

Executive Committee Meeting Minutes

American Nuclear Society – Thermal Hydraulics Division
Executive Committee Meeting
Grand Hyatt, San Antonio, San Antonio, TX
Sunday, June 7, 4:30 p.m.-6:00 p.m.
Location: Republic B

Attendees: S. Y. Lee, D. Schubring, S. Kim, D. Aumiller, I. Bolotnov, L. Carasik, F. B. Cheung, P. Ferroni, D. Guillen, J. Kim, W. Marcum, E. Merzari, M. Murase, D. Pointer, C. H. Song, D. Todd, F. Aydogan, Y. H. Jeong, O. Ozdemir, M. Avramova, B. W. Yang, S. Sloan, X. Sun, R. Hu, P. Sabharwall, H. Ninokata. Scanned copy of the actual list of attendees is shown in Appendix A

1. Opening (Lee)

Dr. Lee opened the meeting at 4:30PM. He noted that some members who were absent from the meeting have requested proxies for their votes as follows: Jong Kim for Xu Cheng, Si Young Lee for Don Todd, and Xiaodong Sun for Kurshad Muftuoglu.

2. Approval of Meeting Agenda (All)

Dr. Aumiller made a motion to consider reconstructing division service award. Dr. Pointer seconded.

Following amendments were made to the draft EC Meeting EC agenda (A copy of the draft EC Meeting Agenda is attached in Appendix B): (a) Dr. Lee noted that item 3b of the draft meeting agenda is a typo and needs to be eliminated. Dr. S. Kim acknowledged that it was indeed a typo; (b) Dr. Sun suggested to add “*Approval of PC members*” as an additional agenda under the agenda item “*5. Program Committee Report*”; (c) Dr. Lee suggested to move the item “*11b. Revisiting the role of THD-CSC (Lee/J. Kim)*” to 3b under the agenda item “*3. Action Items from 2014 Winter Meeting*”; (c) Dr. Schubring suggested to add a new item as 5h to let the THD Chair sign off on membership of best reviewer award sub-committee. Dr. Schubring made a motion to approve the agenda as modified. Dr. Aumiller seconded

3. Action Items from 2014 Winter Meeting (Lee)

a. Summary of EC approvals via electronic votes since 2014 Winter Meeting (Lee)

Dr. Lee noted the motion to accept the CSC recommendation to award the NURETH-17 conference to the CNS-XJTU proposal, which was passed with 17 votes in favor and 2 votes against out of 19 eligible votes.

b. Revisiting the role of THD-CSC (Lee/J. Kim)

Dr. J. Kim noted that summary of the CSC’s role was provided to all EC members in February 18, 2015. He recommended that there should be seven members in the committee. Dr. J. Kim also expressed his intention to resign as the Chair of CSC as of this EC meeting.

It was discussed among members that following considerations need to be made in the appointment of the CSC members: The Chair of CSC is to be elected by EC; CSC should include the PC Chair and an EC member elected by EC; Rest of the members are to be appointed by the Chair of CSC. The CSC members must be chosen from THD members who are well 'experienced', e.g., members who have experience in organizing major THD conferences such as NURETH.

Dr. Schubring added that conflict-of-interest (COI) needs to be accounted for in serving the committee.

Dr. Cheung suggested that we elect seven members with one additional alternate member who shall replace the member with COI. He also suggested that the '*experienced member*' in selecting CSC member could be those who served as the major organizing members in previous NURETH conferences. He noted that once the EC selects CSC members, CSC should be given full credibility of the decision. He proposed that two of the CSC members have two-year appointments, two have four-year appointments, and the rest three have six-year appointments.

Action Item: Dr. Schubring proposed that Dr. Schubring, Dr. Cheung, and Dr. J. Kim work together to develop a written proposal, including by-laws, qualification of the membership, roles, etc.

Dr. J. Kim reminded that such information was already shared in February 18, 2015 through an email and was widely accepted, except for the definition on '*experienced member*' as a member selection criterion.

Dr. Aumiller proposed that we continue the discussion via email electronically instead of waiting until Winter 2015 meeting. Dr. Sun proposed to review existing bylaw from 2013 meeting.

Dr. Schubring made a motion to review the existing bylaw and amend as necessary. The motion was seconded by Dr. Merzari.

c. Current status for TAA endowment account (Muftuoglu/Sun)

Dr. Sun reported on behalf of Dr. Muftuoglu due to his absence based on the Spring 2015 THD Newsletter (as attached in Appendix C). He reported that, according to the HQ accounting, the 2014 year-end account balance was \$39,062. Of this amount, \$20,576 is under temporarily restricted funds, and the rest, \$18,485, is under board-designated assistance funds. The spending limit for 2015 is 9.24%, providing \$3,609 for potential allocation.

Action item: Dave pointer will follow up with the Headquarter on the endowment for the TAA.

4. Treasurer's Report (K. Muftuoglu / Sun)

Dr. Sun reported on behalf of Dr. Muftuoglu due to his absence based on the Spring 2015 THD Newsletter (as attached in Appendix C). He reported that the 2014 end of year was \$16,794 as a result of: the balance of \$17,706 forwarded from 2013; 2014 total income of \$4,112; and 2014 total expenses of \$5,024. He also reported that the 2015 expenses to

date are disbursements for \$500 for Student Conference support and another \$500 for HQ-directed travel support to ANS national meetings.

5. Program Committee Report (Sun)

a. 2015 ANS Annual Meeting Program in San Antonio, TX

Dr. Sun reported that a total of 42 summaries were submitted to the seven proposed TH summary sessions, which received a total of 135 review recommendations from 28 reviewers. Detailed data are summarized in the 2015 ANS Annual Meeting report as attached in Appendix D.

