

No. 3 May, 2021

Thermal

Temperature-, Heat-, Energy-, Reaction-, Mass-related Alliance to Communicate within,
and Publicize beyond, the International Thermal Science and Engineering Community



ICHMT



AIHTC



ASTFE



AUTSE



EUROTHERM

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Page 2
Opening Statement
Hideo Yoshida

Page 3
**American Society of Thermal
and Fluids Engineers
(ASTFE)**
Yong X. Tao

Page 4
**Asian Union of Thermal
Science and Engineering
(AUTSE)**
Yasuyuki Takata

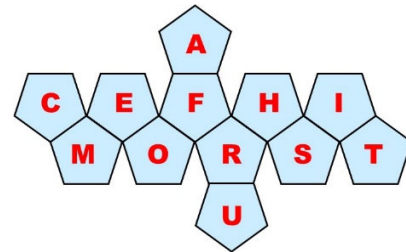
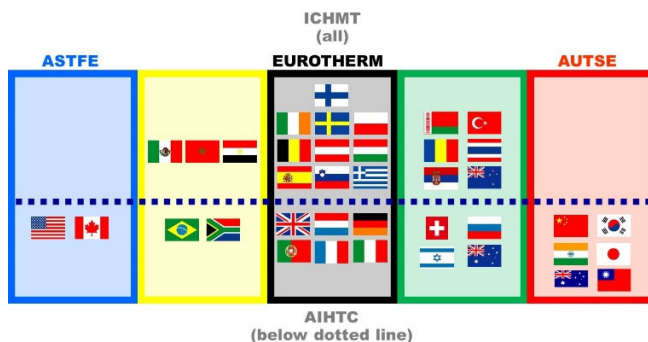
Page 5
EUROTHERM
Janusz Szmyd

Page 7
**International Centre
for Heat and Mass Transfer
(ICHMT)**
Terrence Simon, Ilker Tari, and Tugba Gun

Page 11
**Assembly for International Heat Transfer
Conferences (AIHTC)**
Xing Zhang

Opening Statement

Let's cooperate with each other under pandemic circumstances. Meetings of the five organizations are summarized below. Most of the meetings are online so they afford chances for us to attend, irrespective of location.



Net of regular dodecahedron; the five organizations can be expressed by the above twelve characters.

ICHMT

To be Organized by ICHMT

8th Int. Symposium on Advances in Computational Heat Transfer, CHT-21, **August 15 – 19, 2021**
<https://www.ichmt.org/cht-21>
 10th Int. Symposium on Turbulence Heat and Mass Transfer, THMT-22 (THMT-21: postponed),
5 – 8 July 2022, <http://www.thmt-21.org/>
 Int. Symposium on Convective Heat and Mass Transfer, CONV-22, TBA (CONV-21: postponed)
<https://www.ichmt.org/conv-22>

To be Co-sponsored by ICHMT

5th-6th Thermal and Fluids Engineering Conference, TFEC-2021, **May 26 – 28, 2021**
 see **ASTFE**
 15th Int. Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2021, **July 25 – 28, 2021**
<https://hefat2021.org/>
 6th Int. Workshop on Heat-Mass Transfer Advances for Energy Conservation and Pollution Control, IWHT-2021, **August 13 – 16, 2021**
<http://iwht2021.hrbeu.edu.cn/>
 14th Int. Conference on Thermal Engineering, ICTEA, **October 26 – 28, 2021**
<https://www.ictca.ca/>
 12th Mediterranean Combustion Symposium, MCS-12, **January 23 – 27, 2023**
<https://www.combustioninstitute.org/ci-event/12th-mediterranean-combustion-symposium/>

ASTFE

5th-6th Thermal and Fluids Engineering Conference, TFEC-2021
May 26 – 28, 2021,
 New Orleans, LA, USA
<https://www.astfe.org/tfec2021/>

EUROTHERM

8th European Thermal Sciences Conference, EUROTHERM2021
September 19 – 23, 2021,
 Lisbon, Portugal
<http://www.eurotherm2020.pt/>

AUTSE

2nd Asian Conference on Thermal Sciences, 2nd ACTS
October 3 – 7, 2021,
 Fukuoka, Japan
<https://acts2020jp.org/>

AIHTC

17th Int. Heat Transfer Conference, **August 8 – 12, 2022**
 Cape Town International Convention Centre, Cape Town, South Africa
<https://na.eventscloud.com/ehome/349880/752652/?t=8bee88cab826ae297fed7f2818d91011&eb=575142>

American Society of Thermal and Fluids Engineers (ASTFE)

Yong X. Tao, President

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Like all the fellow societies, the American Society of Thermal and Fluid Engineers (ASTFE) faces the same challenge due to the global Covid-19 pandemics that all the events are changed to a virtual delivery mode. Despite this challenge, ASTFE, being an agile organization, continues to focus on emerging research applications, including those related to Covid-19.

