

List of Past-Plenary Lecture

Lecturers		Presentation Title
ICFD2004	Dr. Hideki Ishida (INAX Corporation / Tohoku University)	Dynamic Activity of Water on the Nature Technology
ICFD2005	Prof. Richard Perkins (Ecole Centrale de Lyon, France)	Urban Air Quality - The Role of Flow Structure
	Prof. Sang Hee Hong (Seoul National University, Korea)	Applications of Thermal Plasma Flow Systems to Nano-materials Syntheses
ICFD2006	Prof. Wolfgang Schroder (RWTH Aachen University, Germany)	On Experimantal and Numerical Method to Analyze Wall-Bounded Free Shear Flows
	Prof. Patrick Bourgin (Ecole Centrale de Lyon, France)	Why Interdiffusion Stabilizes Stratified Flows?
	Prof. Rupak Biswas (NASA, USA)	Supercomputing for Large-Scale NASA CFD Applications
ICFD2007	Prof. H. Eugene Stanley (Boston University, USA)	New Results on Water in Bulk, Nanoconfined, and Biological Environments
	Prof. Thomas C. Corke (University of Norte Dame, USA)	Plasma Enhanced Aerodynamics: Concepts, Optimization and Applications
	Prof. R. G. Larson (University of Michigan, USA)	Addressing Unsolved Mysteries of Polymer Viscoelasticity
ICFD2008	Prof. Chul Park (KAIST, Korea)	Energy and Environment: An Aerospace Solution
	Prof. John P. Sullivan (Purdue University, USA)	Molecular Sensors and Particle Image Velocimetry -Trans- Disciplinary Flow Dynamics Techniques-
	Prof. Andrew J. Meade (Rice University, USA)	A Method of Weighted Residuals Approach to Data Fusion with Aerospace Applications
ICFD2009	Prof. Rongjia Tao (Temple University, USA)	Rheology for Efficient Energy Production, Transportation, and Conservation
	Prof. Han-III Yoo (Seoul National University, Korea)	An Odyssey to Experimentally Verify the Onsager Reciprocity in Flow of Charged Particles in Solids
	Prof. Seiji Samukawa (Tohoku University, Japan)	Ultimate Nanofabrication Technology by Neutral Particle Beam
ICFD2010	Prof. Kozo Saito (University of Kentucky, USA)	Hitozukuri and Monozukuri: Centuries' Old Eastern Philosophy to Seek Harmony with Nature
	Prof. Dimos Poulikakos (ETH Zurich, Switzerland)	Toward Green IT: Petaflop Supercomputers Cooled with Warm Water Combine Microcooling Technologies with Waste Heat Reuse and Set a New Norm
	Prof. Javad Mostaghimi (University of Toronto, Canada)	Radio Frequency Thermal Plasma: The Cutting Edge Technology in Production of Single-Walled Carbon Nanotubes
ICFD2011	Prof. Suk Ho Chung (King Abdullah University of Science and Technology, Saudi Arabia)	Energy Sustainability: A Combustion Perspective
	Prof Yiannis Ventikos (University of Oxford, UK)	Transport Phenomena, Fluid Mechanics and Multiscale Modelling Techniques for Clinical Decision Support
	Prof. Mark Drela (MIT, USA)	Low-Order Aeromechanical Medling for Conceptual Design of Fuel-Efficient Aircraft
ICFD2012	Prof. Richard A. Wahls (NASA, USA)	Green Aircraft Concepts and Enabling Technology Research at NASA
	Prof. Zeng-Yuan Guo (Tsinghua University, China)	HEAT-A Weighty Compressive Fluid
	Prof. Tomoyuki Higuchi (The Institute of Statistical Mathematics, Japan)	Data Assimilation: Challenge for Big Data through Numerical Simulation
ICFD2013	Prof. David A. Weitz (Harvard University, USA)	Fluid Flow in Micron Spaces: Fluid dynamics in Microfluidic Devices
	Prof. Subhash C. Mishra (IIT, India)	Porous Media Combustion - Its Potential Applications in Wide Range of Liquid and Gas Fuelled Cooking Stoves
	Dr. Shigeo Yata (Panasonic Corporation, Japan)	Progress in Panasonic's R&D of Advanced Photovoltaic Technologies
ICFD2014	Prof. James F. Driscoll (University of Michigan, USA)	Recent Advances in High Reynolds Number Partially-premixed Combustion Research
	Prof. Christian Boller (Saarland University / Fraunhofer IZFP, Germany)	Meas of Stabilization of Flying Inspection Vehicles to Enhance Dta Flow in Image Processing
	Prof. Constantine Megaridis (University of Illinois at Chicago, USA)	Wettability Engineering for Heat Transfer Applications

