

THD Program Committee Meeting Minutes

American Nuclear Society – Thermal Hydraulics Division
Program Committee Meeting
Caesars Palace, Las Vegas, NV
2:30 – 4:30 PM, Sunday, November 6, 2016
Location: Neopolitan 2

Attendees: Steven Arndt (PC Member), Maria Avramova, Fatih Aydogan, Sama Bilbao y Leon (PC Member), Lane Carasik, Fan-Bill Cheung (PC Member), Jared Dooley, Paolo Ferroni (PC Member), Donna Guillen (PC Member), Christopher Hughes, Yong Hoon Jeong (PC Member), John Kelly, Jong Kim (PC Member), Seungjin Kim (PC Member), Travis Knight, Selim Kuran, Si Young Lee (PC Member), Jun Liao, Yang Liu (PC Member), John Luxat (PC Member), Wade Marcum (PC Member), Kellen McCarroll, Elia Merzari (Chair), Kurshad Muftuoglu (PC Member), Hisashi Ninokata (PC Member), Dave Pointer (Secretary), DuWayne Schubring (PC Member), Phil Sharpe, Dillon Shaver, Chul-Hwa Song (PC Member), Xiaodong Sun (PC Member), Cetin Unal, Bao-Wen Yang (PC Member), Ling Zou

Sign-in sheets are included in Appendix A

1. Opening (Merzari)

The meeting was opened by PC Chair Elia Merzari at 2:30 pm on Sunday, November 6, 2016.

2. Approval of Meeting Agenda (All)

The proposed agenda was distributed and reviewed by those in attendance.

MOTION by Prof. Luxat to accept the proposed agenda.

SECONDED by Prof. S. Kim

APPROVED without objection

3. Approval of Minutes (All)

The approval of meeting minutes from the previous two meetings was postponed for later discussion via email.

ACTION ITEM – Dr. Merzari will forward updated minutes to the committee for approval via email before the end of the calendar year.

4. Update on THD Sessions for the 2016 ANS Winter Meeting (Merzari/Bolotnov/Pointer)

a. General Meeting: Submittal Statistics, Reviews and Session Assignments

The 2016 ANS Winter Meeting report, attached as Appendix B, was distributed to those in attendance and summarized by Dr. Merzari. Dr. Merzari thanked those in attendance for their support in soliciting a strong response and in conducting a strong review. Dr. Merzari noted that THD is recognized across ANS for its

strong technical reviews. Only 10 summaries were rejected by ANS as a whole for the 2016 Winter Meeting, and 8 of those were rejected from THD sessions.

Dr. Merzari summarized the 10 sessions planned for the general meeting and offered session organizers an opportunity to comment on their sessions. Prof. Cheung highlighted the session in memoriam of Salomon Levy in which colleagues will remember his life and accomplishments. Prof. Aydogan highlighted the international panel discussing challenges in computational tools for reactor thermal hydraulics. Dr. Ferroni highlighted the Young Professionals Thermal Hydraulic Paper Competition and asked for 5 volunteers to serve as judges.

b. Embedded Topical Meeting 2016 International Topical Meeting on High Temperature Reactor Technology (HTR2016)

The HTR2016 meeting report, attached as Appendix C, was distributed and summarized by Dr. Pointer. He thanked the committee for their support in recruiting submissions and executing the technical reviews. He noted that, as a result of the strong response, Track-6 Thermal-hydraulics, Structural and Multiphysics Analyses is the largest track in the meeting. Dr. Pointer noted that organization of the meeting had generally gone smoothly and that the international committee was generally happy with the outcome. He also noted that 437 attendees, mostly international non-members, had selected the HTR2016 topical as their primary meeting at registration, which is a record for the conference.

Dr. Muftuoglu, Chair of the National Program Committee, noted that the NPC had recognized the record response to THD sessions in the ANS Winter Meeting plus the embedded topical and thanked the committee for their efforts.

Dr. Muftuoglu also noted that it is important to recognize responsibility of being a reviewer regarding protection of unpublished material under review. He suggested that, although reviewer guidance is provided, it might be time to put more rigorous standards for protection of content in place.

Prof. Hassan noted that registration costs continue rise and raised concern that efforts should be made to reduce costs. Dr. Arndt noted that we are challenged to balance the fees associated with ANS revenue generators such as dues and meetings against the costs of ANS programs, which are often seen as membership benefits. Dr. Pointer noted that ANS staff do monitor increases in fees against inflation, and that, in general, fees have not kept pace with inflation through the 80's, 90's and early 2000's.