Activities

Annual Conference. ASTFE postponed its Thermal and Fluids Engineering conference in 2020 due to the pandemic. In May of 2021, our annual international conference resumed and the 5th-6th Thermal and Fluids Engineering Conference is presented as a virtual event. Please see the web site https://www.astfe.org/tfec2021/conference_program/. TFEC-2021 registrants have access to all recorded presentations for one year. These presentations are included in the Begell House digital library and several Begell House journals that continue to be affiliated with the Society. Authors are encouraged to submit their articles to these journals. We look forward to resuming on-site events in the future.

Covid-19 Themed Workshop. Over the past year, with the challenges associated with COVID-19, ASTFE has worked to adapt its programming while continuing to provide its members opportunities to discuss contemporary world problems and solutions along with how thermal scientists and engineers can help to address these challenges. In August of 2020, ASTFE presented a virtual workshop on Covid-19: Challenges in Research and Education. The workshop featured invited speakers including keynote addresses, panelists and outstanding scientists and engineers engaged at the forefront of this battle and were involved in research and development in combatting the COVID-19 pandemic. Well-received, ASTFE is working to develop additional programming in support of industrial needs and global challenges.

NSF Sponsored Project. A recent initiative in which ASTFE is involved as a proud co-sponsor is the *Center of Leadership Development in Built Environment Sustainability (CLDBES)*. With the support of NSF, ASTFE, and university partners, the CLDBES program is designed to provide U.S. students an international experience through a leadership and professional development program in sustainable built environment research. Our aim is for this project to be scaled up for broader adoption in the future for professional societies and academic institutions. ASTFE provides administrative support to the program, serves in an advisory role, and facilitates the Sustainability Tank Challenge at the annual TFEC conference.

Awards

ASTFE continues to honor our members for impressive achievements and contributions. Eleven new distinguished scholars have been elected as Fellows in the past two years. In addition, the 2020 and 2021 Thermal and Fluids Engineering Award will be presented to Professor Yogesh Jaluria of Rutgers University and Professor Joseph Katz of Johns Hopkins in recognition of substantial contributions to the field. Also, the International Centre for Heat and Mass Transfer (ICHMT) will present the Luikov Medal to Professor John Howell. These awards will be presented at the 5th-6th Thermal and Fluids Engineers Conference (TFEC), May 26-28, 2021.

International Collaboration

International collaboration remains an important focus of the Society. ASTFE continues its international collaboration with the Japan Society of Mechanical Engineers (JSME) and the Korea Society of Mechanical Engineers (KSME) with whom ASTFE continues to be an integral organizer of the Pacific-Rim Thermal Engineering Conference (2019 and 2023-PRTEC), and with the Indian Society of Heat and Mass Transfer (ISHMT) for the 2021 ISHMT-ASTFE conference in December 17-20, 2021. Future conferences are in the organizing stages to encourage joint collaboration and research.

Asian Union of Thermal Science and Engineering (AUTSE)

Yasuyuki Takata, President

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New normal

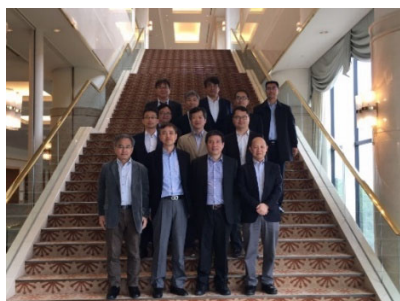
The global outbreak of COVID-19 is affecting almost every aspect of our lives, including how we meet and communicate. AUTSE Executive Board (EB) meetings used to be held face-to-face during international conferences and topical seminars. However, the EB meeting in 2020 was held monitor-to-monitor (online). Ironically it has some positive effect. For the first time the attendance was 100%, which was not possible in the past due to travel limitations. The EB meeting in April 2021 was held in the same manner.

