

## Executive Committee Meeting Minutes

American Nuclear Society – Thermal Hydraulics Division  
Executive Committee Meeting  
Hyatt Regency San Francisco, San Francisco, CA  
4:30 – 6:00 PM, Sunday, June 11, 2017  
Location: Pacific I

### Attendees:

Fatih Aydogan (EC Member), Philippe Bardet (EC Member), Igor Bolotnov, Lane Carasik (EC Member), Fan-Bill Cheung (EC Member), Mason Childs, Jun Fang, Nolen Goth, Yong Hoon Jeong, Jong Kim (EC Member), Si Young Lee, John Luxat (EC Member), Mateusz Marciniak, Wade Marcum (EC Member), Elia Merzari (EC Member), Kurshad Muftuoglu (Vice Chair), Thien Nguyen, Hisashi Ninokata (EC Member), Dave Pointer (Secretary), Brett Rampal, Piyush Sabharwal (EC Member), Fatih Sinan Sarikurt, Dillon Shaver, Sandra Sloan, Chul-Hwa Song (Treasurer), Xiaodong Sun, Rodolfo Vaghetto, Bao-wen Yang (EC Member)

### Proxies:

Xu Cheng assigned to Xiadong Sun  
Donna Guillen assigned to Kurshad Muftuoglu  
Seungjin Kim assigned to Kurshad Muftuoglu  
DuWayne Schubring assigned to Kurshad Muftuoglu

Sign-in sheets are included in Attachment B.

### 1. Opening (Muftuoglu)

Acting on behalf of the Chair, Dr. Kurshad Muftuoglu, 2016-2017 Thermal Hydraulics Division Vice Chair, opened the Annual Meeting of the American Nuclear Society Thermal Hydraulics Division Executive Committee at 16:30 on Sunday, June 11, 2017. Quorum was established with 14 voting members present. Attendees held 4 additional proxies assigned by email notification to the Chair and Secretary.

Dr. Muftuoglu expressed the regrets of Prof. Seungjin Kim, 2016-2017 Thermal Hydraulics Division Chair, that he was unable to attend the meeting.

### 2. Approval of Meeting Agenda (All)

The proposed agenda, shown as attachment B, was distributed and reviewed by those in attendance. One additional item, the discussion of a request from the Young Members Group for support of the ANS Young Professionals Congress, was proposed by the Dr. Pointer to be inserted as item 5, with following items renumbered.

*MOTION by Prof. Yang to approve the agenda as amended*  
*SECONDED by Prof. Marcum*  
*APPROVED without objection*

3. Approval of Minutes from 2016 ANS Winter Meeting (All)

Draft meeting minutes for the THD Executive Committee Meeting at the 2016 ANS Winter Meeting were distributed by Dr. Pointer for review by those in attendance. One correction was noted. Discussion Item 6b was incorrectly attributed to Dr. Lane rather than Mr. Carasik.

*MOTION by Prof. Sun (proxy for Dr. Cheng) to approve the agenda as amended  
SECONDED by Dr. Merzari  
APPROVED without objection*

4. Visitors from Student Conferences

Visitors representing the 2017 ANS Student Conference that was hosted by the University of Pittsburgh presented a summary of the conference and thanked the Thermal Hydraulics Division for its support. The conference hosted more than 400 students and 75 professionals.

Visitors representing the 2018 ANS Student Conference to be hosted by the University of Florida presented an overview of the conference and asked for the support of THD through both financial contributions and active participation. Conference details can be found at <http://www.ansstudentconference2018.com>.

5. Request for Young Professionals Congress Support (Pointer)

Mr. Brett Rampal, representing the ANS Young Members Group and the organizing committee of the Young Professionals Congress, introduced plans for the 2017 Young Professionals Congress. The meeting will be held on October 28, 2017, the Saturday before the 2017 ANS Winter Meeting. The meeting is co-sponsored by the ANS Young Members Group and NA-YGN. Mr. Rampal requested that THD support the networking luncheon event by arranging for representatives to attend the session and answer questions about becoming more actively engaged in the activities of the Division. Drs. Merzari, Pointer and Sabharwal and Mr. Carasik volunteered to represent THD.

*ACTION ITEM – Mr. Carasik, Dr. Merzari, Dr. Pointer, Dr. Sabharwal*

6. Action Items from 2016 Winter Meeting

a. Finalize 2015-2016 Meeting Minutes (Muftuoglu)

Delinquent minutes with markup were finalized following the 2016 ANS Winter Meeting. They will be formatted and posted to the website.

b. Establish THD Reviewer Award (Merzari/Sun)

COMPLETED. Drs. Merzari and Sun reported that the action is complete and that the first THD Reviewer Award will be given at the 2017 Annual Meeting.

c. Investigate Slide Library (Muftuoglu/Aumiller/Lane)

Dr. Muftuoglu reported that he has consulted with ANS staff regarding best options for establishment of a repository. Desired functionality has not yet been activated within ANS Collaborate. Action remains open.

*ACTION ITEM – Dr. Muftuoglu will establish the ANS Collaborate Repository and report its availability to the EC.*

d. ANS Collaborate (Pointer)

Dr. Pointer reported that no action has yet been taken to begin to populate ANS Collaborate. Action item remains open.