ACTION ITEM – Dr. Merzari will review reviewer list and manage membership annually.

5. Update on THD Program for the Upcoming 2017 Annual Meeting in San Francisco, CA (Merzari)

a. General meeting: Announced Sessions, Deadlines/Submittal Status

The 2017 ANS Annual Meeting report was distributed and summarized by Dr. Merzari. THD is collecting extended summary submissions in 10 sessions. Dr. Merzari stated that the system is not yet open for review of submissions. The summary submission deadline is January 9. The review is to be completed by February 16.

6. Planning for the Future 2017 Winter Meeting in Washington, DC (Merzari/Bolotnov)

Dr. Muftuoglu noted that Dr. Kenneth Geelhood from PNNL will be the Technical Program Chair for the meeting.

Dr. Merzari solicited session ideas and volunteers to organize from all in attendance.

a. Proposed Sessions and Organizers

- i. Thermal Hydraulics General – Maria Avramova and Lane Carasik
- ii. Computational Thermal Hydraulics– Donna Guillen and Fatih Aydogan
- iii. Experimental TH– Xiaodong Sun and Rodolfo Vaghetto
- iv. Two-Phase Flow Fundamentals – Yang Liu and Dave Pointer
- v. Invited Session – Showcase of Experimental Capabilities in the US – Sama Bilbao y Leon, Paolo Ferroni and Yassin Hassan
- vi. Thermal Hydraulics for Nuclear Space Applications: Panel – Fatih Aydogan and Lane Carasik
- vii. Young Professionals Thermal Hydraulics Paper Competition – Paolo Ferroni and Rui Hu
- viii. Thermal Hydraulic Collaborations in Industry, Academia and Labs: Panel – Elia Merzari, Sama Bilbao y Leon and Phil Sharpe
- ix. Thermal Hydraulics of Advanced Reactors – Hisashi Ninokata and Rodolfo Vaghetto
- x. Thermal Hydraulics in Non-power Applications – Donna Guillen and Si Young Lee

7. NUTHOS-11 Update (Song)

Dr. Song summarized the status of the recently held NUTHOS-11 conference. He reported that NUTHOS-11 was a great success with 344 papers presented. The conference hosted 475 attendees from 34 countries. While the conference saw significant participation from Korea, China and Japan, more than 60 attendees came from Europe. The conference was successful in attracting the young generation of thermal hydraulics engineers, and 30% of the conference attendees were students. In addition to the technical tracks, the conference featured 5 plenary speakers, 9 keynote talks, 3 panel sessions, 2 embedded events and technical tours. Dr. Song also reported that the meeting was financially successful.

8. NURETH-17 Update (Yang)

Prof. Yang summarized the status of the upcoming NURETH-17 conference. The meeting will be held September 3-8, 2017. Abstracts are due November 15, 2016. The meeting will feature technical papers organized in 9 tracks. Additionally, the meeting will include 8 special sessions, 4 symposia, and 2 workshops.

Prof. Yang noted that only 143 abstracts have been received to date. He asked for the committee's help in soliciting submissions. In particular, assistance is needed in soliciting papers for sessions on advanced modeling, multiphysics and multiscale coupling, and non-power applications. Current abstract submissions come from China (70), US (15), Japan (1)

Prof. Yang noted that competition for paper submissions is increasing and that ICONE received over 1300 abstracts from China alone.

9. Embedded Advances in Thermal Hydraulics 2018 Topical Meeting (Merzari)

Dr. Merzari noted that it may be desirable to consider delaying ATH'18 from the 2018 ANS Annual Meeting in Philadelphia, PA to the 2018 ANS Winter Meeting in Orlando, FL. Dr. Merzari noted that the Orlando attraction may be more attractive for international participants and that the 2018 ANS Annual Meeting shortly follows the ICAPP2018 topical meeting in Charlotte, NC, which traditionally has a strong thermal hydraulics track with many participants from the THD division. Furthermore, Dr. Merzari noted that THD has been presented with an opportunity to co-sponsor the ICAPP2018 meeting.

a. ICAPP 2018 co-sponsorship (Knight)

Prof. Knight stated that recent occurrences of the ANS-sponsored International Congress on Advances in Nuclear Power Plants have featured more than 70 papers in the thermal hydraulics track and have relied heavily on THD reviewers to complete the technical review. He noted that ICAPP2017 will be held in Japan and ICAPP2018 will be held in Charlotte, NC. As a consequence of the strong thermal hydraulics program, organizers would like to offer THD an opportunity to co-sponsor the topical meeting.