Activities

In 2019, AUTSE co-organized MTTSE-2019 (2nd International Symposium on Measurement Technology in Thermal Science and Engineering) which was held during November 16-17 in Dalian, China. The Union sponsored two conferences. The first one is ASCHT2019 (The 7th Asian Symposium on Computational Heat Transfer and Fluid Flow), which was held during September 3-7 in Tokyo, Japan. The second one is ISOPHP2019 (International Symposium on Oscillating/Pulsating Heat Pipes) which was held during September 25-28 in Daejeon, Korea. Prof. Sung Jin Kim at KAIST, Past President of AUTSE, chaired ISOPHP2019. As a general and regular meeting of AUTSE, the Union is going to hold the Asian Conference on Thermal Sciences (ACTS) every four years in cooperation with a local heat-transfer society/organization within the Asian region. The 2nd ACTS was initially planned to be held in November 2020 but postponed due to COVID-19 pandemic. The 2nd ACTS will be held online during Oct. 3-7, 2021, which is organized by Heat Transfer Society of Japan and co-organized by participating societies in Australia, China, Chinese Taipei, India, and Korea. More details can be found on the official webpages of the 2nd ACTS and AUTSE, <http://acts2020jp.org/> and <http://autse-asia.org/>.

Awards

There are two kinds of awards conferred by the Union: OAA (Outstanding Achievement Award) and YSA (Young Scientist Award). The OAA will be conferred every four years at the ACTS Conferences, and YSA may be presented every two years at appropriate topical seminars sponsored by the Union. In 2020, AUTSE has decided to confer the OAA's on Prof. Ken Okazaki at Tokyo Institute of Technology, Japan and Prof. Sang Yong Lee at KAIST, Korea. The YSA's was conferred on Dr. Boxiang Wang at Shanghai Jiatong University, China, Dr. Tsuyoshi Nagasawa at Tokyo Institute of Technology, Japan, and Dr. Yongseok Jeon at Chonnam National University, Korea. The OAA and YSA will be awarded next year during the 2nd ACTS.



Executive Board meetings in Miyazaki in April and Dalian in November, 2019



EUROTHERM

Janusz Szmyd, President

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Eurotherm Leadership

Professor Paolo di Marco from the University of Pisa, Italy, and Professor Janusz Szmyd from the AGH University of Science and Technology, Poland, secretary of Eurotherm, finished their terms as President and Secretary of Eurotherm, respectively, in 2018. Professor Janusz Szmyd was elected as the new President. Prof. Pedro Coelho from Instituto Superior Técnico, University of Lisbon, Portugal, is the new Secretary.

Recent Eurotherm Seminars

- Eurotherm Seminar No. 111 - Nanoscale and Microscale Heat Transfer VI

This seminar was held from 2nd to 6th December 2018, in Levi, Finland, and chaired by Profs. Mika Prunnila, Ilari Maasilta and Riccardo Messina. There were 5 invited speakers, 71 oral presentations, including the invited ones, and 134 participants from 20 countries.

- Eurotherm Seminar No. 112 - Thermal Energy Storage

This seminar was held from 15th to 17th May 2019, in Lleida, Spain, and chaired by Profs. Luisa Cabeza, Gennady Ziskind and Michel de Paepe. There were 67 oral presentations and 38 posters.

- Eurotherm Seminar No. 113 - METTI-7 Advanced School on Thermal Measurements and Inverse Techniques

This meeting, the 7th METTI School, was held from 29th September to 4th October 2019, in Porquerolles, France, and chaired by Profs. Fabrice Rigollet, Jean-Laurent Gardarein, Denis Maillet and Jean-Luc Battaglia. There were about 100 participants.

Future Eurotherm Seminars

- Eurotherm Seminar No. 114 - Nanoscale and Microscale Heat Transfer VII

This seminar, originally scheduled to 8th-12th June 2020, in Palermo, Italy, was postponed to 2021 due to the outbreak of the pandemic. It will be chaired by Profs. Riccardo Messina, Philippe Ben-Abdallah and Svend-Age Biehs. The focus is on phenomena at short length and time scales, where the laws of physics used in classical heat transfer are no longer valid. Heat conduction and energy transport, driven by the mesoscopic transport of electrons and phonons and thermal radiation at sub-wavelength scale are the typical topics tackled in the conference as well as non-equilibrium and quantum effects. Themes of the conference will also include application of these concepts to nano-objects, thermal metrology and different devices like thermal detectors.