Dr. Aumiller added an announcement on the Young Professional Thermal Hydraulics Research Competition, organized by THD and co-sponsored by the ANS Young Member Group, to be held during the 2015 ANS Winter Meeting

Dr. Lee asked Dr. Sun to pause PC report in order to invite student representatives from Texas A&M and University of Wisconsin-Madison who reported on 2015 ANS Student Conference and presented 2016 ANS Student Conference, respectively.

b. 2016 ANS Annual Meeting Program in New Orleans, LA (Sun)

As discussed in PC, there will be one consolidated THD session listed as "General Thermal-hydraulics" in the call for paper. Motion forwarded from PC to approve (a) ATH-16 to be the embedded topical in ANS Annual Conference, (b) General chairs, (c) TPC chairs, and (d) Assistant-TPC chairs was approved.

c. NURETH-16 Report (Sun/Merzari)

As reported in the PC meeting minutes, a total of over 980 abstracts and 742 full papers were submitted. An average of 2.5 reviews were performed per paper. The NURETH-16 program committee is in the process of collecting final papers and preparing the preliminary program.

d. NUTHOS-11 Report

As reported in PC meeting, the official website is being constructed, and preliminary topics are being organized. NUTHOS-11 was approved as a Class-IV meeting by the ANS NPC. Abstract is due Dec. 15, 2015.

e. NURETH-17 Report

Discussion from PC meeting on the change of conference dates resumed in EC meeting – NURETH 17 organizers have requested permission to change the originally proposed conference dates of August, 2017 to September 3-8, 2017 due mainly to the weather and also not to overlap with other events in the location.

Dr. Cheung suggested that we let hosting organizers make decision on dates and other details. Dr. Aumiller noted while he was in favor of changing the dates, change of the conference dates need to be discussed with THD EC in view of maintaining the

integrity of EC. Dr. Cheung moved that we change NURETH-17 dates to September 3-8, 2017. Dr. Aumiller seconded. The motion passed with 14 votes in favor and 1 abstain.

f. ATH '16 Planning (Sun)

Detailed discussion on ATH '16 planning was made in PC meeting, which included time frame and organizing members.

Note: ATH'16 as an embedded topical meeting to the ANS 2016 Annual Meeting was later approved, pending the approval of the publication plan, by the ANS NPC on Wednesday, June 10, 2015

g. Approval of PC Members

Dr. Sun asked EC to approve two new PC members, including Yong Hoon Jeong (KAIST) and Dr. Maria Avramova (Penn State University), who were approved unanimously. Dr. Sun reminded it brings PC membership to 50, reaching its cap.

Action Item: To make a motion either (a) to come up with a list of members who can be moved from acting members category to advisory members category, or (b) to request EC to consider increasing the cap.

h. Excellent Reviewer Award: Motion forwarded from PC was approved by the chair.

6. Honors and Awards Committee Report (Ninokata)

Dr. Ninokata reported that Dr. Brian Woods will replace him as the HAC Chair after 2015 ANS Annual Meeting. He noted that HAC will recommend EC for Best paper award. He also added that HAC was looking for a nomination for the ANS Fellow. Dr. Aumiller suggested that Dr. Woods invigorate HAC and consider the service award.

7. Nominating Committee Report (Aumiller)

Dr. Aumiller reports that there are two new EC members including Dr. Philippe Bardet (George Washington University) and Dr. Jeffrey M. Lane (Zachry Nuclear Engineering). Additionally, re-elected members include Dr. Chul-Hwa Song (KAERI) and Dr. Xu Cheng (Karlsruhe Inst. Technology)

8. Division Website Report (Marcum)

Dr. Marcum reported that the division by-laws need to be updated. Dr. Schubring noted that ANS would recommend graphical template to all divisions. Dr. Schubring will contact ANS to check what THD need to do with the template.

9. Membership Committee Report (Aumiller)

Dr. Pointer: The PDC will develop membership plan based on a template.
Action item: Dr. Schubring to send membership information to Dr. Lee.

10. Old Business (All)

- a. PC Membership (Sun/Merzari): Two additional members were approved as reported in 5g.
- b. Excellent Reviewer Award (Merzari): The award will be named as Excellent Reviewer Certificate. Details including the award frequency and selection process will be discussed by a newly formed special committee, Excellent Reviewer Selection Committee (ERSC). ERSC will consist of PC char/vice-chair and two EC members. It will continue to be discussed as one of the ongoing items.
- c. NURETH-18, 2019 (Muftuoglu): Dr. Sun reported on behalf of Dr. Muftuoglu due to his absence. Holding meeting in Charlotte, SC was not received favorably. This item is closed.

11. New Business (All)

- a. Establishment for Undergraduate TH Scholarship (Lee): Dr. Lee noted that there could be a sizable donation to THD.
Action Item: Dr. Schubring to interact with Toni to discuss this further.

The meeting was adjourned at 5:58PM

**Thermal Hydraulics Division
Executive Committee Meeting
Grand Hyatt San Antonio
San Antonio, Texas
June 7 2015**



ANS

Name	Signature when present
Si Young Lee Chair	
DuWayne L. Schubring Vice Chair	
Seungjin Kim Secretary	
Kurshad Muftuoglu Treasurer	
David L. Aumiller, Immediate Past Chair	
Igor A. Bolotnov	
Lane B. Carasik	
Xu Cheng	
Fan-Bill Cheung	
Francesco D'Auria	
Paolo Ferroni	
Donna P. Guillen	
Takashi Hibiki	
Jong H. Kim	
Wade R. Marcum	
Elia Merzari	
Michio Murase	
W. David Pointer	
Chul-Hwa Song	
Donald R. Todd	
Others, please PRINT in	(if there is not enough space, feel free to use the other side)
Fatih Aydogan	
Yong Hoon JEONG	
OZKAN EMRE OZDEMIR	
MARIA AVRAMOVA	

AGENDA

American Nuclear Society – Thermal Hydraulics Division
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2. Approval of Meeting Agenda (All)
3. Action Items from 2014 Winter Meeting
 - a. Summary of EC approvals via electronic votes since 2014 Winter Meeting (Lee)
 - b. Approval of 2014 Winter Meeting PC Minutes (Lee / Kim)
 - c. Current status for TAA endowment account (Muftuoglu)
4. Treasurer's Report (K. Muftuoglu)
5. Program Committee Report
 - a. 2015 ANS Annual Meeting Program in San Antonio, TX (Sun)
 - b. 2016 ANS Annual Meeting Program in New Orleans, LA (Sun)
 - c. NURETH-16 Report (Merzari / Sun)
 - d. NUTHOS-11 Report (Song/Jeong)
 - e. NURETH-17 Report (Bao-Wen)
 - f. ATH '16 Planning (Sun)
6. Honors and Awards Committee Report (Ninokata)
7. Nominating Committee Report (Aumiller)
8. Division Website Report (Marcum)
9. Membership Committee Report (Aumiller)
10. Old Business (All)
 - a. PC Membership (Sun/Merzari)
 - b. Excellent Reviewer Award (Merzari)
 - c. NURETH-18, 2019 (Muftuoglu)
11. New Business (All)
 - a. Establishment for Undergraduate TH Scholarship (Lee)
 - b. Revisiting the role of THD-CSC (Lee/J. Kim)