In discussion, Prof. Bilbao y Leon noted that ICAPP is recognized as a strong international meeting with strong industry participation. Dr. Merzari noted that, if THD chooses to co-sponsor, the THD Program Committee would be supporting three meetings in the spring of 2018 (NUTHOS, ICAPP, and ATH). He suggested that we might move ATH'18 to the 2018 Winter Meeting in Orlando, FL to reduce the Program Committee work load and to avoid competition for papers. Dr. Muftuoglu noted that additional incentives for summer embedded meetings have not yet been implemented, so there would be no penalty associated with moving the embedded topical to the Winter Meeting. Prof. Cheung raised concerns that we are spreading our efforts too thin and suggested that we should concentrate our efforts on the flagship meetings that we have already established. Prof Sun and Dr. Muftuoglu noted that ICAPP and its Thermal Hydraulics track will happen with or without THD co-sponsorship. Prof. Sun further noted that many THD Program Committee members and reviewers will continue to contribute to the meeting regardless of THD co-sponsorship decisions.

Discussion was tabled to the THD Executive Committee Meeting.

b. ATH'18 Preparation for Calendar Placement, Proposal of Slate (Merzari)

Dr. Merzari introduced the following ATH'17 Organizing Committee slate

General Chairs:

Dr. Dominique Bestion, Prof. John Luxat and Prof. Xu Cheng

Technical Program Chairs:

Prof. Sama Bilbao y Leon, Dr. Sofiane Benhamadouche and Dr. Elia Merzari

Assistant Technical Program Chairs:

Prof. Ji Hwan Jeong and Dr. Piyush Sabharwall

*MOTION by Dr. Pointer to approve the organizing committee slate as proposed and present this recommendation to the THD Executive Committee
SECONDED by Prof. S. Kim*

In discussion, Dr. Muftuoglu noted the importance of succession planning and suggested that Prof. Bolotnov should perhaps have a role in the organizing committee. Dr. Merzari clarified that Prof. Bolotnov would be responsible for the regular THD program in the National Meeting in which ATH'18 is embedded.

APPROVED without objection

10. NUTHOS-12 (X. Sun)

Prof. Sun summarized plans for the upcoming NUTHOS-12 conference to be held in the coastal city of Qingdao, China in October 2018. The conference will be hosted by the Chinese Nuclear Society (CNS) and organized by the State Power Investment Corporation (SPIC) Science and Technology Research Institute in Beijing. Qingdao is easily accessible by train or air from Beijing or Shanghai. Two AP1000s are being constructed nearby and two HTGR demonstration reactors are being developed in the region.

Prof. Sun reported that the ANS co-sponsorship request is expected to be submitted before the 2017 ANS Annual Meeting. Papers will likely be due in November 2017.

11. NURETH-18 update (Merzari/Bolotnov)

Dr. Merzari noted that Drs. Lane and Muftuoglu have the action to draft a call for bids to host North America in coordination with selection committee chair. Dr. Merzari suggested that, in order to have ANS calendar placement before NURETH-17, we should release a call for bids by mid-December with bids due no later than mid-February.

12. Old Business

a. Program Committee Membership (Merzari)

Prof. Merzari has completed the action from the previous meeting to review the Program Committee Membership and identify inactive members. Dr. Merzari recommends the following actions to the committee:

Renew all other members whose terms expire in 2016, except Drs. Choe, Oh, Rempe and Tzanos.

Appoint Lane Carasik, Fatih Aydogan and Ling Zou to the Program Committee with terms expiring in 2019.

Appoint Drs. Choe, Rempe and Tzanos to the Program Advisory Committee.

MOTION by Prof. Schubring to recommend to the Executive Committee to renew all Program Committee Members with terms expiring in 2016 except Dr. Tzanos, Dr. Choe, Dr. Oh and Dr. Rempe, to add Lane Carasik, Fatih Aydogan and Ling Zou, and to appoint Drs. Choe, Rempe and Tzanos to the Program Advisory Committee.

SECONDED by Prof. Sun.

APPROVED without objection.