*ACTION ITEM – Dr. Pointer will obtain administrative rights and begin to populate the THD Collaborate site by the end of the calendar year.*

e. Scholarships (Pointer)

Dr. Pointer reported that the Scholarship Policy and Coordination Committee no longer has a policy requiring the endowment of a scholarship with a minimum funding level. However, the Scholarship Policy and Coordination Committee Chair, Prof. James Baciak unofficially recommends that \$40,000 should be invested to support an undergraduate scholarship and that \$60,000 should be invested to support a graduate scholarship.

*ACTION ITEM – Dr. Muftuoglu will include an item for further discussion in the agenda for the 2017 Winter Meeting.*

f. Develop criteria for NURETH fellows and identify previous recipients (Cheung)

Prof. Cheung reported that criteria have been reviewed and approved by electronic vote of the Executive Committee. The action is complete.

g. Post ANS Grand Challenges to ANS Collaborate (Muftuoglu/Kim)

Dr. Muftuoglu reported that Prof. S. Kim posted the Grand Challenges document to ANS Collaborate as planned. The action is complete.

h. Student Travel Reimbursements from the 2016 ANS Winter Meeting (Song)

Dr. Song reported that 10 recipients were selected by random drawing out of more than 20 applicants from the 2016 ANS Winter Meeting and the HTR2016 embedded topical meeting. The action is complete

i. Establish Ad Hoc Finance Committee (Muftuoglu/Kim)

The ad hoc finance committee will consist of the Treasurer, Secretary, Vice Chair and Chair. The action is complete

7. Report from Professional Divisions Workshop (Kim)

Dr. Muftuoglu reported that Prof. S. Kim attended the Professional Divisions Workshop on Saturday, June 10.

At the workshop, information about the role and function of ANS Local Sections was presented. Professional Divisions were encouraged to actively support the activities and programs of the ANS Local Sections.

A presentation was also provided on the process for the development of ANS standards and of the function of the Standards Committee. Divisions are encouraged to actively support the development and maintenance of ANS standards.

No new actions resulted from the workshop.

8. Report from President's Meeting with Division Chairs (Pointer/Kim)

Dr. Pointer reported that it was announced at the meeting that ANS journal publications are moving to Taylor & Francis. Moving to an external publisher will result in better distribution and indexing, and better access to 10000 libraries. The financial arrangement with the new publisher was reported to be favorable in comparison to self-publishing.

The response to the Grand Challenges concept exceeded expectations of the ANS Executive Committee. All Professional Divisions and Technical Groups participated. Nine Grand Challenges were selected from the submissions and will be announced on June 12 at the President's Special Session.

It was also reported that ANS is working to hire a fulltime professional fundraiser to better support fundraising activities for the Center for Nuclear Science and Technology Information and the proposed development of middle and high school standard curricula for nuclear science and technology.

Finally, the candidates for ANS President-Elect in the next election cycle should come from the Utility sector. Nominations are being sought by the nominating committee.

9. Treasurer's Report (Song)

Dr. Song reviewed the current financial data as presented in the June 2017 Newsletter. Dr. Song noted that Prof. Nam Dinh donated his \$1000 prize as a recipient of the Technical Achievement Award to the division to be applied at the direction of the Executive Committee. Dr. Song also reported that a \$5000 donation from the profits of NUTHOS11 was received from the Korean Nuclear Society.

Dr. Song circulated the proposed budget for the 2017 calendar year for which Executive Committee approval had been previously deferred.

*MOTION by Dr. Merzari to approve the budget as presented  
SECONDED by Prof. Sun as proxy for Prof. Cheng  
APPROVED without objection*

## 10. Program Committee Report

### a. 2017 ANS Annual Meeting Program in San Francisco, CA (Merzari)

Dr. Merzari referred the EC to the Program Committee Report since all were present for the Program Committee Meeting. Dr. Merzari noted that the THD Excellence in Review Award will be presented following the Monday afternoon technical session.

### b. NURETH-17 Report (Yang)

NURETH-17 will be held September 3-8 in Xian, China. Prof. Yang reported that the conference has received more than 1000 abstracts and will publish more than 600 papers. Three technical tours are planned on September 9 near major airports as stopovers for the convenience of those travelling. Prof. Yang highlighted the strong international participation based on paper submissions and noted that the registration web site includes a unique feature to enable international participants to obtain invitation letters before registration fees are paid.

### c. NUTHOS-12 Report (Merzari)

EC Members were referred to the Program Committee Report since all were present for the Program Committee Meeting

### d. Motions from the PC Meeting (Merzari)

Members of the EC were reminded by Dr. Merzari that motions presented by the Program Committee, as a standing committee, do not require a second.

#### i. Approval of Program Committee Membership

*MOTION by Program Committee to reappoint Drs. Murase and Todd and to appoint Dr. Shaver to the Program Committee.  
APPROVED without objection*

### e. NURETH-18 Planning (Merzari)

Dr. Luxat reported that two strong proposals were received from the Eastern Washington Section, proposing to host the meeting in Portland, OR, and the Oak Ridge/Knoxville Section, proposing to host the meeting in Nashville, TN. The Conference Selection Committee recommended that NURETH-18 award the conference to the Eastern Washington Section. The recommendation was approved by the Executive Committee by electronic vote prior to the meeting.