- Eurotherm Seminar No. 115 - Caloric Heating and Cooling

This seminar, originally scheduled to 13th-15th July 2020, in Enschede, The Netherlands, was postponed to 13th-15th July 2021, and it will be an online event. It will be chaired by Profs. Ekkes Brück, Mina Shahi and Muhammet S. Toprak. This seminar will gather scientists and engineers to present the state of the art and the modern trends in caloric heating and cooling technologies and to foster an environment conducive to exchanging ideas. Theoretical, numerical and experimental approaches will be presented for development of caloric materials & devices. It will include plenary lectures given by keynote speakers followed by contributed presentations. Further information is available at <https://eurotherm.et.utwente.nl/>.

Young Scientist Prize and Awards

The Eurotherm Committee confers, every four years, one Eurotherm Young Scientist Prize and two Eurotherm Awards. The prizes are presented at the European Thermal Sciences Conference. The candidates must have obtained within one of the Eurotherm countries a Ph.D. degree in the field of Thermal Sciences and Heat Transfer. They should be younger than 35 years at the date of the prize. Each European country can submit to the Prize Committee a maximum of two candidates for the Prize and the Awards. The Prize Committee is nominated every four years by the Eurotherm Committee and consists of six members chosen within its delegates. In 2020, the Prize Committee is constituted by Profs. Andrzej Nowak, Stephan Kabelac, Michel de Paepe, Gian Luca Morini, Peter Stephan, Theo van der Meer.

European Thermal Sciences Conference

The European Thermal Sciences Conference is organized every four years under the auspices of the Eurotherm Committee. The 8th edition was scheduled to 6th-10th September 2020, in Lisbon, Portugal, but postponed to 19th-23rd September 2021. It will be chaired by Profs. Pedro Coelho and Carlos Castro. The aim of this Conference is to promote and to encourage European cooperation in thermal sciences and heat transfer by bringing together scientists and engineers working in specialized areas. The conference topics include both fundamentals (e.g., boiling and condensation, combustion, computational/numerical methods, conduction, convection, evaporation, mass transfer and drying, melting and solidification, micro/nano scale heat transfer, porous media, thermal radiation, turbulent transport, two-phase/multiphase flows) and applications (e.g., aerospace and aeronautics technology, bioheat transfer, biomedical engineering, electronic cooling, energy engineering, environmental applications, fires, heat exchangers, heat transfer in buildings, inverse problems, optimization in heat and mass transfer). The programme comprises keynote lectures, oral presentations and poster sessions. All papers are peer-reviewed, and the accepted papers will be published in the Journal of Physics: Conference Series. The authors of the best papers will be invited to submit extended versions of their manuscripts to special issues of *Applied Thermal Engineering* and *Heat and Mass Transfer*. Further information is available at <http://www.eurotherm2020.pt/>.

International Centre for Heat and Mass Transfer (ICHMT)

Terrence Simon, President

University of Minnesota, Minneapolis, U.S.A., simon002@umn.edu

Ilker Tari, Tugba Gun

ICHMT



Heat and Mass Transfer constitute some of the key phenomena of human activity in many facets of society. Much of the technology needed for sustainable development while addressing the impact on our climate are related to applications of heat and mass transfer. Through the ICHMT, the community has developed techniques for continued advancement for decades and has contributed greatly to modern medicine, transportation, electronics, manufacturing, and so much more. The field continues to mature and confront renewed challenges with the development of new techniques, instrumentation, and applications required for sustained development. ICHMT will sponsor symposia that open new frontiers for discovery and innovation that we can only imagine at this time. Consider our field at the inception of the ICHMT in the late 1960s with the progress made, and project another 50 years.

