. Sato, N. Belmiloud, K. Huet 15:20-15:35 OS3-6 Evaluation of the Germination Process of the Haworthia cooperi ver. TruncateUnder the Controllable Gas Plasma Radiation <u>A. Kanbara</u> , D. Ohori, N. Hayashi 15:35-15:50 OS3-7 Interface Design Concept of HfO ₂ /Si Gate Stack for Nanosheet MOSFETs <u>Y. Morita</u> , H. Ota, S. Migita 15:50-16:05 OS3-8 Effect of Oxygen Vacancies at the AZO/ZnO Interface on ReRAM Characteristics <u>K. Hamada</u> , T. Ohno, K. Minami, K. Endo	14:50-15:10 OS18-1 Development of Pressure-Sensitive Paint with Temperature Insensitivity <u>K.-T. Huang</u> , <u>H.-Z. Lin</u> , C.-Y. Huang 15:10-15:30 OS18-2 Pressure Distribution Measurement on NACA0012 Airfoil using Silica-based PSP in Low-Speed Flow <u>M. Okawa</u> , Y. Yamagishi, T. Ikami, K. Watanabe, H. Nagai 15:30-15:50 OS18-3 An Experimental Study on the Two-Dimensional Flow Field of a Transonic Backward-Facing Step Flow with Vortex Generators <u>C.-C. Wang</u> , C.-Y. Huang, K.-M. Chung 15:50-16:10 OS18-4 Effect of Titanium Dioxide Surface Treatment on Fast-Responding PSP Characteristics <u>Y. Egami</u> , N. Yoshii, K. Nagao	14:50-15:05 OS12-31 Rapid Thermal-Electrical Co-Simulation for Power Electronics System <u>C. C. Hsu</u> , <u>H. C. Tang</u> , F. M. Tu, H. Y. Hsu 15:05-15:20 OS12-32 Numerical Simulation Analysis of the Heat Transfer Performance of Screw Pipe of the Water-Cooled Divertor in a Nuclear Fusion Reactor <u>M. Faridafshin</u> , N. Yusa, S. Yoshioka 15:20-15:35 OS12-33 Numerical Investigation on R134a Flash Evaporation under Reduced Pressure <u>K.-C. Chang</u> , Y.-C. Lin 15:35-15:50 OS12-34 A Numerical Investigation of Conjugate Heat Transfer Phenomena within Annular Finned Tube Heat Exchangers <u>E.-H. Tseng</u> , H.-T. Chen, C.-G. Li 15:50-16:05 OS12-35 Numerical Study of Flow and Heat Transfer in Heat Sink Arrays with Varied Fin Geometries <u>Z.-L. Lin</u> , C.-G. Li 16:05-16:20 OS12-36 A Numerical Study of Geometry Effect on Pressure Drop Instability Using VOF Method <u>C. W. Lin</u> , <u>K. H. Sun</u> , S. S. Lo, H. Y. Hsu	14:50-15:10 OS10-4 Comparison of Porous Characteristics by Various Measurement Methods <u>M. Nishikawara</u> 15:10-15:30 OS10-5 Numerical Study of Oscillating Heat Pipes with Different Diameter Channel <u>A. Kawaguchi</u> , Y. Sasaoka, M. Ando, A. Okamoto, T. Ikami, H. Nagai 15:30-15:50 OS10-6 Parasitic Heating Effect on Operating Characteristics of CLHP <u>T. Yokouchi</u> , X. Chang, K. Odagiri, H. Ogawa, H. Nagano, H. Nagai 15:35-15:50 OS10-7 Observation of Fluid Dynamics Phenomena <u>Z. Guo</u> , Y. Hsia, K. Chang, C.-C. Chang, S.-S. Wei, J.-S. Wu, Z. P. Tan 15:50-16:05 OS10-8 Effect of Bubbling on the Single-Phase Performance for Immersion Heat Sink <u>Y.-S. Chao</u> , C.-C. Wang	14:50-15:05 OS4-12 Current Status on a New Time-Resolved Fuel Regression Measurement Applied to Cylindrical Hybrid Rocket Engine <u>K. Ozawa</u> , Y. Jinnouchi, K. Omiya, N. Tsuboi 15:05-15:20 OS4-13 High Fidelity Numerical Simulations of Ablating Boundary Layers for Hybrid Rocket Motors <u>K. Budzinski</u> , K. Retfalvi, E. K. Ismael, R. Zangeneh, <u>P. DesJardin</u> 15:20-15:35 OS4-14 Fundamental Experiments on Metalized Fuel Hybrid Rockets for Spacecraft with Microwave Repetitive Ignition <u>K. Nishii</u> , T. Kanda, A. Kakami 15:35-15:50 OS4-15 H ₂ O ₂ Droplet Ignition in a Deep-Pool of NaBH ₄ Hypergolic Fuel – Part 1: Observation of Fluid Dynamics Phenomena <u>Z. Guo</u> , Y. Hsia, K. Chang, C.-C. Chang, S.-S. Wei, J.-S. Wu, Z. P. Tan 15:50-16:05 OS4-16 H ₂ O ₂ Droplet Ignition in a Deep-Pool of NaBH ₄ Hypergolic Fuel – Part 2: Ignition Trends and Hypothesis of Mechanisms <u>Y. Hsia</u> , Z. Guo, K. Chang, C.-C. Chang, S.-S. Wei, J.-S. Wu, Z. P. Tan 16:05-16:20 OS4-17 Performance Evaluation of Ground Test Prototype of Thrust-O/F Control System for A-SOFT Hybrid Rocket <u>K. Kitagawa</u> , T. Siricharoensathaporn, K. Matsui	14:50-15:05 OS14-4 Patient-derived Tumour Organoids for the Identification of Tumour Cell-intrinsic and Tumour-immune Modulators <u>R. Wagner</u> , M. Brisset, M. Grandin, C. Shembrey, S. Lee, T. Vu, A. Heriot, A. Serrano, <u>F. Hollande</u> 15:05-15:20 OS14-5 Investigation of a Predictive Therapeutic Response under Controlled Oxygen Condition in Cancer Patient-derived Organoids <u>M. Roinard</u> , S. Aratake, K. Funamoto, N. Aznar, <u>J.-P. Rieu</u> 15:20-15:35 OS14-6 Co-Culture with Microvascular Networks Attenuates Cancer Cell Proliferation under Hypoxia <u>S. Aratake</u> , K. Funamoto 15:35-15:50 OS14-7 Role of Circulating snoRNA Snord in Breast Cancer Bone Metastatic Progression <u>C. Filossi</u> , <u>C. Moyret-Lalle</u> , M. Puppo, P. Clézardin, V. Marcel 15:50-16:05 OS14-8 Treatment of Metastatic Lymph Node by Lymphatic Drug Delivery System Using Carboplatin <u>E. Tada</u> , M. Miyatsu, A. Sukhbaatar, S. Mori, T. Sugiura, T. Kodama 16:05-16:20 OS14-9 Evaluation of Chemoinmunotherapy using Lymphatic Drug Delivery System <u>R. Suzuki</u> , A. Sukhbaatar, H. Fuji, S. Mori, Y. Ito, T. Kodama	14:50-15:10 OS17-4 Kinetics of Methanol/Ethanol Assisted Oxidation of Ammonia in Supercritical Water <u>S. Zhang</u> , J. Yang, <u>G. Li</u> 15:10-15:30 OS17-5 Rayleigh-Bénard Convection Onset of Supercritical CO ₂ inside a Closed Chamber: Experiments and Numerical Results <u>R. Zhang</u> , L. Chen, Y. Kanda, A. Komiya 15:30-15:50 OS17-6 Cancelled 15:50-16:10 OS17-7 Mass Transport Evaluation in Supercritical Fluids by Droplet Volume Change Measurement <u>Y. Kanda</u> , L. Chen, A. Komiya	
16:20											16:20
BREAK											
16:30	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	CON-1	CON-2	16:30
	OS24: IFS Collaborative Research Forum (AFI-2024)	OS2: The Second International Symposium on Integrated Flow Science II: Combustion Technology and Fundamentals NH3/H2/Sustainability Chair: O. Mathieu	OS7: Advances in Simulation Techniques for the Computational Aerosciences Chair: A. Yakeno	OS24: Fluid Science Research Award Lecturers Chair: K. Maruta	OS18: Flow measurements using PSP/TSP Technique Chair: Y. Egami		OS10: Two-Phase Thermal Control Technology Chair: H. Nagai	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 16th Edition Hybrid Rocket Propulsion Systems Session Chair: Y. Saito	OS14: Innovations in Oncology Chair: C. Moyret-Lalle		
	16:30-16:48 OS2-34 High-pressure Oxidation of Hydrogen at 100 Atm in a Supercritical-pressure Jet-stirred Reactor <u>H. Zhao</u> , C. Yan, G. Song, Z. Wang, A. W. Jasper, S. J. Klippenstein, Y. Ju	16:30-16:50 OS7-15 Uncertainty Quantification of Aerostructural Properties on Composite Wing Design <u>K. Nakamura</u> , Y. Abe, K. Shimoyama, S. Obayashi	16:30-17:00 FRA-1 Research on Solid Material Flammability in Microgravity for Fire Safety in Space <u>O. Fujita</u> 17:00-17:30 FRA-2 Struggling with the multiscale structures of bubbly flows <u>S. Takagi</u>	16:30-16:50 OS18-5 Investigation of Supersonic Micronozzle with Secondary Injection and Different Divergent Sections <u>Y.-E. Tsai</u> , Y.-J. Wu, <u>P.-H. Huang</u> , C.-Y. Huang		16:30-16:50 OS10-7 Observation of Acoustic Streaming in Wet Thermoacoustic Engines Using PIV <u>S.-H. Hsu</u> , <u>W.-T. Lin</u> 16:50-17:10 OS10-8 Effect of Bubbling on the Single-Phase Performance for Immersion Heat Sink <u>Y.-S. Chao</u> , C.-C. Wang	16:30-16:45 OS4-18 Tethered Hovering Flight Demonstration of the HTTP-4 Hybrid Rocket with Vertical Takeoff Vertical Landing (VTVL) Capability <u>S.-C. Wang</u> , Z.-R. Chen, C.-C. Chang, H.-Y. Tso, J.-C. Hsu, T.-C. Lee, Y.-T. Hou, S.-T. Kao, C.-H. Huang, Y.-C. Liang, J.-S. Shiang, J.-W. Huang, M.-T. Ho, S.-S. Wei, J.-S. Wu	16:30-17:10 OS14-10 <i>Invited</i> Microfluidic Systems for Cancer Modeling and Drug Screening <u>S. Kim</u> , J. Park, <u>J. S. Jeon</u>			