Dr. Pointer, on behalf of the Oak Ridge/Knoxville Section, recommended that the program committee should develop a table of past participation indicating both attendance and number of papers presented to aid communications and

requests for quotes from potential host hotels in the preparation of future proposals. Dr. Merzari accepted this action.

*ACTION ITEM – Dr. Merzari will develop a table of participation statistics for past NURETH conferences for inclusion in future calls for proposals.*

#### 11. Membership Committee Report

Muftuoglu

Dr. Muftuoglu briefly reviewed the current membership status as reported in the November 2016 Newsletter, attached as Appendix C.

#### 12. Division Website Report (Shaver)

Dr. Shaver reported that the website has been updated to include all recovered Best Paper Award data

*ACTION ITEM – Dr. Shaver will update Program Committee membership roster as approved at this meeting.*

*ACTION ITEM – Dr. Shaver will create a section of the website for the Excellence in Review Award*

*ACTION ITEM – All regular meeting participants should confirm that contact information provided on the website is correct.*

#### 13. Honors and Awards Committee Report (Sun)

Prof. Sun reminded the Executive Committee that the NURETH Fellow award was created to recognize scholars who have made significant contributions to the field. Prof. Sun reported that the Honors and Awards Committee reviewed nominations and unanimously approved 3 NURETH Fellow honorees for 2017: Dr. Dominique Bestion, Prof. Francesco D'Auria, and Prof. Nam Dinh.

Prof. Sun also reminded the Executive Committee that candidates for the Excellence in Review Award may be nominated by the Technical Program Chair of the Division or any topical meeting sponsored by the Division. For 2017, two nominees have been unanimously approved by the Honors and Awards Committee: Dr. David Aumiller (Award) and Dr. Paulo Ferroni (Honorable Mention)

Prof. Sun noted that Dr. Aumiller will serve as the next chair of the committee.

The Executive Committee discussed the merits of reinstating the service award to recognize sustained member contributions to the health and success of THD and agreed to consider the reinstatement of the award.

*ACTION ITEM – Dr. Aumiller is asked to prepare a proposal to re-establish the service award.*

14. Nominating Committee Report (Muftuoglu/Schubring)

Dr. Muftuoglu referred the Nominating Committee Report in the June 2017 Newsletter.

15. New Business

a. Student Member of THD Executive Committee (Carasik)

Mr. Carasik requested that Nominating Committee consider nomination of a student member as an Executive Committee candidate for the 2018 election because he will be graduating before the election.

The Executive Committee meeting was adjourned at 6:05 pm

*MOTION by Dr. Merzari to adjourn*

*SECONDED by Prof. Marcum*

*APPROVED without objection*

Attachment A  
DRAFT AGENDA

**PROPOSED AGENDA**

American Nuclear Society – Thermal Hydraulics Division  
Executive Committee Meeting  
Hyatt Regency, San Francisco, CA  
4:30 – 6:00 PM, Sunday, June 11, 2017  
Location: Pacific 1

1. Opening Muftuoglu
2. Approval of Meeting Agenda Muftuoglu
3. Approval of Minutes from 2016 ANS Winter Meeting Pointer/Muftuoglu
4. Visitors from Student Conferences
5. Action Items from 2016 Winter Meeting
  - a. Finalize 2015-2016 Meeting Minutes Muftuoglu
  - b. THD Reviewer Award Merzari/ Sun
  - c. Establish ANS Collaborate Repository as Slide Library Muftuoglu
  - d. ANS Collaborate Pointer
  - e. Scholarships Pointer
  - f. Develop criteria for NURETH fellows. Identify previous recipients Cheung
  - g. Post ANS Grand Challenge Ideas to ANS Collaborate Muftuoglu/Kim
  - h. Student Travel Reimbursements for 2016 ANS Winter Meeting Song
  - i. Establish Ad Hoc Finance Committee Muftuoglu/Kim
6. Report from Professional Divisions Workshop Muftuoglu/Kim
7. Report from President's Meeting with Division Chairs Pointer/Kim
8. Treasurer's Report Song
9. Program Committee Report
  - a. 2017 ANS Annual Meeting Program in San Francisco, CA Merzari
  - b. NURETH-17 Report Yang
  - c. NUTHOS-12 Report Merzari
  - d. Motions from the PC Meeting Merzari
  - e. NURETH-18 Host Selection Merzari
10. Membership Committee Report Muftuoglu
11. Division Website Report Shaver
12. Honors and Awards Committee Report Sun
13. Nominating Committee Report Schubring
14. New Business All
  - a. Actions from Professional Divisions Workshop Muftuoglu/Kim



b. Actions from President's Meeting with Division Chairs Pointer/Kim  
c. ~~Interactions with Other ANS Entities - Committees, etc.~~ Schubring

Proxy assignments:

Xu Cheng assigned proxy to Xiadong Sun via email, June 9, 2017

Donna Guillen assigned proxy to Kurshad Muftuoglu via email, June 9, 2017

DuWayne Schubring assigned proxy to Kurshad Muftuoglu via email, June 10, 2017

Attachment B  
Executive Committee Meeting Sign-in Sheets

| ANS THD EC MEETING |  | 6/11/17          |
|--------------------|--|------------------|
| <u>NAME</u>        | <u>EMAIL</u>                                 | <u>EC MEMBER</u> |
| DAVE POINTER       | pointerwd@ornl.gov                           | ✓                |
| ELIA MERZARI       | emerzari@ornl.gov                            | ✓                |
| IGOR BOLOTNOV      | igor_bolotnov@ncsu.edu                       |                  |
| RODOLFO VAGHETTO   | R.VAGHETTO@TAMU.EDU                          |                  |
| THIEN NGUYEN       | thien.duy.ng@tamu.edu                        |                  |
| Si Young Lee       | si.lee@srnl.doe.gov                          |                  |
| Jong H. Kim        | kimj@kaist.ac.kr                             |                  |
| F. Bill Cheng      | fxcf@psu.edu                                 | ✓                |
| Baowen Yang        | bwy@mail.xjtu.edu.cn<br>bwi@capassocates.com | ✓                |
| Kurshad Muftuoglu  | kurshad.muftuoglu@ge.com                     | ✓                |
| Donna P. Guillen   | - proxy <i>DM</i>                            | ✓                |
| DuWayne Schubring  | - proxy <i>DM</i>                            | ✓                |
| Hisashi NINOKATA   | hisashi.ninokata@polimi.it                   | ✓                |
| Yong Hoon Jeong    | jeongyh@kaist.ac.kr                          |                  |
| Philippe Bardet    | bardet@gwu.edu                               | ✓                |
| Sandra M. Sloan    | smsloan@bwxt.com                             |                  |
| Jun Fang           | jfang3@ncsu.edu                              |                  |

ANS THD EC MEETING

6/11/12

| <u>NAME</u>          | <u>EMAIL</u>                | <u>EC MEMBER</u> |
|----------------------|-----------------------------|------------------|
| BRETT RAMPAL         | BRETT.RAMPAL@GMAIL.COM      | NO               |
| Fatih Aydoğan        | fataydogan@gmail.com        | Yes              |
| Piyush Sabhawal      | Piyush.Sabhawal@intl.gov    | <u>NO</u>        |
| Wade Marcum          | wade.marcum@oregonstate.edu | Yes              |
| NOLAN E. GOTH        | NEGCM7@TAMU.EDU             | NO               |
| JOHN LUXAT           | luxatj@mcmaster.ca          | Yes              |
| Chul-Hwa SONG        | chsong@kaeri.re.kr          | Yes              |
| Mason Childs         | masonchilds@tamu.edu        | NO               |
| Mateusz Maruniak     | matuz@tamu.edu              | NO               |
| Dillon Shuur         | dshuur@intl.gov             | NO               |
| Lane Carasik         | Lcar722@gmail.com           | Yes              |
| Xiaodong Sun         | Xdsun@umich.edu             | NO (proxy)       |
| Fatih Sinan Sarikost | fatihsinan@tamu.edu         | No               |
| GIACOMO BUSCO        | giacomobusco@tamu.edu       | NO               |



## Your THD Leadership Team

We all thank you for joining THD and look forward to working with you to advance our field. Please don't hesitate to reach out to anyone on the leadership team with suggestions or if you'd like to get involved.

### Officers

#### Chair

Seungjin Kim  
seungjin@purdue.edu

#### Vice Chair/Chair-Elect

Kurshad Muftuoglu  
kurshad.muftuoglu@ge.com

#### Secretary

W. David Pointer  
pointerwd@ornl.gov

#### Treasurer

Chul-Hwa Song  
chsong@kaeri.re.kr

#### Immediate Past Chair

DuWayne Schubring  
dschubring@ufl.edu

#### Executive Committee

(Terms Expiring June 2017)

Fan-Bill Cheung  
Paolo Feroni  
Donna Guillen  
Jong Kim  
Wade Marcum

(Terms Expiring June 2018)

Philippe Bardet  
Xu Cheng  
Jeffrey Lane  
Bao-Wen Yang

(Terms Expiring June 2019)

Fatih Aydogan  
Lane Carasik  
Yassin Hassan  
Elia Merzari

#### Standing Committees

**Technical Program Chair**  
Elia Merzari

**Honors & Awards Chair**  
Xiaodong Sun

**Webmaster**  
Dillon Shaver



## A Message from the Chair

Dear Colleagues,

It has been a great privilege and honor for me to serve Thermal Hydraulics Division (THD) as the Chair for 2016-2017 term. While I was serving on the Division, I must let you know that I felt lucky to have such dedicated members, always ready to help, in our Division. Thanks to you, our Division has been and continues to be one of the strongest professional divisions of ANS.

It is with great pleasure that I report that our Division membership has reached another record high of 1,251 members as of December 2016. This accounts for 11.8% of the total ANS membership and represents approximately 4% increase from 2015 membership. I am also quite encouraged to find that more than 30% of our Division's membership is comprised of young members including current students and recent graduates, who are the future of THD.