In 2018, the ICHMT celebrated its 50th year advancing its noble mission of providing apolitical forums for the world's leading scientists and engineers in all branches of heat and mass transfer to communicate, collaborate and pursue excellence. Though the COVID-19 pandemic was a major obstacle this year, the Centre continued to foster international exchange and cooperation. Its prime activities are the scientific and engineering conferences and symposia, problem-focused meetings, forums, international schools and short courses, as well as publications of proceedings archived as ICHMT publications, all aimed at promoting research, education, and exchange of ideas, as well as mutual understanding and good will for the benefit of humankind. The fast pace of the present requires this communication now more than ever.



Meetings Organized by ICHMT:

“9th International Symposium on Radiative Transfer, RAD-19”, 3 – 7 June 2019, in Athens, Greece. The Symposium Chairmen were Prof. Brent Webb, Brigham Young University, USA and Dr. Denis Lemonnier, ISAE-ENSMA, France.

Meetings Co-Sponsored by ICHMT:

“7th METTI Advanced School on Thermal Measurement and Inverse Techniques”, 29 September – 4 October 2019, Porquerolles island in Hyères, France. The symposium Chairman was Professor Denis Maillet, University of Lorraine, France.

“5th International Workshop on Heat/Mass Transfer Advances for Energy Conservation and Pollution Control, IWHT-19”, 13-16 August 2019, in Novosibirsk, Russia. The symposium Chairmen were Professor Aleksandr Pavlenko, Kutateladze Institute of Thermophysics, Russia and Prof. S.V. Alekseenko, Kutateladze Institute of Thermophysics, Russia.

“14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT-2019”, 22-24 July, 2019, in Wicklow, Ireland. The symposium Chairman was Professor Josua Meyer, University of Pretoria, South Africa.

“11th Mediterranean Combustion Symposium, MCS-11”, 16-20 June, 2019, in Tenerife, Spain. The symposium Co-Chairmen were Dr. Federico Beretta, Consiglio Nazionale delle Ricerche, Napoli, Italy; Prof. Nevin Selcuk, Middle East Technical University, Ankara, Turkey; Prof. Mohy S. Mansour, American University in Cairo, Egypt and Prof. Andrea d’Anna, Università degli Studi di Napoli Federico II, Naples, Italy.

“4th Thermal and Fluids Engineering Conference, TFEC-2019”, 14 – 17 April 2019, in Westin Las Vegas Hotel & Spa, Las Vegas, NV, USA. The Symposium Co-Chairman was Dr. Darrell W. Pepper, University of Nevada, USA.

“The 12th International Conference on Thermal Engineering Theory and Applications, ICTEA-2019”, 23 – 26 February 2019, in Gandhinagar, Gujarat, India. The Symposium Co-Chairmen were Professor Surrendra Singh Kachhwaha, Pandit Deendayal Petroleum University, India and Professor Ziad Saghir, Ryerson University, Canada.

The organization of several future meetings have continued. These are:

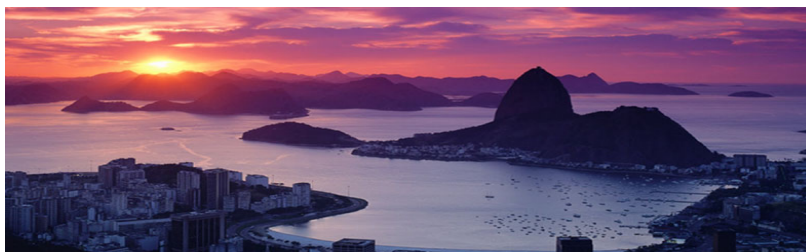
Note: Many international conferences scheduled in 2020 have been postponed or cancelled because of COVID-19. Meetings Organized by ICHMT or Co-Sponsored by ICHMT were also postponed to 2021, or beyond. Updates of these meetings can be found on the web site, <http://www.ichmt.org>

Meetings to be Organized by ICHMT:

“10th International Symposium on Turbulence Heat and Mass Transfer, THMT-21” (THMT-21 is postponed to 2022) St. Petersburg, Russia. The Symposium Chairman is Professor D. Markovich, Kutateladze Institute of Thermophysics, Siberian Branch of Russian Academy of Sciences, Russia. The Symposium Co-Chairmen are Professor K. Hanjalic, Delft University of Technology, The Netherlands; Professor K. Suga, Osaka Prefecture University, Japan. Detailed information can be found on the Web site: <http://www.thmt-20.org/>