THERMAL HYDRAULICS DIVISION NEWSLETTER

Spring 2015

Message from the Chair

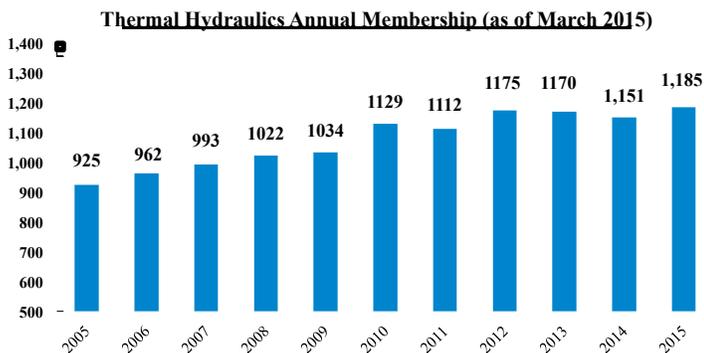


Dear Colleagues,

It has been a great honor to work with you and serve as Chair of the Thermal Hydraulics Division (THD) for the 2014-2015 year, celebrating the 60th

diamond anniversary year of the American Nuclear Society (ANS). It has been a successful year for the Division, with membership continuing to increase and our finances continuing to be strong. In addition, our members have actively participated in THD-sponsored meetings and ANS activities. I would like to thank all of the division members for your continued support.

As illustrated in the THD Annual Membership graph below, the division membership steadily grew over the past ten years considering some fluctuations. We now boast approximately 1185 members (representing about 11% of the total ANS membership) with about 212 student members as of March 2015, thanks to the collective efforts of our division leaders and members.



For the 2014 ANS Winter Meeting in Anaheim, we successfully sponsored 11 THD sessions and 59 technical presentations, including two THD-sponsored panel discussion sessions. In addition, the division sponsored one session “Young Professional Thermal Hydraulics Research Competition” during the meeting. I would like to thank the session organizers and paper reviewers for the successful THD community gathering.

During the 2014 Winter Meeting, we instituted one national award from our division and two divisional awards to publicly recognize the excellent technical contributions of our members. Thanks to Honors and Awards Committee (HAC) members and the HAC chair, Prof. Hisashi Ninokata, for their extra effort and time. On behalf of THD, I congratulate Prof. Jose Reyes and the two Best Paper Award recipients on their achievements (read the 2014 Fall THD Newsletter for detailed recognitions via <http://thd.ans.org>).

For the 2015 ANS Annual Meeting in San Antonio, our division has sponsored six contributed technical sessions at this meeting. The Program Committee (PC) Chair, Prof. Xiaodong Sun, indicated that 42 summary papers have been submitted for the Meeting and 33 have been accepted for the final program. Please see the final meeting program and join us in San Antonio, Texas, to have active interactions with the paper presenters and fellow members.

There are a number of upcoming meetings of interest to our THD community. Of particular interest are NURETH-16 to be held in Chicago, from August 30 to September 4, 2015 and the 2015 ANS Winter Meeting in Washington D. C, November 8 – 12, 2015. It is anticipated that the Chicago meeting will

be one of the most successful participations with a total of 740 full papers submitted to date. I would like to thank the organizers and paper reviewers, notably Prof. Xiaodong Sun and Dr. Elia Merzari, for their tireless efforts in making another successful NURETH meeting. We look forward to your participation and support of the 2015 Chicago meeting.

At the conclusion of the June meeting in San Antonio, my term as Chair will end. On behalf of the Division, it is my pleasure to welcome the newly elected officers of the Division: Prof. DuWayne L. Schuberger, who will be succeeding me as Chair, Prof. Seungjin Kim as Vice-Chair, Dr. Kurshad Muftuoglu as Secretary, and Dr. W. David Pointer as Treasurer. I would also like to welcome the new and re-elected members of the THD Executive Committee (EC): Dr. Philippe M. Bardet, Prof. Xu Cheng, Dr. Jeffrey W. Lane, and Dr. Chul-Hwa Song.

I hope that the knowledge shared through the organizational communication channels and venues provided by the Division has been and will continue to be helpful in making each of you successful. My appreciations to my fellow officers and EC members as well as PC members for their support and contributions in keeping the division active. Finally I would like to thank Dr. David Aumiller, the former Chair, his thoughtful help in transitioning the leadership.

I look forward to seeing you at the San Antonio Meeting.

Si Young Lee
Savannah River National Laboratory
si.lee@srl.doe.gov
2014-2015 THD Chair
ANS Thermal Hydraulics Division

Upcoming THD Conferences

- 2015 ANS Annual Meeting (San Antonio, TX): June 7-11, 2015

- NURETH-16 (Chicago, IL): Aug. 30-Sept. 4, 2015

The Chicago Local Section of the American Nuclear Society (ANS) is pleased to host the 16th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-16) at the Hyatt Regency Chicago from August 30-September 4, 2015.

Chicago is one of America's greatest cities, and is one of the most easily accessible destinations in the U.S. for travelers from around the world due to its central location. Chicago has a proven history of hosting past ANS meetings, including the 2012 Annual Meeting. Attendees will be a short distance from Chicago attractions, such as Navy Pier, architectural boat tours, theatrical and musical entertainment and countless dining and shopping options.

Building on the foundation of past meetings, including the NURETH-15 in Pisa, Italy, NURETH-16 has invited 12 world-class keynote speakers in the field of thermal-hydraulics from around the world to share their research and discuss important issues related to thermal-hydraulics in nuclear reactors. In addition to the keynote lectures, a series of panels will focus on current trends in thermal-hydraulics research, including a "forward looking" panel in the opening plenary.

Over 950 abstracts and 740 full papers have been submitted to NURETH-16, including over 300 papers from young professionals and graduate students. The review process has been recently completed and in order to maintain good quality standards over 1800 reviews have been performed for the full paper phase alone. Authors have been notified of the review decision on May 22nd, 2015.

In addition to the paper sessions, NURETH-16 will feature 6 workshops with a particular focus on uncertainty quantification. The number of seats in these workshops is limited so attendees are encouraged to register early. More information is

available at <http://nureth16.anl.gov>. The registration will open on June 1st 2015.