	16:48-17:06 OS2-35 Study for Global Reaction Mechanism for Cracked Ammonia Gas <i>H. M. Yang , N. I. Kim</i> 17:06-17:24 OS2-36 On the Flammability Limits of Radiative Stretched NH₃/H₂/Air Premixed Flames at Elevated Pressures <i>S. Xie, H. Zhang</i> 17:24-17:42 OS2-37 Premixing Effects of Cracked NH₃ and CH₄ on Flame Propagation and Length Scale Using a Radial-Stepwise-Gap-Burner (RSGB) <i>J. Han , N. I. Kim</i> 17:42-18:00 OS2-38 Flame Modelling of Premixed Ammonia Combustion in Swirl Burner using LES <i>Q. T. Le , V. B. Nguyen, S. Ma, B. S. Neo, A. Lim, C. W. Kang, H. Zhang</i>	16:50-17:10 OS7-16 Drag Polar Prediction of an Aircraft Using Inviscid and Various Viscous Models <i>Rashmikan , Y. Abe</i>	17:30-18:00 FRA-3 Advanced Flow Measurement and Control Based on Data Driven Mode Decomposition <i>T. Nonomura</i>	16:50-17:10 OS18-6 Visualization of the Laminar to Turbulent Transition Location Over Reusable Launch Vehicle Using Green Spectrum-Based Temperature-Sensitive Paint <i>K. S. Chandrasekaran , S. Mariappan, D. Das, A. Singh, S. R</i> 17:10-17:30 OS18-7 Bubble Formation Analysis of Boiling Two-Phase Flow of Magnetic Fluids Using Temperature-Sensitive Paint <i>Y.-C. Tan, Y.-J. Cheng , C.-Y. Huang</i>		16:45-17:00 OS4-19 Development the Shortened Tsua-Ing Hybrid Rocket Engine for the Asfaloth Supersonic Sounding Rocket <i>K.-H. Chang , H.-Y. Tso, C.-C. Chang, S.-C. Wang, J.-C. Hsu, Y.-X. Chang, M.-H. Wang, Y.-T. Chang, T.-Y. Lin, S.-S. Wei, Z. P. Tan, J.-S. Wu</i> 17:00-17:15 OS4-20 Development of Hypergolic Solid Fuel for Hybrid Rocket Ignition <i>H.-Y. Tso , K.-L. Chang, C.-C. Chang, T.-F. Lin, K.-H. Lee, Z.-P. Tan, S.-S. Wei, J.-S. Wu</i>	17:10-17:25 OS14-11 Pharmacokinetic Analysis in Lymphatic Drug Delivery System <i>R. Miyazaki , T. Shimano, A. Sukhbaatar, S. Mori, T. Kodama</i> 17:25-17:40 OS14-12 Microfluidic Assessment Reveals Cell Deformability As A Prognostic Factor For AML Treatment Sensitivity <i>C. M. Cardozol, L. Barral, S. Jeanpierre, M.-C. Audry-Deschamps, V. Maguer-Satta, M. Faivre, S. Lefort</i> 17:40-17:55 OS14-13 A Hydrogel Based Microsystem to Uncouple Mechanical and Chemical Gradients in Dense Tissues <i>G. Jardiné , A. Diallo, G. Simon, H. Delanoë-Ayari, C. Rivière, S. Monnier</i>		
18:00									18:00
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20:30	19:00- Banquet @ Hotel Metropolitan Sendai								20:30