We are marching very well forward to have another successful year in Division's activities on technical meetings. In 2017 ANS Annual Meeting in San Francisco, we have more than 65 summaries made to the final program in 12 different technical sessions as of May 2017. During the conference, you will also find that our Division is co-sponsoring two sessions by teaming up with Mathematics and

Computation Division and Reactor Physics Division on *Current Verification and Validation Efforts of Multiphysics Packages* and on *Research and Test Reactors*, respectively. It is also exciting to see that NURETH-17, one of our flagship meetings, is well underway. As of May 2017, we have more than 1,000 abstracts submitted from more than 30 different countries for a total of 68 technical sessions, organized under 9 different Tracks. NURETH-17 will also host 15 special topics, 3 mini symposia and a workshop. During the NURETH-17 conference, Drs. Bestion, D'Auria and Dinh will be recognized as new NURETH Fellows for their outstanding contributions to numerous NURETH conferences since 1980.

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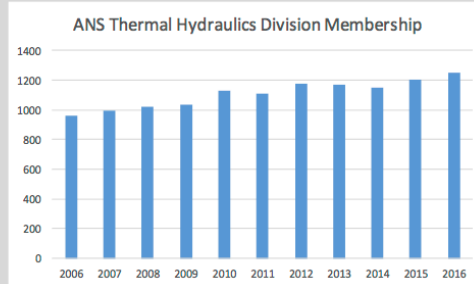
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## Membership Committee Report

Membership of the ANS Thermal Hydraulics Division is tracked based on membership renewals and applications submitted between January 1st and December 31st. As of the end of last year, 1,251 society members have identified themselves as members of THD on their applications or renewals. This year as well, we are expecting to match or surpass the last year's record membership.

Continued membership support is vital to our division's activities. All members are encouraged to contribute to the THD-sponsored meetings and participate as division officers if they can. Familiarizing others who are not THD members with our activities and encouraging them to join is always welcome!

*Kurshad Muftuoglu*  
Global Nuclear Fuel-Americas, LLC  
THD Membership Committee Chair (2016-2017)  
[kurshad.muftuoglu@ge.com](mailto:kurshad.muftuoglu@ge.com)



### Message From the Chair, cont.

NURETH-17 will be held in Xi'an, China from September 3 through 8 in 2017. As NURETH-17 is in its final stage in preparation, the THD Conference Screening Committee has received applications for NURETH-18 from prospective hosts, and the review of the applications is underway.

Special thanks are due to THD members who helped us identify our Division's Nuclear Grand Challenges (NGC) as part of the NGC Campaign led by the current ANS president Dr. Andy Klein. Since the start of the campaign in August 2016, a total of 43 THD NGCs have been proposed by the members. After rigorous vetting and down-select processes, top 3 THD NGCs were submitted to ANS Headquarter in March this year. As a result, I am happy to report that two of the final national NGCs are closely related to what our Division proposed, namely: "*Accelerate utilization of simulation and experimentation*" and "*Expedite licensing and deployment of advanced reactor design.*" I would like to take this opportunity to thank those who actively participated in this important activity.

I am particularly happy to report that THD Honors and Awards Committee selected Dr. Dave Aumiller and Dr. Paolo Ferroni for *Excellence in Review Award* and *Excellence in Review Mention*, respectively. These awards have been established to recognize THD scholars who have made exceptional review service to our Division and for their exceptional review qualities. As all of us know, performing high quality review is one of the key contributions that members can make and is directly related to maintaining integrity of THD meetings. In view of this, both Drs. Aumiller and Ferroni highly deserve the recognitions. Congratulations!

Finally, I would like to welcome newly elected THD officers for 2017-2018 term: Chair, Dr. Kurshad Muftuoglu; Vice Chair, Dr. David Pointer; Secretary, Dr. Chul-Hwa Song; and Treasurer, Dr. Wade Marcum. I would also like to welcome new and re-elected THD Executive Committee members: Drs. John Luxat, Hisashi Ninokata, Yang Liu, Annalisa Manera, and Piyush Sabharwall. I thank them, in advance, for their service.

As my term as a Chair ends in June, I would like to express my sincere appreciation and thanks to you again for continued support and dedication toward the success of our Division. I assure you that as long as THD has members like you, it will remain strong and continue to excel. I will look forward to contributing myself to the Division as a member and hope that we all continue to show our support to further strengthen our Division. I hope to see you in San Francisco in June at 2017 ANS Annual Conference. Thank you very much!

*Seungjin Kim*  
2016-2017 THD Chair  
School of Nuclear Engineering  
Purdue University  
[seungjin@purdue.edu](mailto:seungjin@purdue.edu)



## Honors and Awards Committee Report

### 2016 THD Technical Achievement Award

The recipient of the 2016 Thermal Hydraulics Division Technical Achievement Award (TAA) was Professor Nam Truc Dinh, Professor of Nuclear Engineering at North Carolina State University. He received this award for his outstanding contributions to the areas of reactor severe accident phenomenology and management strategies, advanced reactor analysis method development, critical heat flux, among many others, as indicated by the citation appeared on his award plaque, "For his research on thermal-hydraulics modeling, experimentation, and validation, that contributed to the development of effective severe accident management strategies for Generation II and III Light Water Reactor designs." During the THD award ceremony/TAA Lecture session held at the 2016 ANS Winter Meeting, Professor Dinh delivered a lecture entitled "Thermal-hydraulics in LWR Severe Accidents: State of the Art, Challenges and Perspectives."