NURETH-16 will also be a venue for organizations to showcase their expertise in nuclear reactor technology. Several companies have already joined our export program. Several additional opportunities for meeting sponsors to exhibit their products and services the nuclear reactor thermal-hydraulic community are available. More information is available at <http://nureth16.anl.gov/sponsorship/>.

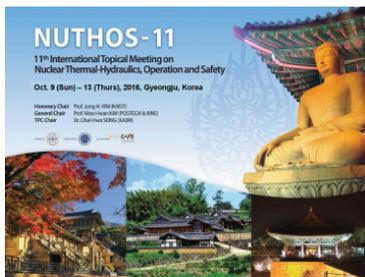
Moreover, several special events are planned. These include a cocktail reception at the Hyatt on Sunday August the 30th, an architectural boat tour on Monday August 31st, a Baseball Game on Tuesday September 1st 2015 and the conference banquet at the Art institute of Chicago on Wednesday September 2nd 2015.

The Art Institute of Chicago is the second-largest art museum in the United States and houses a collection of over 260,000 works of art. The evening will begin with a cocktail reception and gallery viewing, followed by dinner in Griffin Court in the museum's modern wing. The museum is only a short walk along Michigan Avenue from the Hyatt Regency.

Don't miss this opportunity to keep up to speed with the latest development in thermal-hydraulics research, join us in Chicago!

- NUTHOS-11 (Gyeongju, Korea): Oct. 9-13, 2016

NUTHOS-11 is being organized as follows. Additional information is attached at the end of the newsletter:



- Conference Venue: Gyeongju, Korea
- Conference Date: Oct. 9-13, 2016
- Honorary Chair: Prof. Jong H. Kim (KAIST)
- General Chair: Prof. Moo Hwan Kim

- (POSTECH, and KINS)
- TPC Chair: Dr. Chul-Hwa Song (KAERI).

Treasurer's Report

Our division holds two separate accounts: one general and one scholarship/awards account (formerly referred as the *endowment account*). The spending from the general account is not subject to dollar amount limits, as long as the transactions are approved by the executive board, and naturally, in line with division's charter. The scholarship/awards account is subject to spending limits for sustainability reasons. In addition, there are rules on disbursements, depending on how the funds are allocated. For example, distributions from the endowments could have certain limitations. The THD scholarship/awards account was formed using the generous donations made by Korean Nuclear Society, Canadian Nuclear Society, and University of Pisa. According to the HQ accounting, the 2014 year-end account balance was \$39,062. Of this amount, \$20,576 is under temporarily restricted funds, and the rest, \$18,485, is under board-designated assistance funds. The spending limit for 2015 is 9.24%, providing \$3,609 for potential allocation. The general account balance is summarized below:

2014 Division Financial Report

Balance forward from 2013:	\$17,706
2014 Income:	\$4,112
<ul style="list-style-type: none"> • Revenue from 2014 member allocation (through 12/31/2014): • Actual revenue from ATH' 14: 	<ul style="list-style-type: none"> \$2,342 \$1,770
2014 Expenses:	\$5,024
<ul style="list-style-type: none"> • Awards and plaques (budget: \$2,300) • Donation to Scholarship/NEED (budgeted: \$500) 	<ul style="list-style-type: none"> \$2,354 \$500

- Student support (budget: \$2,500): \$2,150
(includes \$500 for HQ-directed support for ANS national meetings, and 3 students for 2014 Annual Meeting, 6 students for Winter Meeting, and 2 students paid from previous period, \$150 each)
- Donation to Scholarship/NEED: \$500
- Other expenses (USPS postage) \$20

Fund Balance 12/31/14 \$16,794

- The 2015 expenses to date are disbursements for \$500 for Student Conference support and another \$500 for HQ-directed travel support to ANS national meetings.

Kurshad Muftuoglu,
kurshad.muftuoglu@ge.com
2014-2015 Treasurer
ANS Thermal Hydraulics Division

Honors and Awards Committee Report

Activities are to be reported in the Fall 2015 THD Newsletter

Hisashi Ninokata
Politecnico di Milano
2014-2015 Honors and Award Committee Chair
ANS Thermal Hydraulics Division
hisashi.ninokata@polimi.it

Program Committee Report

The strong THD presence at the ANS national meetings continues after a very positive 2014 ANS Winter Meeting where a total of 58 summaries were presented. The interest and participation to the technical sessions organized by our division have maintained at a very high level at the upcoming ANS Annual Meeting 2015. Thanks to the support of the

session organizers, contributing authors and panelists, and reviewers, the program committee has put together another strong arrangement of sessions for the meeting.

At the 2015 Annual Meeting in San Antonio, THD is organizing a total of six contributed summary sessions. A total of 42 summaries were submitted, out of which, based on the reviewer recommendations, a total of 33 summaries are expected to be presented at this Annual Meeting. Again, let us take this opportunity to thank the session organizers and reviewers for their wonderful efforts: over 130 reviews were completed for this Annual Meeting. These sessions, in chronological order, are:

Thermal Hydraulics: General – I [Mon. p.m.]
Experimental Thermal Hydraulics [Tues. a.m.]
Thermal Hydraulics: General – II [Tues. p.m.]
Computational Thermal Hydraulics – I [Wed. a.m.]
Computational Thermal Hydraulics – II [Wed. p.m.]
Thermal Hydraulics: General – III [Thurs. a.m.]

The 2015 Winter Meeting will be held in Washington, DC. For that meeting our division is planning to sponsor six summary sessions and one panel session:

19a. Two-Phase Flow
19b. Young Professional Thermal Hydraulics Research Competition
19c. Computational Thermal Hydraulics
19d. Computational Fluid Dynamics (CFD) V&V
19e. Experimental Thermal Hydraulics
19f. Thermal Hydraulics: General
19g. Thermal Hydraulics Education (P)

In addition to these sessions, one more panel session is being planned on policy related issues.

A copy of Call for Papers for this Winter Meeting can be found at http://www.ans.org/meetings/c_1. The website (<http://epsr.ans.org/meeting/?m=145>) is open for summary submission. The published deadline for the submission is June 12, 2015.

The 10th International Topical Meeting on Nuclear Thermal Hydraulics, Operation and Safety (NUTHOS-10) was successfully held December 14-18, 2014 in Okinawa, Japan. Please see the conference website <http://www.nuthos10.org> for details.