- i. Dr. Merzari completed action to review the membership list and identify in active members
- ii. Prof. Schubring moves to recommend to the EC “to renew everyone with terms expiring in 2016 except Dr. Tzanos, Dr. Choe, and Dr. Rempe. The late Dr. Oh will also be removed from the list of members. *As part of the same motion* Dr. Tzanos, Choe and Rempe are to be moved to advisory committee.” The motion was seconded by X. Sun and approved.
- iii. Prof. Schubring moves to recommend to the EC “to add Lane Carasik, Fatih Aydogan, Ling Zhou to the committee.” The motion was seconded by X. Sun and approved.

13. New Business

No New Business was raised by the committee.

MOTION by Dr. Muftuoglu to adjourn

SECONDED by Prof. Schubring

APPROVED without objection

Appendix A

THD Program Committee Sign-In Sheets

**Thermal Hydraulics Division
Program Committee Meeting
Caesars Palace Hotel
Las Vegas, NV
November 2016**



Only those listed below are voting members of the THD Program Committee	Initial When Present	Email Address
Elia Merzari, Program Chair		
Igor Bolotnov, Assistant Program Chair		
W. David Pointer, Secretary		

Last Name	First Name	End of Appointment (June)	Initial When Present	Email Address
Arndt	Stephen	2016	<i>SAP</i>	
Aumiller	David	2016		
Baglietto	Emilio	2016		
Bajorek	Steven	2016		
Bardet	Philippe	2016		
Bilbao y Leon	Sama	2016	<i>SBL</i>	<i>SBILBAO@VCU.EDU</i>
Carasik	Lane	2017	<i>LBC</i>	<i>LCarasik@tamu.edu</i>
Cheng	Xu	2016		
Cheung F.B.	Fan-Bill	2016	✓	
Choe	Whee	2016		
Collins	Brian	2016		
D'Auria	Francisco	2016		
Ferroni	Paolo	2018	<i>PF</i>	<i>FERRONP@WESTINGHOUSE.COM</i>
Frepoli	Cesar	2016		
Gauntt	Randall	2016		
Guillen	Donna	2018	<i>Donna Guillen</i>	<i>Donna.Guillen@nl.gov</i>
Hassan	Yassin	2016	<i>Yassin Hassan</i>	<i>y-hassan@tamu.edu</i>
Hibiki	Takashi	2016		
Hu	Rui	2016		
Kim	Jong	2016	✓	
Kim	Seungjin	2016	✓	
Lane	Jeffrey	2018		

Article B10.2 - A quorum for the transaction of business at all Division (or TG) meetings shall consist of fifteen (15) qualified voters or twenty (20) percent of the qualified voters.

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Last Name	First Name	End of Appointment (June)	Initial When Present	Email Address
LeCorre	Jean-Marie	2016		
Lee	Si Young	2016 ✓		
Liu	Yang	2016 ✓		
Luxat	John	2016	JL	
Manera	Annalisa	2017		
Marcum	Wade	2018	WM	wade.marcum@oregonstate.edu
Martin	Robert	2016		
Merzari	Elia	2017 ✓		
Muftuoglu	Kurshad	2016	KM	kurshad.muftuoglu@ge.com
Murase	Michio	2017		
Ninokata	Hisashi	2016 ✓		
Podowski	Michael	2016		
Pointer	David	2016 ✓		
Rempe	Joy	2016		
Riznic	Jovica	2016		
Sabharwall	Piyush	2016		
Saha	Pradip	2016		
Schubring	DuWayne	2016	DS	dschubring@utiredv
Song	Chul-Hwa	2016 ✓		
Suh	Kune	2016		
Sun	Xiaodong	2016	XS	sun,200@osu.edu
Todd	Donald	2017		
Vierow	Karen	2016		
Woods	Brian	2016		
Yang	Bao-Wen	2016 ✓		

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November 2016



ANS

Others, please PRINT in

Name	✓ if Committee Member	E-mail
Phil Sharpe		phil.sharpe@inl.gov
Cetin Unal		cun@lanl.gov
Christopher Hughes	✓	crhughes@ufl.edu
Dillon Shaver		dshaver@anl.gov
Selim KURAN		skuran@nvscalepower.com