The TAA is the highest award of the THD and we ask for nominations. The deadline for the next submission is

August 1, 2017. The details including the award form can be found at <http://thd.ans.org/awards/> and <http://www.ans.org/honors/awards/award-techachieve/>.

### 2016 Best Paper Award

In addition to the Technical Achievement Award, THD also selected a Best Paper award for 2016: "Air-Water and Steam-Water Onset of Flooding Data at Variable Pressure in a Large Diameter Tube" by N. Wynne, M. Garza, K. Vierow, D. Aumiller and M. Kyle, published in the Proceedings of the 2016 International Topical Meeting on Advances in Thermal Hydraulics (ATH'16), an embedded topical to the 2016 ANS Annual Meeting in New Orleans, Louisiana, June 12–16, 2016. The Best Paper award was presented at the THD award ceremony/TAA Lecture session held at the 2016 ANS Winter Meeting.

### 2017 NURETH Fellows

The NURETH Fellow was established by THD to recognize scholars who made "outstanding contribution to numerous International Topical Meetings on Nuclear Reactor Thermal-Hydraulics (NURETH) since 1980." 27 NURETH

Fellows were recognized at NURETH-15 held in Pisa, Italy in 2013. This year, THD selected Dr. Dominique Bestion, Dr. Francesco D'Auria, and Dr. Nam Dinh as new NURETH-16, who will be recognized at NURETH-17, to be held in Xi'an, China from September 3 through 8, 2017. Please join us to congratulate our new NURETH Fellows.

### 2017 Excellence in Review Award

The newly established Excellence in Review award by THD recognizes exceptional reviewers for the Division at ANS meetings, THD sponsored or co-sponsored topical meetings, and in general reviewing service to the Division. The Program Committee chair and assistance chair of THD, technical program chairs of meetings held with THD sponsorship or co-sponsorship in the previous three years (at the time of nomination) are eligible to nominate candidates for this award. THD selected Dr. David Aumiller for its inaugural Excellence in Review award and Dr. Paolo Ferroni for Excellence in Review Honorable Mention in recognition of their reviewing service to the THD and the exceptional quality of their reviews. Dr. Aumiller and Dr. Ferroni will be recognized at the THD award ceremony for its first Excellence in Review award, to be held in Room Pacific Concourse, immediately following the THD Monday afternoon session, "Two-Phase Flow and Heat Transfer Fundamentals" at the ANS 2017 Annual Meeting in San Francisco. Please join us to congratulate our outstanding reviewers.

I would like to take this opportunity to thank the THD Honors and Award Committee members for their dedicated work! Congratulations to all our honorees!

*Xiaodong Sun  
University of Michigan  
THD Honors and Award Committee Chair  
xdsun@umich.edu*



Dr. Nam Truc Dinh (middle) receiving the award plaque from Dr. Seungjin Kim (left) and Dr. Xiaodong Sun (right) at the Technical Achievement Award ceremony.

## Technical Program Committee Report

The strong THD presence at the ANS national meetings continues after a positive 2016 ANS Winter Meeting where a total of 92 summaries were presented at twenty THD-sponsored sessions. The interest and participation to the technical sessions organized by our division have again reached a record level at the upcoming 2017 ANS Annual Meeting where a record number of sessions and papers for an annual meeting will be presented. Thanks to the support of the session organizers, contributing authors and panelists, and reviewers, the program committee has put together another exceptionally strong arrangement of sessions for the meeting. These sessions are shown in chronological order in the insert above.

Among this rich program offering, we emphasize the two cosponsored sessions on Tuesday morning: A session on “Current Verification and Validation Efforts of Multiphysics



Dr. Fredrick Moody presenting at the S. Levy Memorial Session, at Las Vegas, November 2016.

## ANS Annual Meeting Technical Sessions

June 11-15, 2017  
San Francisco, CA

- Two Phase Flow and Heat Transfer Fundamentals [Mon. 1:00 pm]
- Advances in CTF and Multiphysics Coupling [Tues. 8:00 am]
- Current Verification and Validation Efforts of Multiphysics Packages (MCD) [Tues. 9:40 am]
- Research and Test Reactors (RPD) [Tues. 8:00 am]
- Experimental Thermal-Hydraulics: High Resolution Experiments—I [Tues. 1:00 pm]
- Experimental Thermal-Hydraulics—II [Wed. 8:00 am]
- Thermal-Hydraulics: General—I [Wed. 8:00 am]
- Computational Thermal-Hydraulics: Computational Fluid Dynamics—I [Wed. 1:00 pm]
- Thermal-Hydraulics: General—II [Wed. 4:30 pm]
- Large Eddy Simulation and Direct Numerical Simulation [Wed. 4:30 pm]
- Thermal-Hydraulics of Advanced Reactor and Fuel Concepts [Thurs. 8:00 am]
- Computational Thermal-Hydraulics—II [Thurs. 1:00 pm]

Packages” co-sponsored by MCD and a session on “Research and Test Reactors” co-sponsored by RPD. We also note that, following the Monday afternoon session, the award ceremony for the first **THD Excellence in Review Award** will take place. Please join us to congratulate our outstanding reviewers.