The 16th Internal Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-16) will be held in Chicago from August 30–September 4, 2015. A total of 742 full papers were received and the author notifications were sent to the authors on May 22, 2015. The meeting organizers would like to thank all the authors for the contribution and the reviews for the hard work to get the reviews completed for such a large number of papers within a relatively short time period. More details about the conference are available at <http://nureth16.anl.gov/> as well as a report in this newsletter.

In San Antonio, TX next month, the THD Program Committee meeting will be held on Sunday June 7, 2015, starting at 2:30 p.m in room Republic B. Anyone interested in the program committee activities are invited to participate.

Finally, we would like to express our gratitude to all of the colleagues who devote your time to the Division's activities. Thanks to your dedicated efforts, we are able to put together strong programs at many meetings. These meetings remain as the prominent venue for scientific information exchange in the thermal-hydraulics community. As always, we would like to encourage our members to actively participate by attending our meetings, submitting papers/summaries, volunteering to organize sessions, and supporting the peer-review of the papers. We look forward to many more successful years.

Xiaodong Sun
Ohio State University
2014-15 THD Program Committee Chair
Elia Merzari
Argonne National Laboratory
2014-15 THD Program Committee Assistant Chair
PCChair@thd-ans.org

Membership Committee Report

Activities are to be reported in the Fall 2015 THD Newsletter

David Aumiller
Bettis Atomic Power Laboratory
2014-2015 Membership Committee Chair
ANS Thermal Hydraulics Division
david.aumiller@unnpp.gov

Young Professionals Report

The Thermal Hydraulics Divisions is organizing its annual "Young Professional Thermal Hydraulics Research Competition", co-sponsored by the ANS Young Member Group, to be held during the 2015 ANS Winter Meeting. This competition, jointly sponsored by the YMG, has received a sustained stream of summaries in recent years, demonstrating the continued interest in this activity. For more information about the latest edition of this competition, please contact Dr. Dave Aumiller (david.aumiller@unnpp.gov). A call for papers is available on the THD website (<http://thd.ans.org/YPTHRC15.pdf>). The current deadline for submission is June 12th 2015.

The last edition of the competition at the ANS Winter Meeting 2014, featuring seven entries, was won by Dr. Yiqi Yu from Argonne National Laboratory for a presentation and summary on "SFR Duct Wall Temperature Prediction with a Porous Medium Model".

NURETH-16 is also hosting a young professional competition and over 300 full papers have entered into the contest. The winner, based solely on the quality of the paper, will be announced at the meeting. For more information contact Dave Pointer at pointerwd@ornl.gov.

The Young Members Group (YMG) is a division of the American Nuclear Society (ANS). YMG

provides young professionals with opportunities to expand their technical knowledge and network with internationally recognized authorities and industry leaders. Part of YMG's mission is to collaborate with other Divisions and Groups in developing technical and non-technical content of particular interest to young professionals for topical and national meetings (for more information on YMG's mission check <http://ymg.ans.org/about-us/our-mission/>).

All regular ANS members 35 years old or younger, or within 5 years of their last degree are YMG members. Moreover all ANS graduate students are members of the group as well. The next YMG executive committee meeting will be held at ANS Annual Meeting 2015 in San Antonio on June 8th (11:30 AM- 1:00 PM) in room Lone Star B. Please come and join us!

Among the many activities that are currently ongoing with YMG are: the planning for the Young Professionals Congress 2015 (to be held November 8-12 2015 in Washington, DC) and a new webinar series. We are also looking for ways to improve our communication strategy, and for energetic young members to get involved in governance. If you are interested in this opportunity or any activities of YMG contact

Elia Merzari
emerzari@anl.gov

2015 Young Professional Thermal Hydraulics Research Competition, November 8-12, 2015, Washington D.C.

A special session entitled "Young Professional Thermal Hydraulics Research Competition" hosted by the Thermal Hydraulics Division of the American Nuclear Society will be held at the 2015 ANS Winter Meeting in Washington D.C. following a tradition started in 2006. This session received high interests in recent years of ANS Winter Meetings. The professional development session is designed to enhance the technical writing and presentation skills

of young professionals working in the area of Thermal Hydraulics through preparation and presentation of a summary related to the Thermal Hydraulics profession. Accepted summaries and presentations will be critiqued by a panel of judges that will provide constructive feedback. The participants will be evaluated on the originality of research, the overall contributions, the quality of the summary, and the quality of the presentation. A plaque will be awarded to the participant selected by the judging panel that scores the highest in the session.

Participation Criteria: Participants must be less than 36 years old or have less than 5 years of Thermal Hydraulics research or application (YMG membership criteria). While student abstracts will be considered, preference will be given to submissions from recent graduates and professionals with limited experience. This preference is based on the opportunities provided to students to participate in ANS Student Conferences, where similar judging and feedback are available. Additional authors are permitted for an abstract. However, the first author must also make the presentation and meet the participant criteria.

Summary Content and Submission: Summaries are to be submitted to the ANS Winter Meeting 2015 (Session 19b) through the ESPR system (<http://epsr.ans.org/>). The current deadline is June 12th 2015. All summaries are to adhere to the guidelines for Transactions summary preparation as set forth on the ANS web site. For more information: (<http://www.ans.org/pubs/transactions/>). Submitted summary are to put forth recent research in the realm of heat transfer and fluid mechanics involved in the utilization of nuclear energy, including theoretical and experimental research on basic phenomena and application of thermal hydraulic principles to nuclear system design and analysis.

For more information about this session, contact:
David Aumiller (david.aumiller@unnpp.gov)
Wade Marcum (Wade.Marcum@oregonstate.edu)

Website Report

The official website of the ANS Thermal Hydraulics Division is located at <http://thd.ans.org>. The THD committee membership and minutes, conference announcements, newsletters, and awards are all updated as they change throughout each year. The website is meant to provide up-to-date information on the division's activities. Recent announcements include the call for papers for NUTHOS-10 and NURETH-16, respectively.

Moreover, the division continues to maintain an online directory of members who are or have been active in division activities at <http://thd.ans.org/people.html>. To update your information or to be included in this directory, please contact the THD Webmaster.

Wade Marcum
Oregon State University
2014-2015 ANS THD Webmaster
wade.marcum@oregonstate.edu

Division Contact Information

Current Division Officers and Executive Committee members are listed below.

