Seventh International Conference on Flow Dynamics
Second Circular
http://www.ifs.tohoku.ac.jp/gcoe/ICFD_html/ICFD2010_html

Sponsored by
Tohoku University Global COE Program
“World Center of Education and Research for Trans-disciplinary Flow Dynamics”

November 1st – 3rd, 2010
Sendai International Center
Sendai, Japan
http://www.sira.or.jp/icenter/english/index.html
As of Jul.1,2010

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Jun Ishimoto (AFI/TFI Chair, Tohoku University)
Toshiyuki Takagi (CEO of ICFD2010, Tohoku University)
Toshiyuki Hayase (Director of Institute of Fluid Science, Tohoku University)
Shigenao Maruyama (General Chair, Tohoku University)

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Jun Ishimoto (AFI/TFI Chair, Tohoku University)
Toshiyuki Takagi (CEO of ICFD2010, Tohoku University)
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Shigenao Maruyama (General Chair, Tohoku University)

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Organized and Sponsored by:
Tohoku University Global COE Program, “World Center of Education and Research for Trans-disciplinary Flow Dynamics”
Institute of Fluid Science, Tohoku University

In Cooperation with:
The Japan Society of Mechanical Engineers
The Japan Society of Applied Physics
Japan Society of Maintenology
The Japan Society for Computational Engineering and Science
The Japan Society of Applied Electromagnetics and Mechanics
Cryogenics Association of Japan
The Japan Society of Fluid Mechanics
Atomic Energy Agency of Japan Computational Science and Engineering Division
The International Centre for Heat and Mass Transfer

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Important Dates
July 1, 2010: Deadline for presentation submission.
July 31, 2010: Deadline for presentation submission has been extended. Please present your paper title /author's name/ Keywords submission through PRESENTATION SUBMISSION page of ICFD2010 website.
Sep. 3, 2010: Deadline for short paper (A4, 2 pages) Submission
Please submit your paper through PAPER SUBMISSION page of ICFD2010 website.
The Seventh International Conference on Flow Dynamics (ICFD2010) in the annual series will be held at Sendai International Center in Sendai, Japan from November 1st to 3rd, 2010, which is fully supported by Tohoku University Global COE Program: World Center of Education and Research for Trans-disciplinary Flow Dynamics. The objectives of this conference are not only to explore new science horizon and exchange cutting edge technologies of “Flow Dynamics”, but also to provide young researchers and students with unique opportunities of education and self-development.

“Flow Dynamics” is a comprehensive scientific field which deals with the flow and transport phenomena concerning to any fluid, any material, energy and information. The Scope of this conference covers the fluid, thermal, material, molecular and quantum dynamics of the multi-scale flows ranging from nano-scale flows such as behaviors of molecules, atoms, ions and electrons, to gigantic scale flows such as solar radiation, air-flow, multi-phase flow and typhoon on earth, oceanic flow and volcanic flow.

On behalf of the organizing committee, we cordially invite scholars, researchers, engineers, educationists and planners in the related research and development fields of bio-, nano-, energy and environmental science and technologies, mechanical engineering, aerospace engineering, nuclear engineering, physics, medical science, chemistry, chemical engineering, etc, to participate in the conference.

We are looking forward to seeing you in Sendai on November 1st to 3rd, 2010.

Plenary Lectures

Prof. Kozo SAITO (University of Kentucky, USA)
Title: “The win-win R&D strategy: How The University of Kentucky’s Institute (IR4TD) attained innovative automobile surface coating technology”

Prof. Dimos POULIKAKOS (ETH Zurich, Switzerland)
Title: “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)
Title: “Radio Frequency Thermal Plasma: The Cutting Edge Technology in Production of Single-Walled Carbon Nanotubes”

Sessions

This conference consists of the following professional sessions. If you have questions and requests about the session of your interest, please contact the ICFD2010 secretariat (icfd2010@gcoe.ifs.tohoku.ac.jp).

General Session:
GS1: General Session on Multi-Scale Flow Dynamics
Organizer: M. Nakano, T. Sato (Tohoku University)

Organized Sessions:
OS1: Fluid Dynamics Aspects of Environmentally Advantageous Hybrid Rockets
Organizer: T. Shimada (JAXA), K. Sawada (Tohoku University)

OS2: Aviation Research in Aspects of Environment
Organizer: S. Obayashi, K. Asai (Tohoku University) and S. Watanabe (JAXA)

OS3: Advanced Control of Smart Fluids and Fluid Flows
Organizer: M. Nakano, Y. Fukunishi (Tohoku University)

OS4: Flow Dynamics in Fluid Machinery
Organizer: T. Ikohagi, S. Yamamoto (Tohoku University) and M. Nohmi (Ebara Corporation)

OS5: Molecular and Nanoscale Phenomena in Fluids and Interfaces
Organizer: T. Ohara (Tohoku University), M. Shibahara (Osaka University)

OS6: Flow Dynamics in Thermal Science &Technology
Organizer: S. Maruyama, T. Ohara (Tohoku University)

OS7: The Sixth International Students / Young Birds Seminar on Multi-Scale Flow Dynamics
Organizer: M. Nakano, Y. Fukunishi (Tohoku University)

PS1: Workshop on Sustainable Atomization and Spray Technology (AFI/TFI-2010)
Organizer: J. Ishimoto (Tohoku University)

PS2: Workshop on Functionality Design of the Contact Dynamics
Organizer: T. Takagi, H. Hashizume (Tohoku University), Y. Okuno (Tokyo Institute of Technology) and M. Tanaka (Osaka University)

PS3: International Seminar on Maintenance Science and Technology for Nuclear Power Plants
Organizer: T. Takagi, H. Hashizume (Tohoku University), Y. Okuno (Tokyo Institute of Technology) and M. Tanaka (Osaka University)

PS4: 4th Functionality Design of the Contact Dynamics (DECO2010)
Organizer: T. Takagi, H. Miki (Tohoku University) and Julien Fontaine (LTDS, France)

PS5: IFS Collaborative Research Forum (AFI/TFI-2010)
Organizer: J. Ishimoto (Tohoku University)

PS6: Alumni Session
Organizer: S. Maruyama (Tohoku University)

PS7: Liaison Office Session
Organizer: T. Takagi, M. Ohta (Tohoku University)

Publication in Special Issues of Three International Journals

Proceedings will be published. Selected papers are to be published as the special issues of “Journal of Fluid Science and Technology (JFST), “Journal of Thermal Science and Technology (JTTST)” and “E-Journal of Advanced Maintenance (EJAM)” after the conference. Please visit ICFD2010 website for the details.

Registration Fee

Registration Fee: Free
Banquet Fee: General 3,000 JPY
Student 1,000 JPY

Location

The conference will be held at Sendai International Center in Sendai. (http://www.sira.or.jp/icenter/english/index.html)

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