The 17th Internal Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-17) will be held in Xi’an, China on September 3-8, 2017. Please see the conference website <http://nureth17.com> and a related article in this Newsletter for more information. Deadline for submission has already passed and over 683 full papers have been received, marking this conference as one of the largest thermal-hydraulics conference to date. We hope to see you in Xi’an for what promises to be an exciting conference.

Moreover, do not forget that the submission website is open for the ANS Winter Meeting 2017, which will be held in Washington, DC at the Marriott Wardman Park hotel between October 29 and November 2,

2017. THD is again offering a vibrant program with twelve sessions (with two panels). We will also hold our young professional thermal-hydraulics research competition. Do not forget to submit papers at <http://epsr.ans.org/meeting/?m=149>.

- 19a. Thermal Hydraulic Collaborations in Industry, Academia and Labs (P)
- 19b. Thermal Hydraulics in Non-Power Applications
- 19c. Thermal Hydraulics of Advanced Reactors
- 19d. Computational Thermal Hydraulics
- 19e. Thermal Hydraulics for Nuclear Space Applications (P)
- 19f. Showcase of Thermal-Hydraulics Experimental Capabilities in the U.S.
- 19g. Severe Accident Modeling and Experiments for Advanced Reactor Safety
- 19h. Two-Phase Flow Fundamentals
- 19i. Experimental Thermal Hydraulics
- 19j. Computational Thermal Hydraulics
- 19k. General Thermal Hydraulics

In San Francisco, at the 2017 ANS Annual Meeting, the THD Program Committee meeting will be held on Sunday June 11th, 2017, starting at

[Continued on p. 5](#)

# NURETH-17

[www.nureth17.com](http://www.nureth17.com)

## Technical Program Committee Report, cont.

2:30 pm in room Pacific I. Anyone interested in the program committee activities is 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.

*Elia Merzari,  
Argonne National Laboratory  
THD Program Committee  
Chair (2016-2019)*

*Igor Bolotnov,  
North Carolina State University  
THD Program Committee  
Assistant Chair (2016-2019)*

*PCChair@thd-ans.org*

September 3 - 8, 2017  
Qujiang Int'l Conference Center  
Xi'an, China



### Important Dates

Abstract Submission Deadline:  
Nov. 15, 2016

Abstract Acceptance Notification:  
Dec. 15, 2016

Full-Length Paper Submission:  
Jan. 16, 2017

Full Paper Acceptance Notification:  
Mar. 31, 2017

Final Paper submission:  
May 15, 2017

The proceeding materials will be published electronically and distributed as a flash drive. NURETH-17 paper submissions are limited to no more than 14 pages and supplemented with a file size limit of less than 10MB. Papers which are recommended by TPC will be published in a special edition journal focused on nuclear engineering.

### About the Meeting

Nuclear Reactor Thermal Hydraulics (NURETH) represents a series of international forums organized and sponsored to assemble expertise in the field of reactor thermal-hydraulics and related topical areas. The Chinese Nuclear Society (CNS) and Xi'an Jiaotong University (XJTU) are pleased to host the 17th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-17) in Xi'an, Shaanxi, China, on September 3-8, 2017.

### Conference Website

<http://www.nureth17.com/>

#### Honorary Chair

S. G. Wang (President, XJTU)

#### Honorary Co-Chair

N. E. Todreas (MIT)

#### General Chair

G. X. Li (President, CNS)

#### General Co-Chairs

F. B. Cheung (PSU)

J. H. Kim (KAIST)

#### Technical Program Chair

B. W. Yang (XJTU)

#### Technical Program Co-Chairs

Y. A. Hassan (TAMU)

H. Ninokata (POLIMI)

#### Assistant Technical Program Chairs

D. L. Aumiller (Bechtel)

Y. P. Huang (NPIC)

J. Q. Shan (XJTU)

#### Int'l Steering Committee

X. Sun (U. Michigan), Chair

S. M. Bajorek (US NRC)

J. Buongiorno (MIT)

B. D. Chen (NPIC)

X. Cheng (KIT)

M. L. Corradini (UW)

R. O. Gauntt (SNL)

S. Y. Jiang (THU)

S. Kim (Purdue U.)

T. Kunugi (KU)

S. Y. Lee (SRNL)

J. Luxat (McMaster U.)

R. P. Martin (B&W)

K. Muftuoglu (GNF)

K. Okamoto (UT)

C. H. Song (KAERI)

Y. F. Sun (NPIC)

D. L. Wang (CNS)

H. Zhao (CGN)

#### Organizing Committee

Y. Di (XJTU)

P. Z. Gao (HEU)

R. Hu (ANL)

X. J. Liu (SJTU)

E. Merzari (ANL)

L. X. Shen (CNS)

Y. Q. Yu (ANL)

Bin Zhang (XJTU)



## Nominating Committee Report

The THD nominating committee for this year is composed of Seungjin Kim, Kurshad Muftuoglu, and DuWayne Schubring (chair). The goal of this committee is to nominate members for division committees, including division officers.