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Only those listed below are voting members of the THD Program Committee			Initial When Present	Email Address
Elia Merzari, Program Chair			<i>elm</i>	<i>emerzari@anl.gov</i>
Igor Bolotnov, Assistant Program Chair				
W. David Pointer, Secretary			<i>WDP</i>	<i>pointerwd@ornl.gov</i>
Last Name	First Name	End of Appointment (June)	Initial When Present	Email Address
Arndt	Stephen	2016		
Aumiller	David	2016		
Baglietto	Emilio	2016		
Bajorek	Steven	2016		
Bardet	Philippe	2016		
Bilbao y Leon	Sama	2016		
Carasik	Lane	2017		
Cheng	Xu	2016		
Cheung F.B.	Fan-Bill	2016	<i>FB</i>	<i>fxcf@psu.edu</i>
Choe	Whee	2016		
Collins	Brian	2016		
D'Auria	Francisco	2016		
Ferroni	Paulo	2018		
Frepoli	Cesar	2016		
Gauntt	Randall	2016		
Guillen	Donna	2018	<i>Guillen</i>	<i>Donna.Guillen@inl.gov</i>
Hassan	Yassin	2016		
Hibiki	Takashi	2016		
Hu	Rui	2016		
Kim	Jong	2016	<i>JHK</i>	<i>kimj@kaist.ac.kr</i>
Kim	Seungjin	2016	<i>Sh</i>	<i>sxk86@psu.edu</i>
Lane	Jeffrey	2018		

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Last Name	First Name	End of Appointment (June)	Initial When Present	Email Address
LeCorre	Jean-Marie	2016		
Lee	Si Young	2016	SYJ	si.lee@srnl.doe.gov
Liu	Yang	2016	YL	lu130@vt.edu
Luxat	John	2016		
Manera	Annalisa	2017		
Marcum	Wade	2018	Wade	wademarcum@oregonstate.edu
Martin	Robert	2016		
Merzari	Elia	2017		
Muftuoglu	Kurshad	2016		
Murase	Michio	2017		
Ninokata	Hisashi	2016	Hisashi Ninokata	hisashi.ninokata@polimi.it
Podowski	Michael	2016		
Pointer	David	2016		
Rempe	Joy	2016		
Riznic	Jovica	2016		
Sabharwall	Piyush	2016		
Saha	Pradip	2016		
Schubring	DuWayne	2016		
Song	Chul-Hwa	2016	CH	chsong@kaeri.re.kr
Suh	Kune	2016		
Sun	Xiaodong	2016		
Todd	Donald	2017		
Vierow	Karen	2016		
Woods	Brian	2016	Brian Woods	brian.woods@oregonstate.edu
Yang	Bao-Wen	2016	Bao-Wen Yang	bwy@mail.xjtu.edu.cn

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Others, please PRINT in

Name	✓ if Committee Member	E-mail
Fatih Aydogan	✓	fatih@uidaho.edu
John Kelly		john.kelly@nuclear.energy.gov
Jun Lia		LIAOJ@Westinghouse.com
MARIA AVRAMOVA	✓	mnavramo@ncsu.edu
Ling Zou		Ling.Zou@inl.gov
Kellen McCarroll		mckellen@umich.edu
Yong Hoon Jeong	✓	jeongyh@kaist.ac.kr
Jared Dooley		jfd5160@psu.edu

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Appendix B

2016 ANS Winter Meeting Report

ANS 2017 Annual Meeting, San Francisco, CA

E. Merzari and I. Bolotnov

The 2017 Annual Meeting will be held June 11-15, 2017 in San Francisco, CA at Hyatt Regency. The call for papers for THD was approved last June by the PC. THD is soliciting papers for 10 sessions. There is a strong focus in Multiphysics simulation.

The sessions are:

- 19a. Current Verification and Validation Efforts of Multiphysics Packages [co-sponsored with MCD] (T. Pandya, Y. Hassan)
- 19b. Advances and Challenges in Thermal-Hydraulic Feedback Modeling in CASL (M. Avramova, A. Manera)
- 19c. Multi-Physics Multi-Scale Modeling and Simulation (A. Manera, E. Merzari)
- 19d. Advances in Severe Accidents Modeling (J. Luxat, R. Gauntt)
- 19e. Advancements in Thermal-Hydraulic System Scaling Techniques (C. Frepoli, K. Muftuoglu)
- 19f. Thermal-Hydraulics Development and Challenges in Fluoride Salt-Cooled High-Temperature Reactors (P. Sab, X. Sun) *Piyush Sabarwal*
- 19g. Two Phase Flow and Heat Transfer Fundamentals (S. Kim, D. Shaver)
- 19h. Experimental Thermal-Hydraulics (B. Yang, P. Sab)
- 19i. Thermal-Hydraulics: General (A. Manera, F. Aydogan)
- 19j. Computational Thermal-Hydraulics (I. Bolotnov, D. Schubring)

The submission website is open at:

<http://epsr.ans.org/meeting/?m=148>

Submission:

September 28, 2016, 12:00am –
January 9, 2017, 11:59pm

Review:

November 1, 2016, 12:00am –
January 16, 2017, 11:59

We encourage all PC members to solicit papers to ensure this meeting is a success.