9:00	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	9:00	
	OS24: IFS Collaborative Research Forum (AFI-2024) <i>Chair: Y. Kanda</i>	OS2: The Second International Symposium on Integrated Flow Science II: Combustion Technology and Fundamentals NH3/H2/Sustainability <i>Chair:Y. Li</i>	OS15: Turbulence: from Fundamentals to Applications wall turbulence <i>Chair: Y. Hattori</i>	OS7: Advances in Simulation Techniques for the Computational Aerosciences and OS25: IFS Lyon Center Collaborative Research Forum JOINT SESSION	OS18: Flow measurements using PSP/TSP Technique <i>Chair: H. Nagai</i>	OS9: Biomedical Flow Dynamics <i>Chairs: A. Qiao, C. Voniatis</i>	OS21: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: M. Nakano</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: T. Yamagata</i>		
	CRF-26 - CRF-51 except CRF-32 and CRF-42 Short Oral Presentation	9:00-9:18 OS2-39 Effect of Flame-wall Interaction on Flashback Propensity of Turbulent Premixed Hydrogen Flames <u>J. Park</u> , <u>D. Park</u> , <u>K. T. Kim</u> 9:18-9:36 OS2-40 Combustion Analysis of a Gas Turbine Combustor with Methane/Hydrogen Blended Fuels <u>C.-H. Tsai</u> , <u>H.-Y. Shih</u> 9:36-9:54 OS2-41 Reconstruction of Velocity and Pressure Field of Reactive Circular Jet Flow using Physics-informed Neural Network <u>R. Waluyo</u> , <u>M. Aziz</u> 9:54-10:12 OS2-42 Investigation on a Preheated Ammonia/Air Stagnation Flame on a Heated Metal Surface <u>K. Kanayama</u> , <u>M. Izumi</u> , <u>T. Tezuka</u> , <u>G. Miyamoto</u> , <u>H. Nakamura</u> 10:12-10:30 OS2-43 Experimental and Numerical Investigation of the Effects of an Uncontrolled Primary Zone Dilution on Liquid Ammonia Spray Combustion <u>E. C. Okafor</u> , <u>O. Kurata</u> , <u>H. Yamashita</u> , <u>N. Iki</u> , <u>T. Inoue</u> , <u>H. Jo</u> , <u>M. Shimura</u> , <u>T. Tsujimura</u> , <u>A. Hayakawa</u> , <u>H. Kobayashi</u>	9:00-9:20 OS15-1 Turbulent Channel Flow Response to Wavy Walls: a DNS Study <u>M. Brockhaus</u> , <u>A. Sescu</u> , <u>L. Chamorro</u> 9:20-9:40 OS15-2 Determination of Reynolds Number at which Two Types of Large-scale Structures Alternate in Turbulent Channel Flow using Two-point Velocity Correlation. <u>R. Sasaki</u> , <u>R. Takai</u> , <u>K. Kato</u> , <u>M. Matsubara</u> 9:40-10:00 OS15-3 Determination of Scales of the Large-Scale Structures in Sub-Critical Turbulent Channel Flow <u>R. Takai</u> , <u>K. Takahara</u> , <u>K. Sato</u> , <u>S. Yimprasert</u> , <u>K. Kato</u> , <u>M. Matsubara</u> 10:00-10:20 OS15-4 On the Breakdown of Görtler Vortices into Fully-Turbulent Boundary Layer Flows <u>M. Brockhaus</u> , <u>A. Sescu</u> , <u>O. Es-Sahli</u> , <u>Y. Hattori</u> 10:20-10:40 OS15-5 Scale of Disturbance Structures around The Second Peak of Velocity Fluctuations in a Turbulent Boundary Layer at very High Reynolds Numbers <u>M. Shimizu</u> , <u>R. Kaji</u> , <u>I. Watanabe</u> , <u>K. Matsui</u> , <u>S. Hara</u> , <u>K. Kato</u> , <u>Y. Naka</u> , <u>A. Inasawa</u> , <u>M. Matsubara</u>	9:10-9:50 OS7-17 / OS25-1 <i>Invited</i> Numerical Methods for Solving Multimode Giesekus Viscoelastic Fluid Flows <u>S. Xin</u> , <u>S. Abdollahzadeh</u> , <u>R. Knikker</u> , <u>D. Signer</u> , <u>M. Botaous</u> 9:50-10:10 OS25-2 Identification of Dominant Modes of Flow Between Rotatingl Conical Cones by Linear Stability and DMD Analyses <u>H. Yata</u> , <u>K. Akinaga</u> , <u>A. Komiya</u> , <u>T. Adachi</u> 10:10-10:30 OS25-3 Coupled Computing of Fluid-Structure Interaction Problems for Multiphase Energy Systems <u>J. Ishimoto</u> , <u>T. Elguedj</u>	9:00-9:40 OS18-8 <i>Invited</i> Fast Response Inorganic TSP Using a Ball Milling <u>S. Someya</u> , <u>S. Saito</u> , <u>S. Baba</u> , <u>N. Takada</u> 9:40-10:00 OS18-9 Development of Silica-based PSP for Unsteady Pressure Distribution Measurements in Low-Speed Flow <u>Y. Yamagishi</u> , <u>M. Okawa</u> , <u>T. Ikami</u> , <u>K. Watanabe</u> , <u>H. Nagai</u> 10:00-10:20 OS18-10 Evaluation of Pressure Sensitive Paint using PTFE powder and Ru(dpp) ₃ <u>Y. Azeyanagi</u> , <u>N. Fujimatsu</u>	9:00-9:30 OS9-1 <i>Invited</i> Composite Electrospun Scaffolds for Biomedical Applications <u>A. Jedlovszky-Hajdu</u> , <u>V. Pálos</u> , <u>S. Halmóczki</u> , <u>C. Voniatis</u> , <u>H. Saifurrahman</u> , <u>M. Ohta</u> , 9:30-9:45 OS9-2 Simulation of Thrombosis Induced by Various Degrees of Stent Malapposition <u>H. Zhang</u> , <u>Z. Qu</u> , <u>S. Chen</u> , <u>A. Qiao</u> , <u>Q. Hou</u> , <u>H. Song</u> , <u>W. Fu</u> , <u>H. Anzai</u> , <u>M. Ohta</u> 9:45-10:00 OS9-3 Development of Electrospun Nanocomposites <u>S. Halmóczki</u> , <u>V. Rizmajer</u> , <u>K. Osán</u> , <u>A. Jedlovszky-Hajdú</u> , <u>C. Voniatis</u> , <u>V. T. Pálos</u> , <u>M. Ohta</u> , <u>H. Saifurrahman</u> 10:00-10:15 OS9-4 Dynamics of Osteoarthritic Synovial Fluid <u>D. Acevedo</u> , <u>D. Grecov</u> , <u>E. Corvera Poiré</u>	9:00-9:30 OS21-1 <i>Invited</i> Advanced Applications of Flexible Soft Materials in Impact Protection: Shape Memory Semi-active Safeguarding and Triboelectric Nanogenerator Smart Sensing <u>X. Gong</u> , <u>W. Wang</u> 9:30-10:00 OS21-2 <i>Invited</i> The Vibration Bandgaps in Linkage Magnetorheological Elastomer Acoustic Metamaterial <u>Z. Chen</u> , <u>G. Jing</u> , <u>W. Li</u> 10:00-10:30 OS21-3 <i>Invited</i> Thermomechanical Properties of Natural Rubber: Application to Refrigeration <u>G. Sebald</u> , <u>A. Komiya</u> , <u>M. Sion</u> , <u>S. Xin</u> , <u>G. Coativy</u>	9:00-9:15 OS13-1 Investigation of Heat Transfer Enhancement in Pool Condition under High-Frequency and Low-Frequency Ultrasonic Vibration <u>C.-C. Hung</u> , <u>P.-H. Hsu</u> , <u>Y.-T. Su</u> , <u>Y.-H. Lin</u> , <u>S.-W. Chen</u> , <u>H.-J. Lee</u> 9:15-9:30 OS13-2 Supervised Learning Applied to Flow Regime Identification of Two-Phase Flow in a Forced-Vibration Rectangular Tube <u>H.-J. Lee</u> , <u>H.-Y. Chen</u> , <u>S.-W. Chen</u> , <u>C.-C. Hung</u> , <u>Y.-H. Lin</u> 9:30-9:45 OS13-3 Unsupervised Learning Applied to Flow Regime Identification of Gas-Liquid Two-Phase Flow in Vertical Narrow Rectangular Tube <u>Y.-H. Lin</u> , <u>C.-C. Hung</u> , <u>H.-J. Lee</u> , <u>S.-W. Chen</u> 9:45-10:00 OS13-4 Large Eddy Simulations of Transonic Diffuser Flows <u>M. Okajima</u> , <u>T. Yamashita</u> , <u>S. Nakao</u> , <u>Y. Miyazato</u> 10:00-10:15 OS13-5 Quantitative Flow Visualization of Shock-Dominated Flows by MZI <u>T. Yamashita</u> , <u>M. Okajima</u> , <u>S. Nakao</u> , <u>Y. Miyazato</u> 10:15-10:30 OS13-6 Three-Dimensional Structure of a High-Aspect-Ratio Elliptic Underexpanded Sonic Jet <u>T. Sakashita</u> , <u>T. Nagata</u> , <u>S. Nakao</u> , <u>Y. Miyazato</u>		
10:30	BREAK								10:30	
10:40	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	10:40	
	OS24: IFS Collaborative Research Forum (AFI-2024) <i>Chair: Y. Morii</i>	OS2: The Second International Symposium on Integrated Flow Science II: Combustion Technology and Fundamentals NH3/H2/Sustainability <i>Chair:H. Zhang</i>	OS15: Turbulence: from Fundamentals to Applications turbulent shear flow <i>Chair: Y. Hattori</i>	OS25: IFS Lyon Center Collaborative Research Forum	OS18: Flow measurements using PSP/TSP Technique <i>Chair: Y. Matsuda</i>	OS9: Biomedical Flow Dynamics <i>Chairs: H. Anzai, M.S.S. Hashuro</i>	OS21: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: W. Li</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: K. Funamoto</i>		
	CRF-52 - CRF-77 except CRF-72 and CRF-76 Short Oral Presentation	10:40-10:58 OS2-44 Numerical Investigation on The Design of Swirl Burner For NH3/CH4/Air Combustion <u>J.-Y. Lu</u> , <u>S.-Y. Hsu</u> , <u>C.-H. Tsai</u> , <u>K.-C. Lin</u> , <u>W.-X. Lin</u> , <u>C.-C. Chen</u>	10:50-11:10 OS15-6 An Attempt at Linear Response Extraction Method to Elucidate the Leading Edge Receptivity to Free Stream Disturbances <u>K. Taira</u> , <u>A. Yoshida</u> , <u>K. Kato</u> , <u>M. Matsubara</u>	10:40-11:00 OS25-4 Coarse-grained Lattice Simulations for Turing Patterns on Membranes <u>E. Bretin</u> , <u>C. Carvalho</u> , <u>R. Denis</u> , <u>F. Kato</u> , <u>H. Koibuchi</u> , <u>S. Masnou</u> , <u>M. Nakayama</u> , <u>S. Tasaki</u> , <u>T. Uchimoto</u>	10:40-11:00 OS18-11 Post Processing Method for Pressure-Sensitive-Paint Data Using Machine Learning <u>R. Kokubo</u> , <u>M. Takagi</u> , <u>T. Ikami</u> , <u>Y. Egami</u> , <u>H. Nagai</u> , <u>Y. Matsuda</u>	10:40-11:10 OS9-5 <i>Invited</i> Evaluation of Vascular Function Focusing on Luminal Surface Topography <u>M. Kobayashi</u> , <u>Y. Hashimoto</u> , <u>A. Kishida</u> , <u>T. Kimura</u> , <u>K. Murata</u> , <u>H. Masumoto</u> , <u>H. Anzai</u> , <u>Z. Wang</u> , <u>M. Ohta</u> , <u>M. Yamamoto</u>	10:40-11:10 OS21-4 <i>Invited</i> Electro-Rheological Behavior of Suspensions Based on Titanium Dioxide Nano-Particles in Various Types of Modified Silicone Oil <u>K. Tanaka</u> , <u>X. Lin</u> , <u>S. Yonezumi</u> , <u>M. Kawaguchi</u> , <u>H. Kobayashi</u> , <u>M. Nakano</u>	10:40-10:55 OS13-7 Investigation of Number of Blades with a Focus on Enhancing Cross-flow Turbine Manufacturing <u>S. Takeshima</u> , <u>K. Suzuno</u> , <u>G. Katagiri</u> , <u>T. Arai</u> , <u>S. Iio</u> , <u>T. Uchiyama</u> , <u>K. Takamure</u>		

