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Shigeru Obayashi (Director of IFS, Tohoku University)

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Location

Sendai International Center

Aobayama, Aoba-ku, Sendai, 980-0856
TEL (81)22-265-2211 FAX(81)22-265-2485
<http://www.aobayama.jp/english/>

Registration Fee

	With Banquet	Without Banquet
Advanced Registration Fee (on or before Aug. 15)	General 22,000 JPY	General 14,000 JPY
	Student 7,000 JPY	Student 3,000 JPY
Onsite Registration Fee (after Aug. 15)	General 32,000 JPY	General 22,000 JPY
	Student 11,000 JPY	Student 5,000 JPY

Important Dates

- June 1, 2016:** Deadline for **Presentation Submission**.
Extended to June 15, 2016 Please present your paper title / author's name / keywords through Presentation Submission page of ICFD2016 website.
- July 1, 2016:** Deadline for **Short Paper (A4, 2pages) Submission**
- Aug. 15, 2016:** Deadline for **Advanced Registration**

Publication & Special Issues of International Journals

Proceedings will be distributed to the conference participants with USB flash memory. Selected papers are being planned to be published in a journal after the conference. Please visit ICFD2016 website for the details.

ICFD Secretariat

For further details and related questions, please contact

ICFD2016 Secretariat: icfd2016@fmail.ifs.tohoku.ac.jp

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<http://www.ifs.tohoku.ac.jp/icfd2016/>

Thirteenth International Conference on Flow Dynamics

Second Circular

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Sendai International Center

Sendai, Japan

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SCOPE

The thirteenth International Conference on Flow Dynamics (ICFD2016), in the annual series since 2004, will be held from 10th to 12th October 2016 at the Sendai International Center, Sendai, Japan. The objectives of this conference are to explore new horizons in science and technology by discussing and exchanging information related to the most advanced scientific fields and to cutting edge technologies in Flow Dynamics. ICFD is now recognized by the world researchers and engineers as one of the biggest and the most important international conferences in the field of Flow Dynamics. It has also been playing an important role of initiating international research collaborations. It should be noted that ICFD provides young researchers and students with unique opportunities to be self-developed through proactive participation in the conference.

The first nine ICFDs were hosted by two Tohoku University COE Programs, "The 21st Century International COE on Fluid Dynamics (21COE, Year 2003 - Year 2007)" and its successor "Global COE Program World Center of Education and Research for Trans-disciplinary Flow Dynamics (GCOE, Year 2008 - Year 2012)". Institute of Fluid Science (IFS), Tohoku University, was the principal operating body for both 21COE and GCOE programs, the latter which came to an end in March 2013. In 2013, on the occasion of its 70th anniversary, IFS was regenerated as an even more powerful research institute, particularly in energy-related research, with three new flow research divisions and Innovative Energy Research Center. In this new movement, IFS has continued to support this conference series, and ICFDs were held annually in 2013, 2014 and 2015. We pledge to maintain ICFD's dynamism and spirit as a meeting for present-day distinguished scientists of Flow Dynamics as well as for future generations of scientists. Flow Dynamics is a comprehensive scientific field which deals with flow and transport phenomena concerning molecules, electrons and nanoscale particles, any continuum fluids with and without chemical reaction, any materials, energy, information, economic activities and so forth. It addresses multiscale, multiphysics and multidisciplinary problems and deals with all natural phenomena including bio processes, corrosion, weather, volcanic eruptions, earth magnetic field and tectonic motions, and in most human activities such as industrial processes, energy production & saving, and transportation. The ICFD is expected to play a significant role in encouraging Flow Dynamics to become a major academic discipline which deals with various difficult tasks by which human society is faced, such as control of nuclear power generators, global warming, energy, resource and diseases. Scientists and engineers, who are working or interested in such areas, please participate in the ICFD2016 and extend

your domains and international human networks.

ICFD works as a platform of discussion to reach scientific truth and engineering solutions for all the flow-relevant problems. Participants will know when they come to Sendai that a wide variety of sessions are opened to provide the seeds and to fulfill the needs from a viewpoint of flow. We cordially invite scholars, researchers, educationists, students and planners exploring and studying in the relevant research and development fields of bio-, nano-, material, energy, environmental, planetary and earth sciences and technologies, particularly in the academic fields of mechanical engineering, aerospace engineering, nuclear engineering, physics, medical science and engineering, chemistry, chemical engineering and all the other areas. It is a beautiful season in Sendai. We believe that you will enjoy comfortable atmosphere of autumn in Sendai.