ICFD2015	Prof. Colin Britcher (Old Dominion University, USA)	Highlights from a University/Government Collaboration - Old Dominion University and NASA Langley Research Center
	Prof. James J. Feng (The University of British Columbia, Canada)	Drop dynamics in complex fluids: Partial coalescence and self-assembly
	Prof. Noritaka Usami (Nagoya University, Japan)	Challenges in Photovoltaics
ICFD2016	Prof. Holger Babinsky (University of Cambridge, UK)	Corner effects on shock-induced separation
	Prof. Igor V. Adamovich (Ohio State University, USA)	Energy conveersion in transient molecular plasmas: implications for plasma flow control and plasma assisted combustion
	Dr. Philippe Dagaut (CNRS-INSIS, France)	Probing Combustion Chemistry in Reactors to Internal Combustion Engines
ICFD2017	Prof. Koshi Adachi (Tohoku University, Japan)	Creation of Nanointerface for Super-Low Friction
	Prof. Paul Chaikin (New York University, USA)	Unstable Fronts and Stable ‘Critters’ from Micro-rollers, Self-assembly from Hydrodynamics
	Prof. Patrick Jenny (ETH, Switzerland)	From High Pressure to Vacuum Fokker-Planck/DSMC Method for Gas Dynamics at all Knudsen Numbers
ICFD2018	Dr. Meyya Meyyappan (NASA, USA)	Nanomaterials in Energy Generation and Storage
	Prof. Alexancer Smits (Princeton University, USA)	Fast and Efficient Underwater Propulsion Inspired by Biology
	Prof. Chi-Chuan Wang (National Chiao Tung University, Taiwan)	Recent Progress on the Airflow Management of Data Centers
ICFD2019	Dr. Mohamed Farhat (EPFL, Switzerland)	Jets, Shocks and Light Emission from Collapsing Cavitation Bubbles
	Professor Joaquim R.R.A. Martins (Univ. of Michigan, USA)	CFD-based Aircraft Design Optimization
	Prof. Luc Vervisch (INSA de Rouen Normandie, France)	Turbulent Reactive Flow Simulation: From Physical Modelling to Machine Learning
ICFD2020	※Due to the conference being held online, the plenary lecturers have been postponed to next year.	
ICFD2021	Prof. Junichiro Kawaguchi (Tohoku Univ. /JAXA)	Come up with the Reasons for Confidence, and Inspiration arises
	Prof. Eckart Meiburg (UCLA, SB, USA)	Particle-resolving sediment transport simulations
	Prof. Chung-Jen Tseng (National Central Univ., Taiwan)	Development of high performance PEM fuel cells
ICFD2022	Prof. Hideaki Kobayashi (Tohoku Univ.)	Ammonia Combustion for Gas Turbine Power Generation
	Prof. Konstantinos Kontis (University of Glasgow, UK)	Some Multi-Disciplinary Advancements in Fluid Dynamics
	Prof. Khalid M. Saqr (Alxandria University Hospital, Egypt)	Physiologic Blood Turbulence: Shifting the Mechanistic Paradigm of Vascular Disease
ICFD2023	Prof. Christine Rousselle (University of Orleans, France)	Specific challenges for ammonia engines.
	Prof. Hai Wang (Stanford University, USA)	Detonation Cell Cycles and Autonomously Propagating Energy Centers (APEX)
	Dr. Michimasa Fujino (Honda Aircraft Co., USA)	Development of HondaJet -From Fundamental Research to Commercialization-
ICFD2024	Prof. Annemie Bogaerts (University of Antwerp, Belgium)	Computational Fluid Dynamics Simulations of Plasma Reactor Design for Gas Conversion Applications
	Prof. Epaminondas Mastorakos (University of Cambridge, UK)	Applications and modelling of dual-fuel combustion
	Prof. Jonathan F. Morrison (Imperial College, London, UK)	Boundary Layer Control with Moving Surfaces