	10:58-11:16 OS2-45 Stabilization and NOx of Non-Premixed Flames of Cracked NH₃ + H₂ with a Fuel-Tube Depth in a Coaxial Air <i>P. S. Kim</i> , <i>D. S. Jeon</i>, <i>N. I. Kim</i> 11:16-11:34 OS2-46 Effects of Flame Cooling on Gas and Liquid Ammonia Spray Combustion using a Swirling Burner <i>G. Reibel</i> , <i>Y.-R. Chen</i>, <i>K. Oku</i>, <i>H. Yamashita</i>, <i>A. Hayakawa</i>, <i>T. Kudo</i>, <i>H. Kobayashi</i> 11:34-11:52 OS2-47 Measurements and Numerical Simulations of Axial Fuel-Air Staged Ammonia-Hydrogen Combustion <i>J. Lee</i> , <i>U. Jin</i>, <i>K. T. Kim</i> 11:52-12:10 OS2-48 Combustion Analysis of Gas Turbine Combustor with Methane/Ammonia Blended Fuels <i>W.-J. Chen</i> , <i>H.-Y. Shih</i> 12:10-12:28 OS2-55 Dynamics-Informed Stiffness Reduction for Reactive Simulations of Ammonia-Hydrogen Blends <i>M. Y. Baykan</i> , <i>V. Vijayarangan</i>, <i>D.-H. Shin</i>, <i>H. G. Im</i>	11:10-11:30 OS15-7 Experimental Study on the Effect of Microbubbles on Turbulent Structure in Pipe Flow <i>X. Wu</i> , <i>T. Masuda</i>, <i>Y. Hamana</i>, <i>Y. Tsuji</i> 11:30-11:50 OS15-8 The Modulating Effect of Coherent Structures on Inter-scale Energy Transfer in Turbulent Mixing Layer <i>M. Wang</i> , <i>Y. Ito</i>, <i>Y. Sakai</i> 11:50-12:10 OS15-9 Flutter Boundary Behaviors and Airfoil Thickness Effects in Transonic Flow Regimes <i>S. Selland</i> , <i>T. Miyake</i>, <i>H. Terashima</i>	11:00-11:20 OS25-5 Analysis of Frequency Spectrum of Ultrasonic Pulse-Echo Wave Reflected on Periodic Rough Surface <i>K. Fujii</i> , <i>H. Nakamoto</i>, <i>P. Guy</i>, <i>T. Uchimoto</i> 11:20-11:40 OS25-6 Enhancement of Protein Mass Transfer using Ultrasound Induced Flow and Macro-pore Membrane <i>A. Komiya</i> , <i>R. Zhu</i>, <i>V. Botton</i>, <i>S. Miralles</i> 11:40-12:00 OS25-7 Active yet Precise Control of Protein Mass Transfer by Membranes <i>A. Komiya</i> , <i>J. F. Torres</i>, <i>R. Zhu</i>, <i>S. Livi</i>	11:00-11:20 OS18-12 Experimental Study of Unsteady Flow around Oscillating Airfoil using cntTSP <i>G. Y. Lim</i> , <i>T. Ikami</i>, <i>H. Nagai</i> 11:20-11:40 OS18-13 Unsteady Pressure Distribution Measurement of Hayabusa Capsule at Transonic Speeds <i>R. Hosaka</i> , <i>D. Yamashita</i>, <i>T. Ikami</i>, <i>Y. Egami</i>, <i>H. Nagai</i> 11:40-12:00 OS18-14 Investigation on Leading Edge Vortex on Low Reynolds Number Rotor Blade by cntTSP Visualization <i>T. Ikami</i> , <i>R. Nishimura</i>, <i>H. Nagai</i>	11:10-11:25 OS9-6 Fabrication of Composite Nanofibrous Covers for Coronary Stents <i>C. Voniatis</i> , <i>A. Jedlovsky-Hajdu</i> 11:25-11:40 OS9-7 Polysuccinimide-Salt Electrospun Scaffold as a Potential Wound Dressing Material <i>V. Pálos</i> , <i>S. Halmóczki</i>, <i>C. Voniatis</i>, <i>H. Saifurrahman</i>, <i>M. Ohta</i>, <i>A. Jedlovsky-Hajdu</i> 11:40-11:55 OS9-8 Structural Modification of Catheter-Type Tactile Sensor Using Polyvinylidene Fluoride (PVDF) Film <i>S. Nagano</i> , <i>K. Takashima</i>, <i>M. Watanabe</i>, <i>K. Ishida</i>	11:10-11:30 OS21-5 Size-dependent Magnetomechanically Enhanced Photothermal Antibacterial Efficacy in Fe₃O₄@Au/polydopamine Magnetic Fluid <i>Y. Xu</i> , <i>K. Wang</i>, <i>S. Xuan</i>, <i>X. Gong</i> 11:30-11:50 OS21-6 A Smart Shear Thickening Fluid (STF)-based Warning-protection Sponge towards Sensing Performance and Impact Resistance with Excellent Flame Retardant <i>Y. Pan</i> , <i>M. Sang</i>, <i>X. Gong</i> 11:50-12:10 OS21-7 Superior Yarns-Based Fabrics with Satisfied Mechanical and Thermal Properties towards Safeguarding <i>H. Chen</i> , <i>M. Sang</i>, <i>X. Gong</i>	10:55-11:10 OS13-8 Relationship between Performance of Propeller Turbine and Blade Solidity <i>F. Miura</i> , <i>T. Sei</i>, <i>S. Hashimoto</i>, <i>S. Iio</i>, <i>T. Uchiyama</i> 11:10-11:25 OS13-9 Effect of Guide Vane on the Performance of Waterfall Cross-Flow Hydro Turbines <i>K. Moriya</i> , <i>T. Yamagata</i>, <i>N. Fujisawa</i> 11:25-11:40 OS13-10 Dynamic Response of Three-Dimensional Transient Flow in a Centrifugal Fan Using Dynamic Mode Decomposition with Control <i>S. Maruyama</i> , <i>I. Kambayashi</i>, <i>A. Kiyama</i>, <i>D. Kang</i> 11:40-11:55 OS13-11 Flow Characteristics of Charged Particles in a Swirling Flow Under the Influence of an Electric Field in a Circular Pipe <i>T. Haruki</i> , <i>K. Yoshimi</i>, <i>T. Yagi</i>, <i>H. Amano</i>, <i>Y. Iwatani</i>, <i>T. Uchiyama</i>, <i>K. Takamure</i> 11:55-12:10 OS13-12 Experimental Study on Passive Control of Supersonic Jet Noise <i>S. Togoshi</i> , <i>S. Nakao</i>, <i>Y. Miyazato</i>		
12:10	Luncheon Session CRF-26 - CRF-77, except CRF-32, CRF-42, CRF-72, CRF-76 Poster Presentation	BREAK						12:10	
13:00	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	13:00
	OS22: Liaison Office Session	OS15: Turbulence: from Fundamentals to Applications bluff body <i>Chair: M. Matsubara</i>					Ceremony Commemorating the 10th Anniversary of the Installation of the 1-m Magnetic Suspension and Balance System at the Institute of Fluid Science, Tohoku University	OS13: Flow Realization, Measurement and Visualization <i>Chair: S. Iio</i>	
	13:00- History of Liaison office session <i>Makoto Ohta</i> (IFS) 13:05- Global Strategy of Tohoku University as an International Research Excellence <i>Prof. Toshiya Ueki</i> (Executive Vice President for General Affairs, International Affairs, and Academic Resources of Tohoku University) 13:20- My academic journey of 10+ years in Boston <i>Prof. Jessie S Jeon</i> (KAIST) 13:35- Overseas Research Case Reports: 6 months in Taiwan <i>Kazuki Sone</i> (PhD student, Funamoto Lab., IFS)	13:10-13:30 OS15-10 Numerical Study on the Influence of Aerodynamic Effects on High-Rise Pantograph at Different Working Heights <i>A. Dwivedi</i>, <i>N. Oshima</i>, <i>Y. Cho</i>, <i>S. Kim</i> 13:30-13:50 OS15-11 Mechanisms of Aerodynamic Forces with Varying Aspect Ratio of Rectangular Cylinder <i>N. Yoshida</i> , <i>H. Asada</i>, <i>S. Kawai</i> 13:50-14:10 OS15-12 Aerodynamic Heat Dissipation and Aerodynamic Performance Simulation for FSAE Racing Car <i>G. Zhai</i> , <i>X. Fu</i>, <i>C. Lai</i>					13:00-13:10 Opening Remarks 13:10-13:25 Commemorative Video Screening 13:25-13:55 Guest Speeches 13:55-14:00 Closing Remarks	13:10-13:25 OS13-13 Experimental Study of Ninja-Star Underexpanded Sonic Jets <i>R. Uchida</i> , <i>S. Nakao</i>, <i>Y. Miyazato</i> 13:25-13:40 OS13-14 Fundamental Study on Effective Positions of a Feedback Force in Measurement-integrated simulation for Flow around a Circular Cylinder <i>K. Hirose</i> , <i>S. Miyauchi</i> 13:40-13:55 OS13-15 Visualization of The Wake Behind a NACA Blade with Truncated Rear End <i>S. Tsukamoto</i> , <i>K. Takamure</i>, <i>T. Uchiyama</i>	

