

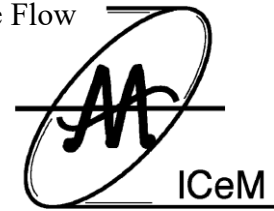


The International Information Center for Multiphase Flow

# NEWSLETTER

No. 60, March 2024

The Japanese Society for Multiphase Flow



## The 33rd International Symposium on Transport Phenomena (ISTP-33) September 24-27, Kumamoto, Japan

by Norihiko WATANABE

We are honored to take this opportunity to report on the conference.

The 33<sup>rd</sup> International Conference on Transport Phenomena ISTP-33 was held for three days from September 24, 2023, in Kumamoto City, Japan. The ISTP is organized mainly by the Pacific Center of Thermal-Fluids Engineering (PCTFE), and the ISTP is a historic international conference that was first held in Hawaii, USA in 1985, and is now in its 33<sup>rd</sup> year. It has become a venue for active discussion of basic and applied research on transport phenomena related to thermofluid engineering.

We would like to briefly touch on the venue. Speaking about Japan, many people may have heard of major cities such as Kyoto, Tokyo, and Osaka. Ja-

pan is made up of four large islands, and the westernmost island is called "Kyushu". Kumamoto is a medium-sized city located in the center of Kyushu with a population of approximately 740 thousand. It has famous tourist spots in Japan such as Aso and Amakusa. With the spread of COVID-19 having temporarily subsided, this year's event was held in Kumamoto in a completely face-to-face format. The venue was Kumamoto-Jo Hall, a new conference center in Kumamoto, and we were able to hold the conference in a spacious and comfortable environment (Photo.1).

Now, the ISTP covers a wide range of topics, and this conference covered 20 topics. There was a total of 189 presentations and approximately 260 participants, with many researchers participating and lively discussions taking place.

### To Join ICeM:

Everybody, who is interested in Multiphase flow, is welcome to join ICeM. Please contact one of the following board members to register in ICeM member.

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E-mail:

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Prof. Yukihiro Yonemoto

Kumamoto University

E-mail:

yonemoto@mech.kumamoto-u.ac.jp

Perhaps due to the effects of COVID-19 still being felt, around 70% of the participants were from Japan, but there were also participants from Europe, America, and Asia, and the event was of great significance as a forum for international discussion (Photo.2).

The conference also featured plenary lectures by four prominent professors:

- Professor Taku Ohara, Japan.
- Professor Xing Zhang, China.
- Professor Chengwang Lei, Australia.
- Professor Alex Taylor, England.

We'd like to once again thank the professors who kindly gave me valuable lectures. The plenary lectures were held at the beginning of each day in the large hall of the venue and were attended with great enthusiasm by many participants (Photo.3).

The general session was held over three days in five parallel sessions. As mentioned above, 189 presentations were given, and the sessions proceeded very smoothly, with each session attracting an enthusiastic audience and question-and-answer sessions, making it a useful forum for the exchange of information for the participants. We would also like to express my gratitude to those who accepted the session chairs here. (Photo.4)

In the evening of the second day of the conference, a banquet was held at a large hotel near the venue. Kumamoto's mascot character "Kumamon" also appeared at the banquet, making the venue lively. Kumamoto is a famous castle town in Japan, and Kumamoto Castle is especially famous. The "Omotenashi-Bushotai" came to explain the history of Kumamoto Castle along with dance, adding color to the venue. All participants had fun and were able to deepen their friendships (Photo.5).

Concludingly, the ISTP-33 was a success with many excellent presentations. In addition, the presentation papers submitted to the conference were rigorously peer-reviewed, and all the presentations were excellent. Among them, particularly excellent papers and presentations were recommended for submission to the Applied Thermal Engineering Journal (ATP). The resulting paper will be published in a special issue of ATP. The organizing committee, led by the chairperson, has already recommended 20 papers, so please look forward to the upcoming ATP special issue in the

future.

The next conference, the ISTP-34 will be chaired by Professor Chien-Yuh Yang of Taiwan National Central University and will be held in Taipei. We would like to ask for your continued participation.



Photo.1 Venue of the ISTP-33



Photo.2 Snapshots during the conference period



Photo.3 A Plenary lecture



Photo.4 General sessions



Photo.5 The banquet

[Conference Summary]

The 33rd International Symposium on Transport Phenomena (ISTP-33)  
September 24-27, Kumamoto, Japan

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Mizue Munekata, Kumamoto University.

Koji Uchida, Sojo University.