Current Year THD Officers (June 2014 – June 2015)

Division Chair:
Si Young Lee, si.lee@srnl.doe.gov
Vice Chair/Chair-Elect:
DuWayne Schubring, dlschubring@ufl.edu
Secretary:
Seungjin Kim, skim@psu.edu
Treasurer:
Muftuoglu, A. Kurshad, kurshad.muftuoglu@ge.com

Executive Committee Members

Fan-Bill Cheung (2017) fxc4@psu.edu

Jong Kim (2017) jongkim@mail.kaist.ac.kr
Si Young Lee (2015) si.lee@srnl.doe.gov
DuWayne L. Schubring (2015) dlschubring@ufl.edu
Xu Cheng (2015) xu.cheng@kit.edu
Francesco D'Auria (2015)
francesco.dauria@dimnp.unipi.it
Paolo Ferroni (2017) ferronp@westinghouse.com
Takashi Hibiki (2015) hibiki@purdue.edu
Seungjin Kim (2015) sxk86@psu.edu
Kurshad Muftuoglu(2015)
kurshad.muftuoglu@ge.com
Donna P. Guillen (2017) donna.guillen@inl.gov
W. David Pointer (2015) pointerwd@ornl.gov
Chul-Hwa Song (2015) chsong@kaeri.re.kr
Igor A. Bolotnov (2016) igor_bolotnov@ncsu.edu
Lane B. Carasik (2016) lcarasik@tamu.edu
Elia Merzari (2016) emerzari@anl.gov
Michio Murase (2016) murase@inss.co.jp
Donald Todd (2016) donaldtodd@numerical.com
Wade R. Marcum (2017)
wade.marcum@oregonstate.edu
Hans Gougar* hans.Gougar@inl.gov

* *Chair of the ANS Professional Divisions Committee, exofficio member without vote*

Committee Chairs (June 2014– June 2015)

Program Committee:
Xiaodong Sun, sun.200@osu.edu
Honors and Awards Committee:
Hisashi Ninokata, hisashi.ninokata@polimi.it
Nominating Committee:
David Aumiller, David.aumiller@unnpp.gov
Membership Committee:
David Aumiller, David.aumiller@unnpp.gov

The list of contact information is provided by the Nominating Committee. The Nominating Committee is responsible for the nomination of THD members to leadership positions on both the Program and Executive Committees. The THD would like to encourage members interested in becoming more involved to contact one of the officers listed above. In particular, the division is usually in need of volunteers for technical meeting session organizers and paper reviewers.

David Aumiller
Bettis Atomic Power Laboratory
2014-2015 Nominating Committee Chair
ANS Thermal Hydraulics Division
David.aumiller@unnpp.gov

Student Involvement Report

Annual Winter Meeting Poster Sessions

The ANS 2014 Winter Meeting featured the annual student poster session that included several THD posters. Although we originally estimated 5 THD posters, 9 THD posters were presented at the session. The poster session was sponsored and hosted by the Education, Training, and Workforce Development Division and the Alpha Nu Sigma National Honor Society. The list of students who presented posters is below:

Landon Brockmeyer, Texas A&M University
Lane B. Carasik, Texas A&M University
Minghui Chen, Ohio State University
Lambert H. Fick, Texas A&M University
Andrew Franklin, Texas A&M University
Natalie C. Galegar, Texas A&M University
Matthew E. Garza, Texas A&M University
Lakshana R. Huddar University of California, Berkeley
Christopher Morrison, Rensselaer Polytechnic Institute

2015 ANS Student Conference at Texas A&M

The 2015 student conference was held at Texas A&M University (www.ansstudentconference.com) on April 9-11, 2015. The theme of the conference was “Powering Tomorrow Together” and featured a focus on the international growth of nuclear applications and power. A total of 527 students and professionals were in attendance for the student conference with the breakdown of attendees being 417 students and 110 professionals. The conference featured two workshops covering Systems Codes

(RELAP5 and MELCOR) by Dr. Rodolfo Vaghetto of Texas A&M University and Computational Fluid Dynamics by Dr. David Pointer of Oak Ridge National Laboratories. Attendees were able to take a tour of Dr. Yassin Hassan’s Thermal Hydraulics Laboratory in addition to other campus research laboratories.

There were 3 THD related sessions that featured 17 presentations. The presentations covered all aspects of thermal hydraulics including experimental and computational research. Additionally, the Dominion Resources Poster Session featured 8 thermal hydraulics related posters. Finally, the following papers received awards for the best presentations in the THD related tracks. Seth Langford’s summary was award one of six best paper awards which included his paper evaluated against papers in the other tracks and sessions.

Positron Emitting Particle Tracking (PEPT) for Fluid Flow Measurements

Seth Langford, Graduate Award
University of Tennessee, Knoxville

Experimental study toward resolution of GSI-191 during Loss of Coolant Accident Conditions

Jamie Gerard, Undergraduate Award
University of New Mexico

2016 ANS Student Conference to be Held at University of Wisconsin, Madison:

The University of Wisconsin-Madison would like to invite everyone to save the date for the 2016 ANS Student Conference to be held March 31-April 3, 2016. The theme of our conference is *Being a Critical Member of the Nuclear Industry*. To reinforce this theme, the conference events will be focused around four factors, named after the Four-Factor Formula of nuclear engineering: (η) nuclear opportunities, (f) forming our public image, (p) professional development, and (ϵ) entrepreneurship. Each of these factors will be realized through many series of technical sessions, hands on workshops, and panels, each of which individually target one of the four factors. Two such events that will highlight the

thermal hydraulics aspect of nuclear engineering are a tour of the UW Tantalus experiment where a considerable amount of advanced reactor research has occurred and also a Core Thermal Hydraulics V&V panel where key thermal hydraulic methodologies for computer code verification and validation will be presented. Inquiries about the conference can be directed to ANSStudentConference2016@gmail.com or (608) [572-7267](tel:572-7267).

Additionally, the Student Section Committee, the Texas A&M Student Conference Committee, and the University of Wisconsin, Madison Conference planning committee expresses great appreciation to THD for its past, present, and future support of the ANS Student Conferences.

Lane B. Carasik,
Texas A&M University
2014-2015 THD Student News
lcarasik@tamu.edu

Community News

Call for Nominations of the 2015 Technical Achievement Award:

The award was established in 1984 by the Thermal Hydraulics Division (THD) and became an ANS national award in 2006 to recognize outstanding past or current technical achievement. The Technical Achievement Award is the highest award given by the THD. It is normally presented to a member of the THD, however nominees need not be members of THD. Any ANS member is eligible for the Technical Achievement Award. For more information, visit <http://thd.ans.org/Awards/Awards.htm>.