Kaoru Maruta, Professor
Institute of Fluid Science, Tohoku University
and
Nam IL Kim, Associate Professor
Department of Mechanical Engineering,
Korea Advanced Institute of Science and Technology
General Co-Chairs, ICFD2016

Plenary Lectures

Professor Igor Adamovich (The Ohio State University, USA)
Professor Holger Babinsky (University of Cambridge, UK)
Professor Philippe Dagaut (ICARE-CNRS, France)

Sessions

General Session:

GS1: General Session

Co-Organizers: K. Maruta, T. Tokumasu

Symposium / Workshop / Organized Sessions:

OS1: The Fourth International Symposium on Innovative Energy Research I: Core Technology for Advanced Energy Devices (2016)

Organizer: S. Samukawa

OS2: The Fourth International Symposium on Innovative Energy Research II: International Workshop on Combustion Technology and Fundamentals

Co-Organizers: N. I. Kim, H. Im, S. Minaev, K. Maruta

OS3: The Fourth International Symposium on Innovative Energy Research III: Multiphase Energy Science and Disaster Damage Mitigation Technology Related to FSI Analysis

Organizer: J. Ishimoto

OS4: Biomedical Flow Dynamics

Co-Organizers: M. Ohta, H. Anzai, T. Nakayama, K. Takashima

OS5: Biomolecular Dynamics

Co-Organizers: Y. Ikeda, M. Ohta

OS6: Advanced Physical Stimuli and Biological Responses

Co-Organizers: T. Sato, T. Ohashi, S. Kawano, R. Shirakashi

OS7: International Symposium on Medical Thermo Fluid Science for Progress in Quality of Life

Co-Organizers: S. Maruyama, T. Yambe, A. Komiya, J. Okajima

OS8: Flow Dynamics and Combustion Technology in Hybrid Rocket Propulsion

Co-Organizers: T. Shimada, K. Sawada

OS9: New Dimensions of Magnetic Suspension and Balance System

Co-Organizers: K. Asai, S. Obayashi

OS10: Science and Technology of Nanoscale Heat Transfer and Outlook for their Application

Co-Organizers: T. Tokumasu, J. Shiomi

OS11: Flow Realization, Measurement and Visualization

Co-Organizers: N. Fujisawa, T. Yamagata, T. Hayase, S. Funatani

OS12: Advanced Control of Smart Fluids and Fluid Flows

Co-Organizers: M. Nakano, Y. Fukunishi

OS13: Vortex Motion: Stability, Nonlinear Dynamics, and Turbulence

Co-Organizers: Y. Hattori, S. G. Llewellyn Smith

OS14: International Workshop on Functional Plasma Flows and their Applications

Co-Organizers: H. Nishiyama, Y. Okuno, O.P. Solonenko, J. Jenista, H. Takana, N. Takeuchi

OS15: The 2nd NUAU-Tohoku University Joint Symposium on Fluid Science, Aerospace Engineering and Smart Structure Technology

Co-Organizers: K. Xiong, J. Qiu, T. Takagi, T. Uchimoto

OS16: The 12th International Students / Young Birds Seminar on Multi-scale Flow Dynamics

Co-Organizers: K. Akagami, R. Rockenbach, T. Kobayashi
Supervisors: Y. Iga, H. Shimizu, S. Uehara, K. Sato

OS17: The Sixteenth International Symposium on Advanced Fluid Information (AFI-2016) (Invited presentation session)

➢ IFS Collaborative Research Forum

Co-Organizers: H. Masuda, K. Maruta

➢ Young Researcher Overseas Visits Program Research Forum

➢ Fluids Science Research Award Lectures

Organizer: S. Obayashi

OS18: Global / Local Innovations for Next Generation Automobiles (Joint Session) (Invited presentation session)

Co-Organizers: A. Miyamoto, P. Kapsa, M. C. Williams, K. Nakatsuka

Special Session

SS1: Liaison Office Session (Invited presentation session)

Co-Organizers: M. Ohta, A. Komiya, H. Takana, T. Takagi