In June 2017, the following members' terms expire from the Executive Committee:

Fan-Bill Cheung, Paolo Ferroni, Donna Guillen, Jong Kim, DuWayne Schubring (ex-officio, as immediate past chair).

At the November 2016 meeting, Fan-Bill Cheung is appointed by the EC as a member of the Honors and Awards Committee, filling the seat opened by Michael Corradini, whose term expires in June 2017. Additionally, EC appointed John Luxat as the chair of the Conference Screening Committee, replacing Jong Kim.

On behalf of the Nominating Committee, I wish to thank all of our new officers and committee members for agreeing to serve the division in the next years along with all those rolling off committees for their past service.

*DuWayne Schubring*  
University of Florida  
THD Nominating Committee Chair (2016-2017)  
dlschubring@ufl.edu



## ANS Thermal Hydraulics Division

2017 Election Results



**Kurshad Muftuoglu**  
Chair

Principal Engineer, Global Nuclear Fuel  
Adjunct Faculty, University of Pittsburgh



**W. David Pointer**  
Vice Chair

Distinguished Nuclear CFD Engineer,  
Reactor and Nuclear Systems Division,  
Oak Ridge National Laboratory



**Chul-Hwa SONG**  
Secretary

Vice President, Nuclear Safety Research  
Department of KAERI



**Wade R. Marcum**  
Treasurer

Associate Professor, School of Nuclear  
Science and Engineering, Oregon State  
University



**Yang Liu**  
Executive Committee

Assistant Professor, Virginia  
Tech



**John Luxat**  
Executive Committee

Professor and NSERC/UNENE  
Senior Industrial Research Chair  
in Nuclear Safety Analysis  
Director of the Centre for  
Advanced Nuclear Systems,  
McMaster University



**Annalisa Manera**  
Executive Committee

Associate Professor, Department  
of Nuclear Engineering and  
Radiological Sciences,  
University of Michigan



**Hisashi Ninokata**  
Executive Committee

Professor, Department of  
Energy, Politecnico di Milano  
(POLIMI)



**Piyush Sabharwal**  
Executive Committee

Research Staff Scientist, Nuclear  
Science and Technology  
Division, INL

## Financial Report

Our division holds two separate accounts: one general and one scholarship/awards account (formerly referred as the endowment account). Spending from the general account is unrestricted up to the total value of the account, as long as the transactions are approved by the division executive committee. Spending from the awards account is restricted to ensure the long term availability of the fund to support the THD awards.

The general fund is supported by membership dues (referred as the Dues Revenue Allocation) and income from conferences hosted by the division dues (referred as the Meeting Revenue). The scholarship/awards account has primarily been funded by generous donations from the organizers of conferences supported by the division (referred as the Contribution Revenue).

The 2015 total year-end fund balance was \$47,128. In 2016, Prof. T.N. Dinh generously

donated \$1,000 (TAA monetary award) to the scholarship/award fund. And the Korean Nuclear Society (KNS) also generously donated \$5,000 to the scholarship/award fund following the successful completion of NUTHOS-11, but this was deposited to the division account in Feb. 14, 2017. Spending through the end of December 2016 was limited to \$2,227 mainly for plaques and certificates as well as student travel support. The spend limit for 2016 is \$4,400.

Since scholarship/award account balances are reported annually, no update of investment returns for the first half of 2017 is available. No expenses have been recorded to date for the first half of 2017, but \$1,000 will be disbursed to ANS headquarter for ANS Student Conference Support (\$500) and ANS Student Travel Support (\$500) in the first half of 2017 as usual.

*Chul-Hwa Song*  
*Korea Atomic Energy Research Institute (KAERI)*  
*THD Treasurer (2016-2017)*

|  | Budget          | Actual<br>12/31/16 |
|--|-----------------|--------------------|
| <b>Balance forward from 2015</b>               | <b>\$47,128</b> | <b>\$47,128</b>    |
| <b>2016 Income</b>                             | <b>\$3,800</b>  | <b>\$8,778</b>     |
| Revenue from 2016 member allocation            | \$2,300         | \$2,378            |
| Revenue from meetings                          | \$1,500         | \$5,400            |
| Contribution Revenue                           | -               | \$1,000            |
| <b>2016 Expenses</b>                           | <b>\$4,400</b>  | <b>\$2,228</b>     |
| Awards and Plaques                             |                 |                    |
| to support YPC Best Paper Award                | \$500           | \$1,212            |
| Student Support                                |                 |                    |
| \$1000 to support ANS Student Travel Fund      |                 |                    |
| \$500 to support ANS Student Conference        | \$3,400         | \$1,000            |
| \$2400 for THD Directed Student Travel Support |                 |                    |
| Scholarship/NEED funding                       |                 |                    |
| \$500 ANS directed scholarship fund            | \$500           | \$0                |
| Other Expenses                                 | -               | \$16               |
| <b>Fund Balance</b>                            | <b>\$46,528</b> | <b>\$53,678</b>    |

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K. Muftuoglu, Editor

<http://thd.ans.org/>



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 Thermal Hydraulics Division