Nomination forms and supporting documents (in Word or Adobe Acrobat) should be emailed to me before the end of June or to the 2015-2016 Honors

and Award Committee Chair, Prof. Brian Woods (woods@engr.orst.edu) before July 15, 2015.

THD H&A Committee Chair for 2014-2015
Hisashi Ninokata (hisashi.ninokata@polimi.it)

Workshop Hosed by B&W and the CAER:

On June 4th and 5th, B&W and the Center for Advanced Engineering and Research (CAER) in Lynchburg, Virginia is hosting a workshop to address TH community needs for large-scale systems testing. B&W recently made the decision to pursue a no-cost handover of the Integrated Systems Test (IST) facility (which resides at the CAER) to the R&D community. The US DOE responded with a request for information (RFI) solicitation appearing in [DE-SOL-0008318](#). The RFI advances the role of the National Scientific User Facility model as a means to promote candidate technologies such as the IST. Next week's workshop will involve an introduction to the IST before transitioning into facilitator-lead sessions addressing topics relevant to DOE's solicitation, including the role of large-scale test facilities to complete current gaps in knowledge and data.

A dial-in number will be provided to those that RSVP for the webinar. Within the announcement below is a link to a video that TH people should enjoy. In addition, our information website should be active by the end of the day today from the link <http://caer-ist.org/>.

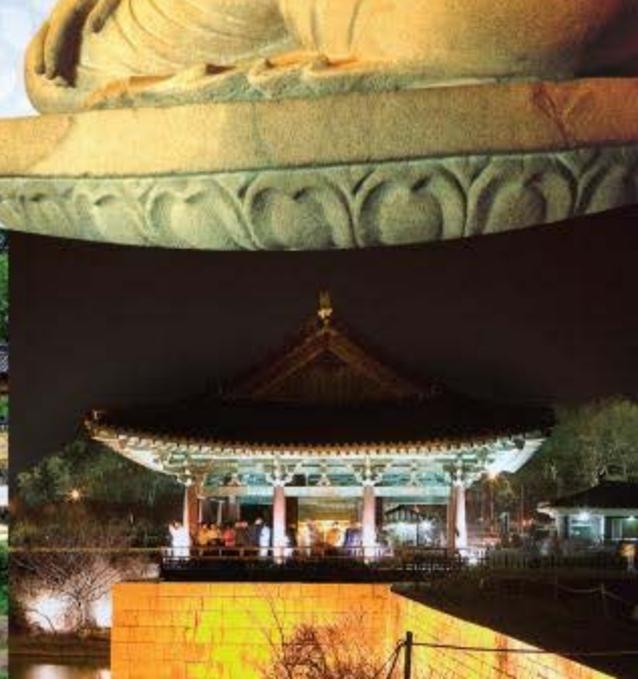
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E-mail: rpmartin@babcock.com
Web: <http://www.babcock.com>

NUTHOS-11

11th International Topical Meeting on
Nuclear Thermal-Hydraulics, Operation and Safety

Oct. 9 (Sun) – 13 (Thurs), 2016, Gyeongju, Korea

Honorary Chair Prof. Jong H. KIM (KAIST)
General Chair Prof. Moo Hwan KIM (POSTECH & KINS)
TPC Chair Dr. Chul-Hwa SONG (KAERI)



Express for International Conferences

Incheon Airport

Seoul Station

43 min.

120 min.

180 min.

Daegu Airport

Gyeongju

70 min.

Busan Station

35 min.

Gimhae Airport

KTX (Express Train)
Incheon Airport : 180 min.
Seoul Station: 120 min.
Busan Station: 35 min.

Airport Limousine
Gimhae Airport: 70 min.
Incheon Airport: 270 min.