14:40	13:45- Overseas Research Case Reports: 3 months in Lyon <i>Taisei Takagi</i> (Master student, Komiya Lab., IFS)	14:10-14:30 OS15-13 Design and Parametric Analysis of Propeller Boss Cap Fins with Hull Interaction Effects: A CFD-based Study <i>G. Rajaraman</i> , <i>P. Tomar</i> , <i>N. Kumbhakarna</i>					13:55-14:10 OS13-16 Effect of Deflector Angles on Drag of Ahmed Body <i>D. V. Pham</i> , <i>T. H. Tran</i> , <i>G. Sharma</i> , <i>J. Tanimoto</i>	
	13:55- Joint research and education initiatives at IFS through network of liaison offices and joint laboratories <i>Tetsuya Uchimoto</i> (IFS)	14:30-14:50 OS15-14 Reynolds Number Effect on Drag Reduction of Axisymmetric Boattail Models with Longitudinal Groove Cavitation <i>Q. D. Nguyen</i> , <i>T. H. Tran</i> , <i>D. T. Nguyen</i> , <i>G. Sharma</i> , <i>J. Tanimoto</i>					14:10-14:25 OS13-17 Experimental Study on Flow Visualization Technique in Low Aspect Ratio Thin Wing at Critical Reynolds Numbers <i>Y.-C. Liu</i>	
	14:05- A liaison office: the first step towards lasting collaboration?: 20th anniversary, and HYCOMBS with the TU-CNRS-CREATE <i>Prof. Jean-Yves Cavaille</i> (CGO of IFS)						14:25-14:40 OS13-18 Flow Structures of Unsteady Supersonic Free Jets from a Round Laval Nozzle <i>H. Ueno</i> , <i>R. Fukuda</i> , <i>S. Nakao</i> , <i>Y. Miyazato</i>	
	14:20- Hydrogen and Ammonia Combustion R&D in Singapore: Introduction of HYCOMBS (and LCER) <i>Prof. Huangwei Zhang</i> (NUS)							
	14:35- Research and Development on Large Scale Renewable Ammonia Production in Saudi Arabia <i>Prof. Mani Sarathy</i> (KAUST)							
	14:50- Closing							
BREAK								
14:50	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B
	OS24: IFS Collaborative Research Forum (AFI-2024)	OS26: JSPS Core to Core program workshop <i>Chair: A. Hayakawa</i>	OS15: Turbulence: from Fundamentals to Applications fundamental & environmental <i>Chair: T. Ishihara</i>	OS25: IFS Lyon Center Collaborative Research Forum	GS: General Session <i>Chair: Y. Kanda</i>	OS9: Biomedical Flow Dynamics <i>Chairs: M. Zhang, T. Nakayama</i>	OS21: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: X. Gong</i>	OS13: Flow Realization, Measurement and Visualization <i>Chair: S. Funatani</i>
	15:00-15:25 OS26-1 <i>Invited</i> Towards Clean and Efficient Ammonia Combustion for Gas Turbine Applications <i>Yuyang Li</i> (Shanghai Jiao Tong University, China)	15:00-15:20 OS15-15 Non-Equilibrium Turbulence Effects in Dynamos and Convections <i>N. Yokoi</i>	14:50-15:10 OS25-8 Investigation of Electric Field Induced Bending of Doped Epoxy-amine Elastomers with Ionic Liquids <i>D. Djoumoi</i> , <i>L. Seveyrat</i> , <i>V. Perrin</i> , <i>F. Dalmas</i> , <i>S. Livi</i> , <i>J. Courbon</i> , <i>H. Takana</i> , <i>J.-Y. Cavaillé</i> , <i>G. Coativy</i>	14:50-15:05 GS1-11 Effects of Phase Differences Between Oscillating Foil and Periodic Flow on Thrust and Lift Coefficients <i>M. Sagawa</i> , <i>Y. Isoda</i> , <i>Y. Tanaka</i>	14:50-15:05 OS9-9 Cancelled	15:00-15:30 OS21-8 <i>Invited</i> Visco-Elasto-Plastic Behaviour of Magnetorheological Elastomers under Shear Loading <i>K. Danas</i> , <i>G. Sebald</i> , <i>M. Nakano</i>	14:50-15:05 OS13-19 Influence of a Low-Pass Filtered Reconstructed Volume on the Measurement Accuracy of Holographic Particle Tracking Velocimetry <i>Y. Tanaka</i> , <i>M. Ishiyama</i> , <i>D. Nakai</i>	
	15:25-15:50 OS26-2 <i>Invited</i> Development of Low Carbon Ammonia-fuel Combustor for Power Generation <i>Sophie Colson</i> (IHI Corporation, Japan), <i>Shintaro Ito</i> , <i>Masahiro Uchida</i> , <i>Takamasa Ito</i>	15:20-15:40 OS15-16 Experimental Comparison of Turbulent Statistics in Superfluid ⁴ He Coflow and Counterflow <i>T. Hirayama</i> , <i>Y. Tsuji</i>	15:10-15:30 OS25-9 Parametric Study of Ion Flow Through Polymer Strip Submitted to a High Voltage <i>J. Courbon</i> , <i>H. Takana</i> , <i>G. Coativy</i> , <i>J.-Y. Cavaillé</i>	15:05-15:20 GS1-12 Flow Separation Control over Cetacean-inspired and Bird/Insect Wing-inspired Airfoils DU 06 W 200 <i>A. Xavier Andrade</i> , <i>O. Ali Zargar</i> , <i>S.-C. Hu</i> , <i>T. Lin</i>	15:05-15:20 OS9-10 Hemodynamic Effects on Aneurysm Endovascular Coil Porosity <i>N. S. b. Shafii</i> , <i>R. Yamaguchi</i> , <i>K. Osman</i> , <i>M. I. Kori</i> , <i>A. Z. M. Khudzari</i> , <i>M. Ohta</i>	15:30-16:00 OS21-9 <i>Invited</i> Rheological Properties of MR Elastomers under Normal Compression <i>T. Tian</i> , <i>P. Milosevski</i> , <i>M. Nakano</i>	15:05-15:20 OS13-20 Velocity Reconstruction of Three-dimensional Velocity Field Measured by Stereo PIV using Helmholtz Decomposition <i>A. Saito</i> , <i>Y. Tanaka</i>	
	15:50-16:15 OS26-3 <i>Invited</i> Ammonia in Marine Transport: Research Insights and Future Directions <i>Moez Ben Houidi</i> (King Abdullah University of Science and Technology (KAUST), Saudi Arabia), <i>Fahad Almatrafi</i> , <i>Hao Wu</i> , <i>William L. Roberts</i>	15:40-16:00 OS15-17 Investigation of the Turbulent Wake and Emission Dispersion Behind a Heavy-Duty Lorry with Proper Orthogonal Decomposition <i>M. Qiu</i> , <i>Y. Liu</i> , <i>Y. Hou</i> , <i>C.-H. Liu</i>	15:30-15:50 OS25-10 Bending Strength of Density Gradient Designed Silicon Carbide Plate by the Direct Ink Writing <i>H. Kurita</i> , <i>T. Kudo</i> , <i>T. Kanno</i> , <i>Z. Wang</i> , <i>F. Narita</i>	15:20-15:35 GS1-13 Flow Separation Control over Shark Skin-inspired and Hybrid Blade Airfoils DU 06 W 200 <i>O. Ali Zargar</i> , <i>A. X. Andrade</i> , <i>S.-C. Hu</i> , <i>T. Lin</i>	15:35-15:50 OS9-12 Microfluidic Liquid Dispenser: Effects of Boundary Condition on Single Droplet Formation <i>P. D. W. Prasetya</i> , <i>Suprijanto</i> , <i>T. S. Wibowo</i> , <i>M. Ohta</i> , <i>H. Anzai</i> , <i>N. K. Putra</i>	16:00-16:20 OS21-10 Development of a Rotary Fluid Inerter with Variable Damping Characteristics <i>W. Xie</i> , <i>L. Deng</i> , <i>W. Li</i>	15:20-15:35 OS13-21 High-frequency Ultrasound Imaging Analysis of Intravascular Flow Dynamics in Metastatic Lymph Nodes <i>K. Maeda</i> , <i>D. Kuramoto</i> , <i>Y. Okada</i> , <i>R. Miyazaki</i> , <i>M. Omura</i> , <i>A. Sukhbaatar</i> , <i>S. Mori</i> , <i>T. Kodama</i>	
		16:00-16:20 OS15-18 Intermittency Analysis of the Turbulence over Idealized Urban Areas Based on Empirical Mode Decomposition <i>R. Wang</i> , <i>C.-H. Liu</i>	15:50-16:10 OS25-11 Ultrasound Study of Hydrolytic Ageing of Polymers <i>S. Boucaud-Gauchet</i> , <i>J. Caritey</i> , <i>G. Jusserand</i> , <i>T. Devaux</i> , <i>S. Livi</i> , <i>F. Vander Meulen</i> , <i>T. Uchimoto</i> , <i>N. Mary</i>	15:35-15:50 GS1-14 Investigation of Ultrasonic-Driven Pulsating Supersonic Jet for High-Speed Flow Control <i>K. Adachi</i> , <i>H. Furukawa</i> , <i>K. Furutani</i> , <i>T. Handa</i>	15:50-16:05 OS9-13 Numerical Simulations in 3D Airway Models for Respiratory Droplet Generations Using DPM-EWF <i>N. Kobayashi</i> , <i>M. Ohta</i> , <i>H. Anzai</i>		15:35-15:50 OS13-22 Relationship Between Impact Forces and Erosion Initiation in Pulsed Jet Tests on Erosion of Wind Turbine Blades <i>G. Ikarashi</i> , <i>H. Furukawa</i> , <i>T. Yamagata</i> , <i>N. Fujisawa</i> , <i>K. Fujisawa</i> , <i>M. Tanaka</i>	