\*Cooperating Societies

The Japan Society of Mechanical Engineers

The Heat Transfer Society of Japan

The Visualization Society of Japan

The Japan Society of Fluid Mechanics

\*Plenary Lectures

Professor Taku Ohara, Institute of Fluid Science,  
Tohoku University, Japan.

Professor Xing Zhang, Key Laboratory for Thermal  
Science and Power Engineering of Ministry of  
Education, Department of Engineering Mechanics,  
Tsinghua University, China.

Professor Chengwang Lei, Centre for Wind, Waves  
and Water, School of Civil Engineering,  
The University of Sydney, Australia.

Professor Alex Taylor, Department of Mechanical  
Engineering, Imperial College London., England.

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**Author's information**

Norihiko Watanabe  
Secretary General of ISTP-33,  
Professor, Faculty of Mechanical Engineering, Sojo  
university  
nwatanabe@mec.sojo-u.ac.jp

**14<sup>th</sup> International Symposium on Ultrasonic Doppler Methods for  
Fluid Mechanics and Fluid Engineering (ISUD 2023)  
October 23-25, 2023, Kobe, Japan**

by Hideki MURAKAWA

14th International Symposium on Ultrasonic Doppler Methods for Fluid Mechanics and Fluid Engineering (ISUD 2023) was held at Kobe University, Kobe, Japan from October 23-25, 2023. The chair of the symposium was Prof. Hideki Murakawa (Kobe University). The symposium was organized by the Visualization Society of Japan. In total, 42 persons attended the technical session, and 8 persons were accompanying. This conference was supported by Met-Flow, UBERTONE, KBK, FlowBiz, Japan Probe, and NIIGATA.

The ISUD conference was first launched in 1996 at Paul Scherrer Institute in Switzerland by Professor Yasushi Takeda, who was already using and developing an ultrasonic Doppler method and apparatus for physics applications since the eighties. Seeing the extraordinary potential of all related methods and the growing interest of researchers worldwide in various scientific fields, he decided to establish a regular meeting where anyone of concern could exchange experiences, results and methodology issues. Purpose of the Symposium is to convene both specialists and newcomers to share the present knowledge about the ultrasonic Doppler methods, presenting the various studies conducted using such methods, the related methodology development itself and the implied future prospects. Since the first ISUD was held in Switzerland (1996), ISUD has been held successfully in Switzerland (1999), Switzerland (2002), Sapporo (2004), Switzerland (2006), Czech Republic (2008), Sweden (2010), Germany (2012), France (2014), Tokyo (2016), Germany (2018),

Switzerland (2021). Currently, the conference is managed by 13 scientific committee members in many countries worldwide.

In ISUD 2023, we had 2 keynote lectures, 1 special lecture, and 27 technical presentations. The first keynote lecture was given by Prof. H. Kawai (Muroran Institute of Technology) on the first day morning. The second keynote lecture was given by Prof. em. E. Windhab (ETH Zurich) on the second day morning. The special lecture was given by Prof. T. Sakagami (Kobe University) as a title of Nondestructive testing and condition monitoring techniques based on multi-wavelength infrared measurements. The technical presentations involve "Rheology & Non-Newtonian Fluid Flows", "Advanced Measurement & Fundamental Flows", "Multiphase Flows" and "Environmental Flows". All the presentations were beneficial, important, and interesting research. This conference has traditionally been held in a single session. Therefore, all participants could listen to all the presentations, making it an excellent opportunity to exchange information on recent topics regarding fluid measurement using ultrasound techniques.





Photo 1 Technical session

At ISUD, it is also a tradition to take a boat on the excursion. In this symposium, we took a cruise around Kobe Port. It was a comfortable boat cruise with fine weather. We could enjoy the cityscape of Kobe and the Akashi Kaikyo Bridge from the boat. After the cruise, we held the banquet at a restaurant attached to the sake brewery. After a mini lecture regarding the sake brewery, the banquet started. There was a saxophone performance by a participant, and we could have deeper interaction among the participants.



Photo 2 Group photo and the Kobe port cruise



Photo 3 Banquet

In the technical session, there were 7 student presentations. Among them, the UBERTONE Student Award was selected based on the discussion by the scientific committee members as follows: Mr. Kohei Ohie (Hokkaido University) for Grand prize, Ms. Sana Maeda (Kobe University) for Encouragement prize.