Two-Phase Flows—I	7	Tue. 1:00 pm	Octavius 14	B. Yang, S. Kim
Experimental Thermal Hydraulics—I	9	Wed. 8:00 am	Neopolitan 2	W. Marcum, S. Y. Lee
Large Eddy Simulation and Direct Numerical Simulation	6	Wed. 8:00 am	Octavius 15&16	Aleks Obabko, J. Fang
Subchannel Thermal-Hydraulic Analysis—I	8	Wed. 8:00 am	Octavius 14	H. Ninokata, F. Buschman
Uncertainty, Scaling and Global Sensitivity Methods in Thermal Hydraulics	7	Wed. 1:00 pm	Octavius 14	R. P. Martin, C. Frepoli
Young Professional Thermal-Hydraulics Research Competition—I	7	Wed. 1:00 pm	Octavius 15&16	P. Ferroni, D. Pointer
Two-Phase Flows—II	3	Wed. 4:30 pm	Octavius 14	X. Sun, J. Feng
Young Professional Thermal-Hydraulics Research Competition—II	2	Wed. 4:30 pm	Octavius 15&16	V. Petrov, (D. Pointer ?)
Experimental Thermal Hydraulics—II	3	Thu. 8:00 am	Neopolitan 2	R. Vaghetto, C. Gerardi
General Thermal Hydraulics—II	5	Thu. 8:00 am	Octavius 15&16	E. Merzari, L. Carasik
Subchannel Thermal-Hydraulic Analysis—II	4	Thu. 8:00 am	Octavius 14	M. Avramova, R. Salko
Thermal-Hydraulics of Severe Accidents	3	Thu. 9:20 am	Octavius 14	J. Luxat, Haihua Zhao
Total	92			

Additional Note:

- All paper presentations are 25 minutes each.

Computational Thermal Hydraulics [Mon. 1:00 pm]
 In Memory of Salomon Levy on His Technical Contributions to the Advancements of Thermal Hydraulics–Panel [Mon. 1:00 pm]
 Technical Achievement Award Lecture [Mon. 3:35 pm]

Tuesday

Challenges in Computational Tools for Reactor Thermal Hydraulics–Panel [Tues. 8:00 am]
 Toward a Longer-Life Core: Thermal-Hydraulic Simulations and Experiments of Deformed Fuel Assemblies [Tues. 8:00 am]
 General Thermal Hydraulics—I [Tues. 1:00 pm]
 The Nuclear Energy Advanced Modeling and Simulation Program–Panel [Tues. 1:00 pm]
 Severe Accident Modeling and Experiments for Advanced Reactor Safety [Tues. 1:00 pm]
 Two-Phase Flows—I [Tues. 1:00 pm]

Wednesday

Experimental Thermal Hydraulics—I [Wed. 8:00 am]
 Large Eddy Simulation and Direct Numerical Simulation [Wed. 8:00 am]
 Subchannel Thermal-Hydraulic Analysis—I [Wed. 8:00 am]
 Uncertainty, Scaling and Global Sensitivity Methods in Thermal Hydraulics [Wed. 1:00 pm]
 Young Professional Thermal-Hydraulics Research Competition—I [Wed. 1:00 pm]
 Two-Phase Flows—II [Wed. 4:30 pm]
 Young Professional Thermal-Hydraulics Research Competition—II [Wed. 4:30 pm]

Thursday

Experimental Thermal Hydraulics—II [Thurs. 8:00 am]
 General Thermal Hydraulics—II [Thurs. 8:00 am]
 Subchannel Thermal-Hydraulic Analysis—II [Thurs. 8:00 am]
 Thermal-Hydraulics of Severe Accidents [Thurs. 9:20 am]