				15:50-16:05 GS1-15 Flow Dynamics of Oscillatory Flow Across a Porous Structure: An Overview <i>F. A. Z. Mohd Saat , M. I. Fahmy Rosley, F. Shikh Anuar</i>			15:50-16:05 OS13-23 Numerical Analysis of Rain-induced Erosion in Wind Turbine Blades <i>K. Fujisawa , T. Yamagata, N. Fujisawa, M. Tanaka</i> 16:05-16:20 OS13-24 Experimental Study of Transient Shock Wave Behavior in a Transonic Diffuser <i>H. Kodama , S. Nakao, Y. Miyazato</i>		
16:20	BREAK							16:20	
16:30	EX-Hall-1A	EX-Hall-1B	EX-1	EX-2	EX-3-A	EX-3-B	EX-4-A	EX-4-B	16:30
		OS2: The Second International Symposium on Integrated Flow Science II: Combustion Technology and Fundamentals NH3/H2/Sustainability <i>Chair:H. Nakamura</i>	OS15: Turbulence: from Fundamentals to Applications fundamental & environmental <i>Chair: T. Ishihara</i>	OS25: IFS Lyon Center Collaborative Research Forum	GS: General Session <i>Chair: T. Ikami</i>	OS9: Biomedical Flow Dynamics <i>Chairs: Y. Li, J. Liao</i>	OS21: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: G. Sebald</i>		
	16:30-16:48 OS2-49 Experimental and Chemical Kinetic Study of NO Addition Effect on Methane Oxidation Using Weak Flames in Micro-Flow Reactor with a Controlled Temperature Profile <i>A. S. Singh , K. Tamaoki, Y. Murakami, K. Kanayama, T. Tezuka, H. Nakamura</i> 16:48-17:06 OS2-50 An Extension of Localized Thickened Flame Approach for Premixed Flames under Stretching Effects <i>T. Cui , H. Terashima, S. Kawai</i> 17:06-17:24 OS2-51 Kinetic Insights into Ammonia-hydrogen Doped Ignition and Emission Assisted by Nanosecond Pulsed Discharge <i>M. Zhang , Q. Chen, N. Liu, W. Qin, Y. Fu</i> 17:24-17:42 OS2-52 High-Pressure Turbulent Burning Velocities of Stoichiometric (55%NH ₃ +45%H ₂)/Air Spherical Flames in Near-Isotropic Turbulence <i>V. T. Mai , W.-C. Shen, H.-Y. Hsieh, S. Shy</i> 17:42-18:00 OS2-53 Species Measurements for NH ₃ /CH ₄ Mixtures at Intermediate Temperatures Using a Micro Flow Reactor with a Controlled Temperature Profile <i>Y. Ishida , K. Tamaoki, K. Kanayama, T. Tezuka, H. Nakamura</i>	16:40-17:00 OS15-20 Transport Efficiency of Different Positions over Idealized Urban Areas by Empirical Mode Decomposition <i>Y. Hou , K. Zhou, C.-H. Liu</i> 17:00-17:20 OS15-21 Analysis of Trailing Edge Noise from a Flat Plate and Effect of Finlets on the Noise using Direct Numerical Simulation <i>N. Hirao , M. Hirota, Y. Hattori</i> 17:20-17:40 OS15-22 The Mechanism of Aeroacoustic Noise Generation in Jet-Wing Interaction under the Wing-in-Ground Effect <i>L. Tan , Y. Hattori</i> 17:40-18:00 OS15-23 Investigation of Orthogonal Modes in High-speed Axisymmetric Jet Turbulence: Instantaneous vs. Statistical Data <i>S. Arabi , M. Z. A. Koshuriyan, A. Sescu</i>	16:20-16:40 OS25-12 Monitoring Eukaryotic Cell Functions under Various Hypoxic Conditions with Microfluidic Based Oxygenators <i>N. Ghazi, N. Kawahara, S. Hirose, S. Yanagita, K. Funamoto, C. Anjard, J.-P. Rieu</i> 16:40-17:00 OS25-13 Investigation of a Predictive Therapeutic Response Under Controlled Oxygen Condition in Cancer Patient-Derived Organoids <i>S. Aratake, M. Roinard, Z. Su, J.-P. Rieu, K. Funamoto, N. Aznar</i> 17:00-17:20 OS25-14 Super-Resolution Reconstruction of Microdefects on Metal Spherical Surfaces using Eddy Current Pulsed Thermography <i>L. Guo , L. He, Z. Tong, S. Xie, Z. Chen, T. Uchimoto, T. Takagi</i> 17:20-17:40 OS25-15 Analysis of the Drift Velocity Variation of Carbon in Steel under Electric Field <i>R. Onozuka , P. Chantrenne, T. Tokumasu</i> 17:40-18:00 OS25-16 Damage due to Water Jet Impacts on ZnS <i>P. Gantier, D. Nélias , N. Boisson, T. Chaise, C. Mauger, P. Dumont, P. Junique</i>	16:30-16:45 GS1-16 Wake Structure Interactions in a Channel Flow of Shear-thinning Fluids around Porous Cylinders <i>S. Jamshed , N. Tiwari, A. Dhiman</i> 16:45-17:00 GS1-17 Dynamics of an Inverted Flag in an Oscillatory Flow <i>J. Zhang , T. Nakamura</i> 17:00-17:15 GS1-18 Experimental Study on Active Control of Subsonic Compressible Boundary-Layer Flow Using High-Frequency Flapping Jet <i>K. Ikeuchi , A. Urita, T. Handa</i> 17:15-17:30 GS1-19 Analysis of the Atomization Process in a Swirl Injector Using VOF to Lagrangian Method <i>K.-L. Li , C.-C. Tseng, P.-Y. Tsai</i> 17:30-17:45 GS1-20 Computational Studies for Air Intake and Plasma Generation Process in Air-breathing Electric Propulsion System <i>K. Ito , M. Takahashi</i>	16:30-16:45 OS9-14 Numerical Modeling of Histotripsy Induced by High-Intensity Focused Ultrasounds <i>P. Guida, W. L. Roberts</i> 16:45-17:00 OS9-15 Validation of Fluid-Structure Interaction Analysis Using Particle Image Velocimetry in a Cerebral Aneurysm <i>S. Sato , G. Tanaka, M. Ohta, R. Yamaguchi</i> 17:00-17:15 OS9-16 A Computational Fluid Dynamics-based Framework for Slip-Resistance Performance of Progressively Worn Common Outsole Designs: Implications on Slips and Falls <i>S. Gupta , A. Chanda</i> 17:15-17:30 OS9-17 CFD Study on Relationship between Occurrence of Portal Vein Thrombosis and Wall Shear Stress after Hepatectomy <i>S. Nakajima , Y. Iijima, M. Takada, I. Hosokawa, M. Otsuka, G. Tanaka</i>	16:30-17:00 OS21-11 <i>Invited</i> Development and Implementation of MR Fluid Shaft Coupling for Driving Axial Pump <i>M. Nakano , O. Taguchi, K. Sugiyama, Y. Watanabe</i> 17:00-17:20 OS21-12 Effects of Arbitrary Particle Morphology on Dynamic Performance of Magnetorheological Fluids <i>K. Wang , B. Liu, Y. Xu, H. Deng, X. Gong</i> 17:20-17:40 OS21-13 Design, Modelling, and Experimental Evaluation of a Variable Inertance Bypass Fluid Inerter <i>K. T. Tran , L. Deng, W. Li</i>			
18:00								18:00	

OS23: The 20th International Students / Young Birds Seminar on Multi-scale Flow Dynamics

- OS23-1: **Numerical Simulation of Triple Thermal Plasma Process for Synthesizing Silicon/Carbon Composite**
S.-B. Yang, Y. H. Lee, J.-H. Oh, S. Choi
- OS23-2: **Thermal Plasma Synthesis of Boron Nitride Nanotubes Using a Reactant Gas of Ammonia**
S. Kim, Y. H. Lee, J.-H. Oh, S. Choi
- OS23-3: **Synthesis of Graphene Nanoflakes by Methane Pyrolysis in Thermal Plasma**
G. Yang, S. Kim, S. Yang, H. Ko, Y. H. Lee, J.-H. Oh, S. Choi
- OS23-4: **A Study on Droplet Breakup Behavior and its Electrical Characteristics**
Y. Kurihara, R. Jin, M. Daikoku, T. Miyagawa, T. Okabe, M. Shiota, Y. Matsukawa, H. Aoki, Y. Saito, J. Fukuno
- OS23-5: **Thermal Emission Measurement in a Micro-Area of Two-Dimensional Materials**
H. Tanaka, T. Kishi, K. Misaki, I. Bisignano, S. Ishii, A. Sakurai
- OS23-6: **Unsteadiness in a 2D Transonic Cavity Flow with a Deep Sub-cavity and Deployment of a Passive Control Technique**
C. Mallavarapu, H. Ogawa, S. K. Karthick
- OS23-7: **Semi-Active Vibration Control Combining Various Disturbance Periods and Predictive Scheme**
K. Mishima, X. Li, T. Tang, M. Zhou, Y. Hara, K. Makihara
- OS23-8: **Dynamic Analysis Method for High-Aspect-Ratio Wings Using Curvature Modes**
Y. Shizuno, S. Dong, R. Kuzuno, T. Okada
- OS23-9: **Buffeting-Induced Vibration Energy Harvesting using Flexible Plates with Piezoelectric Film**
K. Shimura, M. Ishigami, Y. Jia, Y. Shi, C. Soutis, H. Kurita, F. Narita, Y. Hara, K. Makihara, K. Otsuka
- OS23-10: **Conceptual Study on an Flying Wing Type Micro-sized Mars Airplane with Canard**
R. Kimura, M. Okawa, T. Ikami, H. Nagai
- OS23-11: **Uncertainty Quantification of Spacecraft Thermal Analysis Using Transient Surrogate Model**
D. Yamashita, T. Ikami, H. Nagai
- OS23-12: **Effect of Liquid Properties on Attitude of Flake Particles in a Drop Impacting using DEM-VOF Simulations**
N. Hashiguchi, T. Miyagawa, T. Okabe, M. Shiota, Y. Matsukawa, H. Aoki, M. Daikoku, J. Fukuno, Y. Saito

- OS23-13: **Thermal Load Estimation Using Machine Learning**
A. Okuyama, R. Kato, S. Eguchi, Y. Hara, K. Makihara, K. Otsuka
- OS23-14: **Experimental Study on Heat Transport Characteristics of Single-Turn Pulsating Heat Pipe with Straight Channel**
K. Saito, T. Nozawa, M. Miura
- OS23-15: **Liquid Film Formed with Liquid Column Oscillation in Capillary Tube**
I. Ito, Y. Ahara, H. Kikuchi, Y. Hitomi, M. Miura, H. Ito
- OS23-16: **Heat Transport Characteristics of Pulsating Heat Pipes with Various Flow Path Shapes**
T. Sasagawa, R. Akiyama, M. Miura
- OS23-17: **Performance Improvement of Gas Separator with Micro-Network Structure and Prototyping of the Device with a 3D printer**
R. Masuo, M. Osada, S. Nakanishi, M. Yamazaki, N. Ono
- OS23-18: **Visualization of Surface and Internal Flows in Liquid Layer during Coating Material Processing**
K. Akase, R. Yabe, N. Ono
- OS23-19: **Prototype Study of Particle Separator with 3D Printed Microstructures Utilizing Thermophoresis**
M. Osada, R. Masuo, S. Nakanishi, M. Yamazaki, N. Ono
- OS23-20: **Temperature Evaluation of Autonomous Spectral Switching Coatings under Solar Irradiation**
T. Takahashi, H. Tomori, H. Gonome
- OS23-21: **Insight into Latent Heat and Melting of Sugar Alcohol Phase Change Materials: A Molecular Dynamics Study**
S. Cheng, D. Surblys, T. Ohara
- OS23-22: **Correlation between Deformation Behavior of Filament Wound CFRP and Eddy Current Testing Signals**
K. Nakajima, T. Uchimoto, H. Kosukegawa, T. Takagi, S. Takeda, T. Watanabe, Y. Tsuchiyama
- OS23-23: **Clustering Method of Species Characteristics for Simplified Reaction Model of Methane**
K. Igusa, H. Nakamura
- OS23-24: **Improvement of Solar Absorption Performance by Plasmonic Pickering Emulsions**
Y. Koizumi, S. Hirashima, T. Kimura, M. Ono, Y. Nonomura, A. Masuhara, H. Gonome
- OS23-25: **Thermal Photonics Power Generation System Based on Perovskite Materials**
K. Ono, S. Ito, R. Sugimoto, A. Sakurai