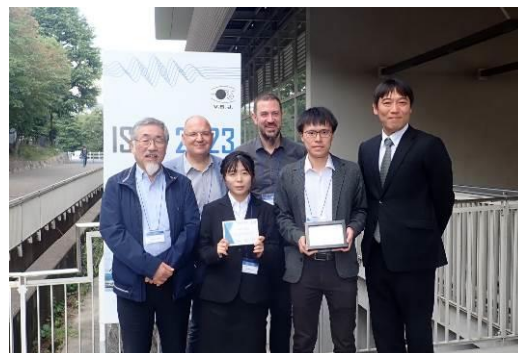


Photo 4 Student award winner

At this symposium, we valued sharing a family-like atmosphere. The organizing committee appreciate all the participants and sponsors. The next ISUD will be held in Grenoble, France in 2025.

Author's information

Hideki Murakawa  
Associate Professor, Kobe University  
murakawa@mech.kobe-u.ac.jp  
Chair of ISUD 2023

**12<sup>th</sup> International Symposium on Measurement Techniques for Multiphase Flows  
November 27-30, 2023, Tokyo, Japan**

by Hiroshige Kikura

The 12<sup>th</sup> International Symposium on Measurement Techniques for Multiphase Flows was held from 27 to 30 November 2023, at Tokyo Institute of Technology, organized by The Japanese Society for Multiphase Flow (JSMF), The Chinese Society for Measurement Techniques on Multiphase Flow, and Laboratory for Zero-Carbon Energy (ZC), Tokyo Institute of Technology. The symposium chair was Prof. Hiroshige Kikura (reporter), with the help of two co-chairs, Prof. Xiaoshu Cai (Shanghai Univ. Sci. Tech.) and Prof. Shigeo Hosokawa (Kansai University).

Since the first ISMTMF was held in Nanjing (1995), the ISMTMF has been successfully held in Beijing (1998), Fukui (2001), Hangzhou (2004), Macao (2006), Okinawa (2008), Tianjin (2011), Guangzhou (2013), Sapporo (2015), Hong Kong (2017), and Zhenjiang (2019). After being held in Zhenjiang in 2019, the 12<sup>th</sup> ISMTMF had to be extended due to COVID-19 and was finally held this year.

The focus of this symposium is to report the latest progress in developing measurement techniques for multiphase flows and exchanging new information among scientists and engineers working in universities and industries.

The present symposium contains 77 technical presentations including three plenary talks given by Dr. Satoshi Someya, Prof. Yongrong Yang, and Prof. Yoshiyuki Tagawa. The organizing committees selected four keynote lectures, given by Prof. Hiromichi Obara, Prof. Chao Tan, Prof. Chuanlong Xu, and Prof. Yohsuke Tanaka. 47 presentations were presented by students and all student presentations were evaluated by faculty participants. As a result, 8 papers were selected for the student best presentation award in ISMTMF 2023. All extended abstracts were provided to the participants on the website.



Photo 1 Group photo at Tokyo Institute of Technology



Photo 2 Cruising banquet in Tokyo Bay

Total number of the participants was 116 from China and Japan. The welcome reception was held in the recently renovated cafeteria at the Tokyo Institute of Technology on November 28. After the technical session on November 29, participants transferred from the Tokyo Institute of Technology to the Tokyo Bay area, and the symposium banquet was held on board a ship. The night view from the ship was so amazing and we enjoyed it with food and drinks.

The next ISMTMF will be held in 2025 in Dalian, China.

Author's information

Hiroshige Kikura

Symposium chair of ISMTMF 2023

Tokyo Institute of Technology

kikura.h.aa@m.titech.ac.jp

## Future Meetings

The following list includes the conference name, place, data, and contact information

### 9th International Conference on Multiphase Flow and Heat Transfer (ICMFHT2024)

London, United Kingdom, April 11-13, 2024

Chair: L. Cheng (Sheffield Hallam University),

T. G. Karayiannis(Brunel University)

<https://icmfht.com/>

### 9th International Conference on Experimental and Numerical Flow and Heat Transfer (ENFHT2024)

London, United Kingdom, April 11-13, 2024

Chair: L. Cheng (Sheffield Hallam University),

T. G. Karayiannis(Brunel University), S. Murshed(University of

Lisbon), S. Murshed(University of Lisbon)

<https://enfht.com/>

### 9th World Congress on Momentum, Heat and Mass Transfer (MHMT2024)

London, United Kingdom, April 11-13, 2024

Chair: L. Cheng (Sheffield Hallam University),

T. G. Karayiannis(Brunel University)

<https://mhmtcongress.com/>

### 9TH Thermal and Fluids Engineering Conference (Hybrid)

Corvallis, USA, April 21-24, 2024

Chair: J. Y. Murthy (Oregon State University)