Session	# of papers	Time Slot	Location	Chairs
Computational Thermal Hydraulics In Memory of Salomon Levy on His Technical Contributions to the Advancements of Thermal Hydraulics–Panel	8	Mon. 1:00 pm	Octavius 14	L. Zou, D. Guillen
Technical Achievement Award Lecture	-	Mon. 1:00 pm	Octavius 15&16	F. B. Cheung, Y. Hassan
Challenges in Computational Tools for Reactor Thermal Hydraulics– Panel	-	Mon. 3:35 pm	Octavius 15&16	X. Sun, S. Kim
Toward a Longer-Life Core: Thermal-Hydraulic Simulations and Experiments of Deformed Fuel Assemblies	7	Tue. 8:00 am	Octavius 15&16	F. Aydogan, J. Liao
General Thermal Hydraulics—I	7	Tue. 1:00 pm	Octavius 15&16	B. Mays, B, Jackson
The Nuclear Energy Advanced Modeling and Simulation Program– Panel	-	Tue. 1:00 pm	Octavius 7&8	K. Muftuoglu, S. Kuran
Severe Accident Modeling and Experiments for Advanced Reactor Safety	6	Tue. 1:00 pm	Neopolitan 2	R.S. Johnson, D. Funk Adrian Tentner, H.S. Kang

S. Lomperski	8
J. Riznic	8
S. Benhamadouche	7
W. Marcum	6
A. Manera	6
L. Carasik	6
J. Feng	6
S. Kim	5
C. Brown	5
J. Watson	5
K. Muftuoglu	5
M. El-Genk	4
F. Aydogan	4
R. Hu	4
H. Doolaard	4
P. Sabharwall	4
R. P. Martin	4
N. Merigoux	4
S. Shi	3
Q. Lv	3
H. Ninokata	3
C. Gerardi	3
S. Y. Lee	2
D. Shaver	2
B. Yang	2
L. Zou	2
F. Roelofs	2
J. Fang	2
D. Guillen	2
D. Schubring	1
J. Thomas	1
S. Mimouni	1
A. Tentner	1
S. Arndt	1
L. Fick	1
Total	337

THD has a total of twenty (20) sessions including sixteen (16) paper sessions at this Winter Meeting. They are:

Monday

	Summaries	# of reviews
	40	2
	34	3
	28	4
	6	5
	1	6
	1	7
Total	110	337

There were 337 review recommendations that needed to be coordinated from 45 reviewers. Reviewer participation was great for this meeting. We had a good number of reviewers who helped with the peer review process! The reviewers' support is much appreciated. We note a significant and welcome expansion of the reviewer pool. Most recent reviewer participations were as follows:

Las Vegas	337 reviews from	45 reviewers
New Orleans	87 reviews from	20 reviewers (General meeting)
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

The following individuals contributed to the reviews of the summaries:

<u>Reviewer</u>	<u># of summaries reviewed</u>
H. Chang	57
D. Aumiller	28
E. Merzari	24
X. Sun	21
F. Buschman	18
I. Bolotnov	14
S. Kuran	13
R. Vaghetto	12
P. Ferroni	12
M. Chen	11

ANS 2016 Winter Meeting, Las Vegas, NV

E. Merzari and I. Bolotnov

A total of 110 summaries were submitted to the proposed General Thermal Hydraulics session at the ANS 2016 Winter Meeting. Our THD reviewers again did a phenomenal job to review these summaries despite a relatively narrow time window in which we had to complete the review. Despite the huge influx of papers our division submitted the session slate in time, meeting the deadline. THD will host more papers and sessions than any other division at this winter meeting.

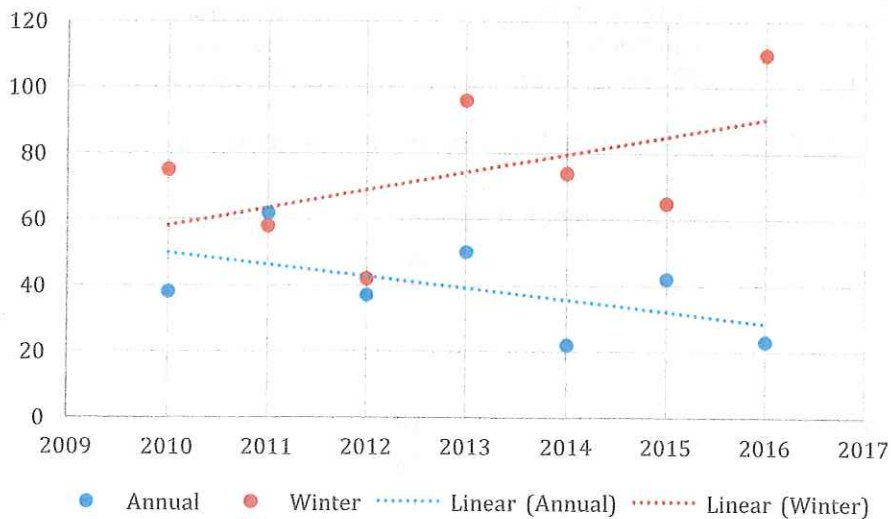
Reconciled review recommendations for the summaries are as follows:

	3	Accept
	76	Accept with Revision (A/R)
	23	Reject Unless Revised (R/R)
	8	Reject
Total	110	

After another round of rigorous review process for the revised R/R summaries, a total of 92 summaries are included in the sixteen (16) THD summary sessions at this conference. There will be no poster session at this meeting.