“8th International Symposium on Advances in Computational Heat Transfer, CHT-21” (CHT-20 is postponed to 2021), 16 – 20 August 2021, in Rio de Janeiro, Brazil. The Symposium Co-Chairmen are Professor Yogesh Jaluria, Rutgers University, USA and Professor Helcio R. B. Orlando, Federal University of Rio de Janeiro, UFRJ, Brazil. Detailed information can be found on the Web site: <https://www.ichmt.org/cht-20>



“3rd International Symposium on Convective Heat and Mass Transfer, CONV-22”, TBA, Izmir, Turkey. The symposium Chairmen are Dr. Mourad Rebay, University of Reims, France and Dr. Alpaslan Turgut, Izmir, Turkey. Detailed information can be found on the Web site: <https://www.ichmt.org>



Meetings to be Co-sponsored by ICHMT:

“5th-6th Thermal and Fluids Engineering Conference, TFEC-2021”, 26 – 28 May 2021, The conference will be a virtual conference held entirely online. The Symposium Co-Chairmen are Dr. Ting Wang, University of New Orleans, USA and Dr. Michael W. Plesniak, The George Washington University, USA. Detailed information can be found on the Web site: <https://www.astfe.org/tfec2021/>

“15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT-2021”, 26-28 July, 2021 in NH Collection Amsterdam Grand Hotel Krasnapolsky, Amsterdam, Netherlands. The symposium Chairman is Professor Josua P. Meyer, University of Pretoria, South Africa. Detailed information can be found on the Web site: <https://na.eventscloud.com/ehome/hefat2020>

“6th International Workshop on Heat/Mass Transfer Advances for Energy Conservation and Pollution Control, IWHT-2021”, 13 - 16 August 2021 in Harbin, China. The Symposium Co-Chairmen are Y.J. Li, Harbin Engineering University, China; Q.W. Wang, Xi’an Jiaotong University, China; Y.T. Chen, University of Nevada Las Vegas, USA. Detailed information can be found on the Web site: <http://iwht2021.hrbeu.edu.cn>

“14th International Conference on Thermal Engineering Theory and Applications, ICTEA-2021”, 26 – 28 October 2021, in Kuwait City, Kuwait. The Symposium Co-Chairmen are Professor Ali J. Chamkha in the Kuwait College of Science and Technology, Kuwait and Professor M.Ziad Saghir, Ryerson University, Canada. Detailed information can be found on the Web site: <https://www.ictea.ca/>

“12th Mediterranean Combustion Symposium, MCS-2023”, 23 – 27 January 2023, Luxor, Egypt. The symposium Co-Chairmen are Dr. Federico Beretta, Consiglio Nazionale delle Ricerche, Napoli, Italy; Prof. Nevin Selcuk, Middle East Technical University, Ankara, Turkey; Prof. Mohy S. Mansour, American University in Cairo, Egypt and Prof. Andrea d’Anna, Università degli Studi di Napoli Federico II, Naples, Italy. Detailed information can be found on the Web site: <https://www.combustioninstitute.org/ci-event/12th-mediterranean-combustion-symposium/>



7.6.2019 in Athens

Recent Awards:

- Professor John (Jack) Howell is the recipient of the 2018 Luikov Medal for outstanding contributions to Heat and Mass Transfer and for international scientific cooperation.
- Professor Jean-Francois Sacadura is the recipient of the 2019 ICHMT Fellowship award
- Zhuomin M. Zhang, Xiaohu Wu, and Ceji Fu are the recipients of the 2019 Hartnett-Irvine award for the paper "Kirchhoff's Law for Anisotropic Media Including Thin Films." It was presented at the 9th Int'l Symp. on Radiative Transfer, RAD-19, Athens, Greece, 2019.

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<https://www.ichmt.org/p/officers-of-ichmt>

Assembly for International Heat Transfer Conferences (AIHTC)

Xing Zhang, President

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The Assembly for International Heat Transfer Conferences organizes an International Heat Transfer Conference every four years. The next will be the 17th International Heat Transfer Conference (IHTC-17) to be held in Cape Town, South Africa. For the most up-to-date information about it, please visit the conference web site: <https://ihtc17.org/> or <https://na.eventscloud.com/ehome/349880/752652/?&t=8bee88cab826ae297fed7f2818d91011&eb=575142>