HICO

Hi! Corea Convention Center

Premier Hotellike Center

Versatile Conference Rooms
in Various Sizes

Overview

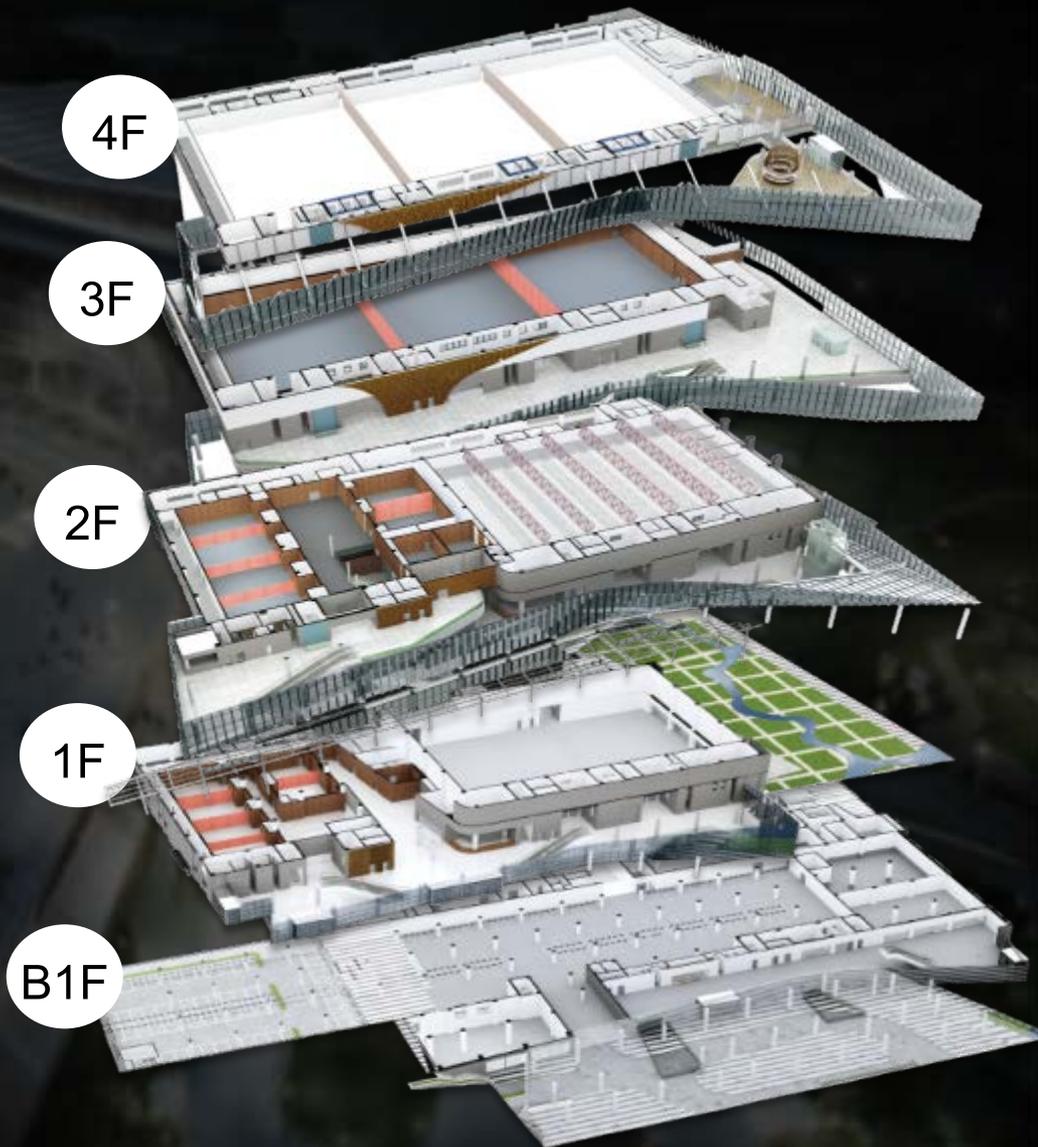
Grounds: 43,364m²

Floor Space: 31,307m²

4 Floors above ground

1 Floor below ground

- 1 Convention Hall: 3,421m²
- 10 Meeting Rooms
- 1 Indoor Exhibition Hall: 2,273m²
- Outdoor Exhibition Space: 4,000m²



Technical Programs

- **Plenary Lectures**
- **Keynote Lectures**
- **Oral Presentations (Including Special Topic Sessions)**
- **Panel Sessions**

Technical Tours

- **Low- & Intermediate-Level Radioactive Waste Disposal Facility near Gyeongju**
- **Shin-Kori 3&4 Units: First Operation of APR1400**



ANS 2015 Annual Meeting, San Antonio, TX

X. Sun and E. Merzari

We have received a total of 42 summaries submitted to the seven proposed summary sessions. Our THD reviewers again did a great job to review these summaries despite a relatively narrow time window in which we had to complete the review.

Reconciled review recommendations for the summaries are as follows: One of these summaries was accepted (A) without further comments; 25 were accepted with revisions (A/R); 13 were rejected unless revised (R/R); and 3 summaries were rejected.

- 1 Accepted (A)
- 25 Accept with Revisions (A/R)
- 13 Reject Unless Revised (R/R)
- 3 Rejected (R)

After another round of rigorous review process for those R/R summaries, a total of 33 summaries made to final program of the conference.

Overall, the review participation was sufficient. All of the papers received adequate review on a timely basis. Many thanks to our dedicated reviewers! The distribution is as follows:

Summaries	# of reviews
19	2 reviews
7	3 reviews
10	4 reviews
3	5 reviews
3	6 reviews
<hr/>	<hr/>
Total	42
	135 reviews

There were 135 review recommendations that needed to be coordinated from 28 reviewers. Reviewer participation was great for this meeting. We had a large number of reviewers who helped with the peer review process! The reviewers' support is much appreciated. Most recent reviewer participations were as follows:

San Antonio	135 reviews from	28 reviewers
Anaheim	212 reviews from	33 reviewers
Reno	80 reviews from	17 reviewers (General meeting)
D.C.	284 reviews from	29 reviewers
Atlanta	137 reviews from	23 reviewers
San Diego	129 reviews from	22 reviewers
Chicago	116 reviews from	17 reviewers
D.C.	179 reviews from	22 reviewers
Hollywood	148 reviews from	14 reviewers
Las Vegas	181 reviews from	20 reviewers
San Diego	102 reviews from	21 reviewers
D.C.	135 reviews from	22 reviewers
Atlanta	191 reviews from	25 reviewers
Reno	73 reviews from	11 reviewers
Anaheim	89 reviews from	19 reviewers

Following individuals contributed to the reviews of the summaries:

Aumiller, David (15)	Liu, Yang (5)	Vaghetto, Rodolfo (3)
Yang, Bao-Wen (12)	Martin, Robert (5)	Yu, Yiqi (3)
Riznic, Jovica (10)	Merzari, Elia (5)	Marcum, Wade (2)
Bolotnov, Igor (8)	Zou, Ling (5)	Adorni, Martina (1)
Revankar, Shripad (7)	Cheung, Fan-Bill (4)	Aydogan, Fatih (1)
Sabharwall, Piyush (7)	Guillen, Donna (4)	Buschman, Francis (1)
Lomperski, Stephen (6)	Sun, Xiaodong (4)	Ferroni, Paolo (1)
Todd, Donald (6)	Arndt, Steven (3)	Thomas, Justin (1)
Hu, Rui (5)	Lee, Si (3)	
Kim, Seungjin (5)	Meholic, Michael (3)	

THD has a total of six summary sessions at this winter meeting. They are:

Monday

Thermal Hydraulics: General – I [Mon. p.m.]

Tuesday

Experimental Thermal Hydraulics [Tues. a.m.]

Thermal Hydraulics: General – II [Tues. p.m.]

Wednesday

Computational Thermal Hydraulics – I [Wed. a.m.]

Computational Thermal Hydraulics – II [Wed. p.m.]

Thursday

Thermal Hydraulics: General – III [Thurs. a.m.]

Session	# of papers	Time Slot	Location	Chairs
General Thermal Hydraulics – I	7	Mon. 1:00 pm	Lone Star C:	X. Sun, D. Aumiller
Experimental Thermal Hydraulics	6	Tues. 8:30 am	Lone Star C	W. Marcum F. Bill Cheung
General Thermal Hydraulics – II	4	Tues. 1:00 pm	Lone Star C	D.P. Guillen R. Martin
Computational Thermal Hydraulics – I	7	Wed. 8:30 am	Lone Star C	B.-W. Yang, R. Hu
Computational Thermal Hydraulics – II	6	Wed. 1:00 pm	Lone Star C	P. Sabharwall S.Y. Lee
General Thermal Hydraulics – III	3	Thur. 8:30 am	Lone Star C	E. Merzari I. Bolotnov
Total	33			

Additional Notes:

- All paper presentations are 25 minutes each.
- Session chairs are to obtain the session sheets from the Speaker/Session Chair Desk and return the filled sheets after the sessions.