<https://www.astfe.org/tfec2024/>

### 15th International Conference on Thermal Engineering: Theory and Applications (ICTEA)

Tashkent, Uzbekistan, May 29- June 1, 2024

Chair: Z. Saghir(Canada), D. Ilesaliev(Uzbekistan)

<https://www.ictea.ca/>

### The 12th Cavitation Symposium(CAV2024)

Chania, Greece, June 2-5, 2024

Chair:M. Gavaises(University of London), P. Pelz

(University of Darmstadt)

<https://cav2024.net>

### 9th European Thermal Sciences Conference (EUROTHERM)

Bled, Slovenia, June 10-13, 2024

Chair: B. Šarler (University of Ljubljana), L. Vanoli(Parthenope University of Naples)

<https://www.eurotherm2024.si/>

### 11th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT2024)

Toronto, Canada, June 16-18, 2024

Chair: B. Kruczek(University of Ottawa), W. H. Ahmed(University

of Guelph), X. Feng(University of Waterloo)

<https://ffhmt.com/>

### The 3rd Asian Conference on Thermal Sciences

Shanghai, China, June 23-27, 2024

Chair: Z. Chang-Ying (Shanghai Jiao Tong University)

<https://acts3.sjtu.edu.cn/>

### 13th International Symposium on Turbulence and Shear Flow Phenomena (TSFP13)

Montréal, Canada, June 25-28, 2024

Chair:S. Tavoularis(University of Ottawa)

<https://www.tsfp13.org/>

### 21th International Symposium on Applications of Laser and Imaging Techniques to Fluid Mechanics

LISBON, Portugal, July 8-11, 2024

Chair: E. Longmire(University of Minnesota),Y. Murai (Hokkaido

University), M. Panão(Faculty of Sciences and Technology of the

University of Coimbra), C. J. Kähler(University of the Bundeswehr

Munich), A. Moita(Instituto Superior Técnico, University of Lisbon)

<https://lisbon-lasersymposium.org/LXLASER2024/about>

### Summer Heat Transfer Conference (SHTC2024)

Anaheim, USA, July 15-17, 2024

Chair: B. Webb (Brigham Young University), Z. Zhang (Georgia In-

stitute of Technology)

<https://event.asme.org/SHTC>

### 31th International Conference on Nuclear Engineering (ICONE31)

Prague, Czech Republic, August 4-8, 2024

Chair: A. Arastu (Unison Inc.), H. Mimaki(MHI) , J. LIU(CNS)

<https://event.asme.org/ICONE>

### 7th ASME International Conference of Micro/Nanoscale Heat and Mass Transfer (MNHMT2024)

Nottingham, United Kingdom, August 5-7, 2024

Chair: P. M. Norris (George Washington University)

<https://event.asme.org/MNHMT>

### 11th International Conference on Heat Transfer and Fluid Flow (HTFF2024)

Barcelona, Spain, August 22-24, 2024

Chair: H. Qui(The Hong Kong University of Science & Technogy)

<https://htffconference.com/>

**The 26th International Congress of Theoretical and Applied Mechanics (ICTAM2024)**

Daegu, Korea, August 25–30, 2024

Chair: H. D. Kim (Andong National University)

<http://www.ictam2024.org/>

**The 14th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics, Operation, and Safety (NUTHOS-14)**

Vancouver, Canada, August 25–28, 2024

Chair: D. Novog (McMaster University)

<https://nuthos-14.org/>

**The 9th Asian Particle Technology Symposium (APT2024)**

Erlangen, Germany, September 17–21, 2024

Chair: Y. Shen (University of New South Wales), A. Yip (University of Canterbury)

<https://www.ap2024.com/>

----- 2025 and beyond, not yet determined -----

**The 12th International Conference on Multiphase Flow (ICMF2025)**

Toulouse, France, May 12–16, 2025

Chair: E. Climent (Toulouse Institute of Fluid Mechanics)

<https://www.imft.fr/icmf-2025/>

**10th World Congress on Particle Technology (WCPT10)**

Osaka, Japan, May 11–14, 2026

Chair: T. Matsuyama (Soka University)

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Academic Publication & Printings Co.

2-14-9 Kasugadenaka, Konohana-ku, Osaka, 554-0022, JAPAN

Tel : +81-6-6466-1588 Fax : +81-6-6463-2522

E-mail : [office@jsmf.gr.jp](mailto:office@jsmf.gr.jp)

URL: <http://www.jsmf.gr.jp/>



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