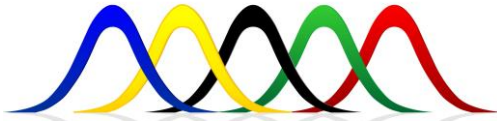


# The 15th International Heat Transfer Conference

## IHTC-15



Kyoto International Conference Center  
August 10-15, 2014, Kyoto, Japan

<http://www.ihtc-15.org/index.html>  
info@ihtc-15.org

Organized by  
**The Heat Transfer Society of Japan**  
Science Council of Japan



Under the auspices of  
**The Assembly for International Heat Transfer Conferences (AIHTC)**

### AIHTC

Supported by  
**International Centre for Heat and Mass Transfer**  
**The Japan Society of Mechanical Engineers**  
**The Society of Chemical Engineers, Japan**



## Thermal Science Meeting Societal Challenges

We invite forward-looking scientists, engineers, and researchers from all over the world to attend the Fifteenth International Heat Transfer Conference (IHTC-15). In addition to exploring the frontier of traditional research areas, we ask an important question: how can we better serve society when facing major difficult issues such as sustainable development, healthy ageing, sufficient food for all, and economic growth? The primary answer is that we must actively develop scientific and technological solutions. To do this, we need to clarify and reshape our goals for the future, and start to formulate an interdisciplinary framework for collaboration among colleagues active across a wider range of physical, life, and information sciences.

IHTC-15 will provide every participant with a unique opportunity to exchange state-of-the-art knowledge and enjoy extensive discussions throughout the conference period. We hope that IHTC-15 will magnify the scope of contributions made by the international community of thermal science and engineering professionals for the benefit and welfare of societies around the world.

### Special Features of IHTC-15

- **Oral presentations only**

All contributed papers are to be presented in parallel oral sessions.

- **IHTC Digital Library (IDL)**

The AIHTC and Begell House have agreed to establish the IHTC Digital Library (IDL). The IDL is an online archival library featuring an interactive web interface and advanced search engine for the use of active researchers and engineers. It will preserve the past and future Proceedings of the International Heat Transfer Conferences under the auspices of the AIHTC. Thus, all presented papers will be uploaded and included in the IDL after IHTC-15.

- **Awards**

The following memorial awards/medals will be bestowed, and memorial lectures will be presented:  
The William Begell Medal  
The Max Jakob Memorial Award  
The Luikov Medal  
The Nukiyama Memorial Award

- **Invited plenary lecture**

“Science of Scientific Advice”

Hiroyuki Yoshikawa

Director, Center for Research and Development Strategy, Japan Science and Technology Agency  
Past President of the University of Tokyo and the International Council of Science



- **Panel discussion**

“The Role of Thermal Science in Meeting Societal Challenges”

Organizer: Nobuhide Kasagi

### Kyoto

Since Kyoto was the capital of Japan for more than one thousand years, from 794 to 1868, it is the most historic and attractive city in Japan. Seventeen World Cultural Heritage Sites designated by UNESCO are Kyoto's crown jewels, inspiring visitors and residents alike.



## Paper Submission

**Abstract submission:** Abstracts of papers for possible presentation at IHTC-15 must be submitted online via the IHTC-15 web page. The deadline is **August 31, 2013**. Notice of abstract acceptance will be sent by September 30, 2013.

After an abstract is accepted, the full-length manuscript must be submitted by the specified due date. It will then read by reviewers assigned by regional International Scientific Committee (ISC) members. The copyright transfer form must be filled out when the full-length manuscript is accepted, prior to submission of the manuscript in its final form.

## Registration

There will be three registration categories: Regular, Student, and Accompanying Person.

	Advance On or before 30 June, 2014	Standard/On-site On or after 1 July, 2014
Regular	70,000 JPY	80,000 JPY
Student	30,000 JPY	40,000 JPY
Accompanying Person	10,000 JPY	10,000 JPY

- ♦ The Regular fee includes receptions, lunches, break refreshments and banquet.
- ♦ At least one Regular registration is required for each paper.
- ♦ One Regular registration covers only one paper.

## Important Dates

Abstract submission deadline: August 31, 2013  
 Notification of abstract acceptance: September 30, 2013  
 Full paper submission deadline: November 30, 2013  
 Notification of full paper acceptance: February 28, 2014  
 Submission of final manuscript: May 31, 2014

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**N.B.** *NSE* = not specified elsewhere

## Keywords

Classification and Keywords	
● Fundamentals	
Thermodynamics Thermochemistry	New materials Thermophysical properties
● Methodology	
Measurement and instrumentation Numerical simulation and supercomputing Computational methods Nano/Micro-scale measurement and simulation Microscopic measurement Mass spectrometry	
● Heat Transfer Processes	
Molecular transport Conduction Convection Condensation Porous media Radiation Combustion MHD and plasma Cryogenics	Photon, phonon, and electron transport Turbulent transport Two-phase/Multiphase flow Boiling and evaporation Spraying and atomization Adsorption and desorption Mass transfer and drying Electrochemical transport
● Optimization and Control	
Inverse problems Optimal theory Optimal control	Heat transfer enhancement Nonlinear thermal fluid phenomena
● Energy Utilization	
Cycle innovation Energy efficiency Renewable energy Solar energy Fuel cells Gas turbines IC engines	Energy conversion and storage Hydrogen and energy carriers Geothermal energy Energy and environmental systems Nuclear energy Carbon emission mitigation
● Equipment and Manufacturing	
Heat exchangers Heat pipes Cogeneration Thermal storage Thermal insulation NEMS/MEMS Manufacturing	Thermoelectric devices Air conditioning and refrigeration Cryogenic equipment Bio and medical applications Electronic equipment cooling Material and food processing Thermal management