- OS23-26: **Effect of Pre-strain on Unsteady Characteristics of Flexible-membrane Wing at Low Reynolds Number**
H. Kurahashi, T. Ikami, H. Nagai
- OS23-27: **Uncertainty Quantification in Compressible Flow Fields with Different Initial Conditions**
N. Gima, S. Morizawa
- OS23-28: **Design and Development of 7 kW Solar Simulator for Solar Thermal Applications**
A.Z. Rizal, M. Kambayashi, K. Matsubara, T. Kodama, S. Bellan
- OS23-29: **Fluid-Structure Interaction Analysis of Flexible-membrane Wing at Low Reynolds Number**
K. Funada, H. Osaki, Y. Chikamoto, D. Sasaki, Y. Kawamoto, S. Takahashi, K. Fujita, H. Kurahashi, M. Okawa, T. Ikami, H. Nagai
- OS23-30: **Basic Research on Dye-Painted AA-PSP Using Bathophenanthroline Ruthenium Chloride as the Pressure-Sensitive Dye**
H. Takata, Y. Kawamata, T. Kawashima, D. Numata
- OS23-31: **Effect of Anodized Aluminum Layer Thickness on the Characteristics of Sulfuric Acid Type Dye-Painted AA-PSP**
K. Yoneyama, Y. Kawamata, T. Kawashima, D. Numata
- OS23-32: **Experimental Investigation of Optimized Arrangements of HEPA Air Purifiers in Indoor Ventilation**
H. Takaku, W. Yamazaki, H. Takahashi
- OS23-33: **Advanced Optical Design for PIV Measurements on Curved Surfaces**
R. Mise, T. Ikami, H. Nagai
- OS23-34: **Influence of Unsteadiness of Cavitating Flow on the Thermodynamic Self-Suppression Effect**
G. Nakamura, Y. Iga
- OS23-35: **Numerical Simulation for Non-Newtonian Liquid Jet Breakup in a Gas Cross-flow with an Electric Field**
S. Nakashima, K. Hayashi, M. Shiota, S. Iwata, Y. Mawatari, M. Yamamura, Y. Saito
- OS23-36: **Effect of Atomization Characteristics of Two-fluid Nozzle on Radiative Heat Transfer in Fire Accident**
M. Jono, T. Kogawa, K. Kawai, W. Xing, S. Moriya, J. Okajima, H. Gonome
- OS23-37: **Towards to Extrapolation Prediction of Fluid Phenomena Using Physics-Informed Neural Networks (PINNs)**
S. Nakama, S. Morizawa
- OS23-38: **Research on Installing Protuberance on a Flat Plate at Low Reynolds Numbers**
H. Osaki, D. Sasaki, Y. Kawamoto, M. Okamoto

- OS23-39: **Towards Efficient Unsteady Aerodynamic Optimization of a Thin Angular Airfoil at Low Reynolds Number**
Y. Chikamoto, D. Sasaki, Y. Kawamoto
- OS23-40: **Development of Temperature Sensitive Paint for Cryogenic Fluid Visualization**
S. Okuyama, T. Yokouchi, T. Ikami, H. Nagai
- OS23-41: **Research on Advanced Aerodynamic Topology Optimization for Supersonic Airfoil**
Y. Inagaki, W. Yamazaki
- OS23-42: **Airfoil Design Using Optimal Design Technology Integrating Experimental and Numerical Analysis Data**
S. Fujisaki, A.U. Batsukh, W. Yamazaki
- OS23-43: **Dependence of the Probe Volume Direction in LITGS in Non-reacting Flow with Temperature Distribution**
H. Kondo, S. Hasegawa, K. Norimatsu, T. Kudo, A. Hayakawa
- OS23-44: **Influence of Notch in Inducer Blade on Cavitation Instabilities for Rocket Turbopump**
T. Yoshino, N. Ishikawa, A. Kowata, S. Kawasaki, Y. Iga
- OS23-45: **Numerical Simulation of Gas-Liquid Two-Phase Flow and Liquid Film Formation on a Rotating Disk with a Narrow Gap**
K. Kurosawa, M. Shimagaki, J. Okajima
- OS23-46: **Passage Characteristics of Bundle of Vortical Axis Lines in Homogeneous Isotropic Turbulence**
K. Uchima, K. Nakayama
- OS23-47: **Evaluation of Martensitic Transformation and Surface Microcracks of Hydrogen-Charged Austenitic Stainless Steels Using Eddy Current Testing**
Y. Kure, T. Uchimoto, S. Ajito, M. Koyama, E. Akiyama, S. Takeda
- OS23-48: **Effect of Anodized Aluminum Layer Thickness on the Characteristics of Phosphoric Acid Type Dye-Painted AA-PSP**
T. Kawashima, D. Numata
- OS23-49: **Development of Background Oriented Schlieren Measurement Technique for Cylindrical Combustion Flow**
Y. Hirayama, M. Kido, Y. Yabiku, S. Ogawa
- OS23-50: **Temperature Measurement in a Micro-Area of Two-Dimensional Materials by Raman Spectroscopy**
T. Hasegawa, T. Sugano, A. Sakurai
- OS23-51: **Experimental Study on Temperature Depression inside Cavitation in a Nozzle Flow**
R. Suzuki, J. Okajima

- OS23-52: **Effect of Painting Parameters on the Characteristics of Dye-Painted AA-PSP Aimed at Visualizing Unsteady Shock Wave Phenomena**
Y. Kawamata, D. Numata
- OS23-53: **Fabrication of PC-PSP Using Bathophenanthroline Ruthenium Chloride as the Pressure-Sensitive Dye**
T. Takizawa, D. Numata
- OS23-54: **Study on the Basic Characteristics of Supersonic Airfoil for Mars Airplane**
T. Ninomiya, K. Shibata, T. Takizawa, D. Numata
- OS23-55: **Evaluation of the Impact of Ablation Power and Heating Time Combinations on the Depth of Heat Penetration in Biological Tissue**
T. Tani, S. Xin, M. Ono, A. Komiya
- OS23-56: **Evaluation of the Effect of Local Periodic Thermal Perturbations on Convective Heat Transfer Enhancement in a Vertically Heated Plate**
T. Takagi, T. Koizumi, T. Kogawa, A. Komiya
- OS23-57: **Assessment of New Chemical-Kinetic Parameters in Two-Temperature Kinetic Model Using an Open-Source CFD Software Eilmer4**
J. Wu, M. Ahn Furudate
- OS23-58: **Investigating the Thermomechanical Properties of Phosphorus-Enhanced Flame-Retardant Epoxy Resins Through Reactive DPD/MD Simulations**
K. Li, A. Ito, G. Kikugawa
- OS23-59: **Numerical Simulation on Bubble Growth and Wall Heat Transfer During Saturated Flow Boiling of Water in Microchannel**
Y. Lyu, J. Okajima
- OS23-60: **Simulation of Adhesion and Fracture at the Interface between Thermosets and Metals using Quantum Chemical and Molecular Dynamics Calculations**
H. Xue, Y. Xi, N. Kishimoto, G. Kikugawa, K. Li, T. Ishiyama
- OS23-61: **Physical Property Measurement of Liquids Using an Event-Based Camera Falling with a Drop**
T. Kishi, T. Kosugi, R. Yamamoto, T. Miyagawa, M. Shiota
- OS23-62: **Numerical and Experimental Study of Ice Particle Melting During Drop Impact onto a Heated Surface**
H. Echigo, Y. Kimura, J. Okajima, T. Okabe
- OS23-63: **Evaluation of Thermoelectric Effect on EMFs at a Water-Graphene Interface**
N. Iwamoto, T. Okada, A. Komiya
- OS23-64: **Study on the Amount of Heat Loss in the Cooling System Using Elastocaloric Effects**
S. Ishii, G. Sebald, S. Moriya, A. Komiya