We note a strong upward trend for the winter meeting submissions. The annual meeting has a downward trend, but it has suffered from the introduction of ATH. Accounting for ATH leads to a positive upward trend.

Summaries submitted for each meeting in the last 7 years.



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:

New members:

L. Carasik (2019) ex-officio
F. Aydogan (2019) ex-officio
L. Zou (2019)

Renewal of the class of 2016:

Arndt, S. (2016)	Aumiller, D. (2016)	Baglietto, E. (2016)
Bajorek, S. (2016)	Bardet, P. (2016)	Bilbao y Leon, S. (2016)
Cheung F.B. (2016)	Carasik, L. (2017)	Chang, H. (2016)
Hassan, Y.A. (2016)	Choe, W. (2016)	Cheng, X. (2016)
Kim, J.H. (2016)	Hibiki, H. (2016)	Hu, R. (2016)
LeCorre, J-M. (2016)	Kim, S. (2016)	Oh, C. (2016)
Luxat, J. (2016)	Lee, S.Y. (2016)	Rempø, J. (2016)
Martin, R. (2016)	Muftuoglu, K. (2016)	Sabharwall, P. (2016)
Lee, S.Y. (2016)	Ninokata, H. (2016)	
Podowski, M. (2016)	Pointer, W.D. (2016)	
Revankar, S.T. (2016)	Riznic, J. (2016)	
Saha, P. (2016)	Schubring, DW. (2016)	
Suh, K.Y. (2016)	Sun, X. (2016)	
Woods, B. (2016)	Vierow, K. (2016)	
Tzenos, C. (2016)	Song C.H. (2016)	

Appendix C

HTR2016 Meeting Report

2016 International Topical Meeting on High Temperature Reactor Technology (HTR2016)

D. Petti, with M. Harding, D. Pointer and F. Shahrokhi

134 full papers have been accepted for presentation at the 2016 International Topical Meeting on High Temperature Reactor Technology (HTR2016). Papers are divided across 41 sessions in 8 technical tracks. Papers are high quality and have undergone a rigorous technical review by the team of HTR2016 reviewers. 200 abstracts were initially received by the program committee.

Technical Tracks:

Track-1: National Research Programs and Industrial Projects (5 papers)

Track-2: Industrial Applications and Markets (8 papers)

Track-3: Fuel and Waste (24 papers)

Track-4: Materials and Components (20 papers)

Track-5: Reactor Physics Analysis (21 papers)

Track-6: Thermal-hydraulics, Structural and Multiphysics Analyses (30 papers)

Track-7: Development, Design and Engineering (14 papers)

Track-8: Safety and Licensing (11 papers)

The technical program committee worked with approximately 60 reviewers to complete a minimum of two technical reviews for each paper. Of the full papers submitted reviewers recommended the following distribution:

37 Accepted (A)

92 Accept with Revisions (A/R)

5 Reject Unless Revised (R/R)

0 Reject (R)

Sessions are organized into 4 parallel rooms on Tuesday, Wednesday and Thursday, with sessions starting at 8:00 am, 9:50 am, 1:00 pm and 2:50 pm. All paper presentations are 25 minutes including questions and discussion. Additionally, an Opening Plenary session will be held on Monday afternoon at 1:00 pm in the Neopolitan 1 room. Speakers include:

- John Kotek (Acting Assistant Secretary, Office of Nuclear Energy, DOE)
- Dr. Kam Ghaffarian, Founder and CEO (X-Energy)
- Prof. Grzegorz Wrochna (Director HTGR, Poland)
- Dr. Minwhan Kim (Director HTGR Program, KAERI)
- Dr. Kazuhiko Kunitomi (Director General HTGR Hydrogen and Heat Application Research Center, JAEA)
- Prof. Zhang Zuoyi (Director of INET)
- Chris Hamilton (Executive Director, NGNP Industry Alliance)