**OS24: The 24th International Symposium on Advanced Fluid Information
(AFI-2024)
IFS Collaborative Research Forum**

- CRF-1: **Plan to Study the Surface Flow of a Small Rotor Blade with a Vortex Generator**
H. Otsuka, H. Sasaki, H. Tokutake, T. Ikami, H. Nagai, H. Osaki, D. Sasaki, Y. Kawamoto
- CRF-2: **Smoke-Visualized Wake of Quadrotor in Ground Effect**
H. Otsuka, Y. Kobayashi, S. Akaba, H. Tokutake, M. Okawa, T. Ikami, H. Nagai
- CRF-3: **Conceptual Study on a Conventional Micro-sized Mars Airplane with Stowable and Deployable Membrane Wings**
S. Kudo, T. Takagi, H. Kono, T. Masaki, S. Oshima, M. Kanazaki, T. Ikami, H. Nagai
- CRF-4: **Measurement of Three-Dimensional Density Field around Hayabusa Capsule Model Using Monochrome Random Dot Pattern at Two Different Moments**
M. Yamagishi, S. Nogi, N. Kosaka, M. Ota, T. Inage, Y. Takikawa, K. Ohtani, H. Nagai
- CRF-5: **Numerical Simulation for High-speed and Low-temperature Plasma Flows in a Space Transport System**
M. Takahashi, S. Suzuki, H. Suzuki, K. Ito, H. Nagai
- CRF-6: **Whole Field Prediction from Sparse Sensors Using Neural Networks**
M. Takagi, T. Ikami, Y. Egami, H. Nagai, T. Kashikawa, K. Kimura, Y. Matsuda
- CRF-7: **A Study on the Flow Characteristics near the Surface of Highly Acoustically Transparent Porous Materials**
N. Takeda, T. Kusano, O. Terashima, H. Nagai, Y. Konishi, T. Ikami, T. Komatsuzaki
- CRF-8: **The Behavior of Local Geometries of Shock Wave Surfaces Propagating in Turbulent Flow**
A. Kusuha, K. Tanaka, T. Watanabe, K. Nagata, Y. Ito, Y. Hattori
- CRF-9: **An Analysis of Self-Organization of Three Dimensional Turbulent Vortical Structure Derived from Interaction between Vortical Flow and Bundle of Vorticity Lines**
K. Nakayama, K. Uchima, K. Sakurai, Y. Hattori
- CRF-10: **Thermometry of Oxygen Enriched Methane Flames using Near-infrared Emissions from Water Molecules**
K. Hirose, F. Ren, K. Omi, K. Nakayama, K. Uchida, S. Nakaya, H. Kondo, S. Hasegawa, T. Kudo, A. Hayakawa, M. Tsue
- CRF-11: **Real-Fluid properties Using the Virial Equation of State Based on the Boltzmann-weighted Full-dimensional Potential**
X. Zhang, H. Nakamura, H. Zhao

- CRF-12: **Feasibility Study of Ammonia Fueled Commercial Aircraft**
T. Wada, K. Iijima, D. Shimokuri, A. Hayakawa, H. Nakamura, Y. Fujimoto, S. Obayashi
- CRF-13: **Evaluation of Optimal Hydrogen-Ammonia Mixtures for Solid Oxide Fuel Cells**
C. Wilhelm, K. Tamaoki, H. Nakamura, J. Ahn
- CRF-14: **An Experimental and Kinetic Modeling Study for Autoignition Times of TMPI and TEPI Flame Retardants**
F. N. O. Bruce, Z. Zhu, K. Kanayama, H. Nakamura, Y. Li
- CRF-15: **Analysis of Thermophysical Properties of Phase-Change Material Based Metal-Organic Frameworks Using Molecular Dynamics Simulation as a Reviewing Approach**
M. R. Prakoso, N. Y. Rodjali, T. Tokumasu
- CRF-16: **Investigation of the Passivation Mechanism of TiO₂/Si Heterostructure by Molecular Dynamics Simulation**
Y. Michishita, S. Fukaya, N. Uene, K. Gotoh, T. Tokumasu, N. Usami
- CRF-17: **Evaluation of Stability of Magnesium Oxide Deposited on Silicon Surface**
S. Kaneko, M. Kurouchi, M. Yasui, D. Shiojiri, M. Mitsuhashi, M. Yoshimura, R. Yu, S. Yasuhara, M. M. Can, S. K. Sahoo, I. Mariana, K. Sardar, T. Tokumasu
- CRF-18: **Characterization of Particulate Morphology Generated from Lithium-Ion Battery Combustion Processes**
S. L. Manzello, S. Suzuki, K. Maruta
- CRF-19: **PECT Signal Processing Algorithm for Better Thickness Quantification of Ferromagnetic Material**
S. Xie, S. Yang, L. Guo, G. Lu, Z. Chen, T. Uchimoto, T. Takagi
- CRF-20: **Research on the Antibacterial Effect of Ag⁺ and Cu-Containing Carbon Films Using the Self-Exudation Effect of Contained Metal Components**
M. Goto, S. Takeda, H. Miki, K. Ito, T. Uchimoto
- CRF-21: **Exploring the Effects of Shear Stress Magnitude and Variation on Endothelial Injury: From Current Evidence to In Vitro Experiment of Cellular Responses**
M. Zhang, H. Saifurrahman, Z. Wang, H. Anzai, M. Ohta
- CRF-22: **Interaction between Aortic Stiffness and Carotid Arterial Stiffness: Computational Simulations Using a Realistic Arterial Model**
Y. Li, M. Petrova, C. S. McLachlan, M. Ohta
- CRF-23: **Computational Hemodynamics in Intracranial Aneurysms: Unveiling Insights into Hemodynamic Complexity**
M. Albadawi, R. Yamaguchi, K. M. Saqr, M. Ohta

- CRF-24: **Development of Transcranial Doppler-Computed Tomography Fusion Imaging System Based on Sensors, Artificial Intelligence, and Phantom**
E. Kristianti, I. Rostiana, N. R. Marali, M. F. Syukra, M. S. S. Hashuro, M. Ohta
- CRF-25: **Numerical Simulation of the Effect of Viscosity on the Directional Movement of Droplets on the Bioinspired Micro/Nanostructured Surfaces**
S. Chen, H. Zhang, B. Guo, T. Du, A. Qiao, H. Song, W. Fu, H. Anzai, M. Ohta
- CRF-26: **Effect of Atomization Characteristics of Two-Fluid Nozzle on Radiative Shielding of Mist for Heat Stroke Prevention against Thermal Radiation from the Ground Surface**
H. Gonome, M. Jono, K. Kawai, W. Xing, S. Moriya, J. Okajima, T. Kogawa
- CRF-27: **Pore-Scale Simulation of Mass Transfer during Supercritical Fluid Remediation for Soil Contaminants**
Y. Hu, Y. Xu, Y. Kanda, A. Komiya
- CRF-28: **Combined In situ & Ex situ, Multi-scale Stress Measurements in Crystalline Geothermal Reservoirs**
Y. Mukuhira, X. Ma, S. Zhang, T. Ito
- CRF-29: **Direct Numerical Simulation of a Vertical Natural Convection Boundary Layer in Water**
J. Ke, S. Armfield, A. Komiya, N. Williamson
- CRF-30: **Numerical Investigation of a Truncated Nanofluid-based Non-imaging Concentrating Photovoltaic Thermal (CPVT) System**
A. Ustaoglu, V. Akgül, B. Kursuncu, J. Okajima
- CRF-31: **Advection-diffusion Solution of the Internal MRI Environment for Analysis of Brain Function with Olfactory Stimulation**
Y. Inoue, A. Yamada, T. Yurimoto, F. Seki, Y. Takewa, J. Okajima
- CRF-32: **Study on Micro-scale Evaporation for Heat Transfer Enhancement**
J. Okajima, Y. Naka, H. Sontheimer, T. Gambaryan-Roisman, P. Stephan
- CRF-33: **Molecular Dynamics Study for Interfacial Structure and Affinity between Surface-modified Metal Oxide and Binary Mixtures of Organic Solvents**
T. Saito, Y. Sato, M. Kubo, E. Shoji, G. Kikugawa, D. Surblys, A. Komiya
- CRF-34: **A Molecular Dynamics Investigation of Ionic Conductivity in YSZ Phase Transitions**
Y. Guo, T. Taniuchi, K. Fukumoto, T. Ohara, M. Kishimoto, H. Iwai
- CRF-35: **Permeability of CO₂ Gases through DPPC Lipid Membranes using Molecular Dynamics Simulation**
F. P. Nasution, F. Yulia, N. Y. Rodjali, T. Mabuchi
- CRF-36: **Analysis of Heat and Momentum Transport Characteristics Through Droplets Inside Nanoorder Channels**
A. Fukushima, T. Tokumasu

- CRF-37: **Multi-scale Analysis of Oxygen Ion Conduction Property in Solid Oxide Electrolyte Membrane**
T. Ijichi, H. Nagashima, C. Wilhelm, A. Willsey, J. Ahn, T. Tokumasu
- CRF-38: **Molecular Dynamics Study of Interfacial Nano-Bubble**
H. Nagashima, Y. Jonosono, S. Tsuda, T. Tokumasu
- CRF-39: **Study on the Injection Process of Next-Generation Liquefied Fuels**
N. Kawaharada, I. Oshima
- CRF-40: **Gas Component Identification for Laser-Induced Cavitation Bubbles**
S. Liu, K. Nitto, O. Supponen, T. Nakajima, M. Farhat, T. Sato
- CRF-41: **Experiment and Molecular Dynamics Simulation for Plasma-Dependent Interface**
K. Tachibana, S. Liu, S. Uchida, T. Nakajima, T. Sato
- CRF-42: **Experimental Investigation on Relationship between Flow Dynamics and Micro-structure in Cellulose Nano-fiber Dispersion**
M. Motozawa, H. Takana, T. Chinju
- CRF-43: **Two-dimensional Analysis of Flow through an Orifice using Extended Finite Element Method**
T. Shimabuku, S. Miyauchi, K. Funamoto
- CRF-44: **Development of a Plasma-Liquid Interfacial Reactor on a Microfluidic Chip**
H. Yoshiki, A. Enta, T. Nakajima, T. Sato
- CRF-45: **Membrane Permeation Characteristics of Reactive Oxygen Species under Cold Atmospheric Pressure Plasma Irradiation**
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