

ANS – THD Division Meeting Minutes

Program Committee Virtual Meeting

November 10, 2024

Attendees (47):

Dillon Shaver (ANL, Chair)	Jon McWhirther (TP)	Shanbin Shi (RPI)
Izabela Gutowska (OSU, Assist. Chair)	Juliana Duarte (WM)	Steve Bajorek (NRC)
Igor Bolotnov (NCSU)	Jun Fang (ANL)	Subash Sharma (UMass-L)
Andrew Morreale (CNL)	Jun Liao (WEC)	SuJong Yoon (TP)
Arsen Iskhakov (KSU)	Karen Kirkland (TAMU)	Sunming Qin (INL)
Bao-Wen Yang (Delta)	Ling Zou (ANL)	Taiyang Zhang (UIUC)
Caleb Brooks (UIUC)	Marco Delchini (ORNL)	Trevor Howard (OSU)
Carolina Dutra (PSU)	Maria Avramova (NCSU)	Victor Petrov (ETH)
David Novog (McMaster)	Marilyn Delgado (BWXT)	Wei Ji (RPI)
Donna Guillen (INL)	Musa Moussaoui (OSU)	Xiaodong Sun (UMich)
Drew Ryan (Bettis)	Piyush Sabharwall (INL)	Xingang Zhao (UTK)
Elia Merzari (PSU)	Rafiul Abdussami (UMich)	Xu Wu (NCSU)
Fan-Bill Cheung (PSU)	Robert Martin (BWXT)	Yang Liu (TAMU)
Ferry Roelofs (NRG)	Rui Hu (ANL)	Yassin Hassan (TAMU)
Guanyi Wang (ANL)	Saya Lee (PSU)	Yue Jin (U-Missouri)

1. Opening

The meeting was opened by Dr. Shaver. A draft agenda was provided prior to the meeting.

2. Approval of Meeting Agenda

The draft meeting agenda was provided to the meeting participants (Appendix 1). Dr. Shaver requested comments and discussion.

MOTION to approve: Steve Bajorek

SECOND by: Elia Merzari

NO DISCUSSION

APPROVED UNANIMOUSLY

3. Approval of Minutes from 2023 Summer Meeting

Draft minutes from 2023 summer meeting were made available prior to the meeting. Dr. Shaver requested comments and discussion. Some small misspellings and updates on the attendance list were mentioned.

MOTION to approve the amended minutes: Elia Merzari

SECOND by: Drew Ryan

NO DISCUSSION
APPROVED UNANIMOUSLY

4. Update on the THD Program for the 2024 Winter Meeting (including ATH'24)

Dillon Shaver provided an update on the upcoming winter meeting embedded ATH'24. It is a full schedule with three rooms during three days. The historic trend was presented. The ATH submission trend is slightly upward, with a positive outlier being ATH'18. In general the ANS winter participation has a slightly downward trend. Finally, the THD sessions as a fraction of the ANS Winter meeting show consistency.

Each session has at least one confirmed chair. Openings for co-chairing a few sessions are available.

More information is available in a separate report.

DISCUSSION

Elia Merzari explains that the positive outlier of ATH'18 can probably be explained by the large effort to integrate more European colleagues in ATH with the outlook to organize ATH'20 in Europe as a stand-alone conference.

The small rejection rate of papers was discussed. It was suggested to provide more guidance to the reviewers. Reviewer guidelines for NURETH and NUTHOS are available and can be taken as example.

Action: Review the reviewer guidelines of other conferences and suggest how to proceed with the next ANS meeting (Dillon Shaver)

Small mistakes were identified in the meeting report. Dillon Shaver will correct these mistakes.

5. Update on the THD Program for the 2025 Annual Meeting June 15 – 18, 2025, Chicago, IL

Dillon Shaver and Izabela Gutowska reminds that the call for papers is out with a deadline on 7 February 2025. The meeting will contain 15 sessions, including 4 panels and lightning talks. Reviews will be due 21 February.

NO DISCUSSION

6. Planning for the future 2025 Winter Meeting

Dillon Shaver and Izabela Gutowska lead the discussion on the preparation of the ANS Winter Meeting in Washington DC and solicit for ideas on panels, special sessions and track chairs.

DISCUSSION

Jun Liao brings in that the industry engagement task force already has ideas for 3 panels:

- Panel 1: Increase enrichment, high burnup, power update (Baris Sarikaya, Igor Bolotnov)
- Panel 2: Thermal Hydraulics of SMR (Bao-Wen Yang, Trevor Howard)

- Panel 3: Thermal Hydraulics of micro reactors (Jun Liao, Steve Bajorek, Caleb Brooks)

For the following standard sessions track chairs have been identified:

- General TH (Shanbing Shi, Ling Zou)
- Advanced Reactor TH (Ferry Roelofs, Elia Merzari)
- Experimental TH (Jin Yue, Sunming Qin, Saya Lee)
- Computational TH (Subash Sharma, Carolina Dutra)
- Computational Multiphase Flow (Jun Fang, Anna Iskhakova)
- Experimental Multiphase Flow (Caleb Brooks, Guanyi Wang)
- Young Professional Competition (Xingang Zhao, Yang Liu [TAMU])

It was noted that the track on advanced reactor TH might be split when a sufficient number of submissions dedicated to a specific advanced reactor type will be received.

The following special sessions were proposed with track chairs identified:

- AI and ML applications for nuclear TH (Subash Sharma, Xu Wu)
- TH challenges in multiphysics simulations (Guanyi Wang, Trevor Howard)
- TH challenges in microreactors (Elia Merzari, Arsen Iskhakov, Piyush Sabharwall, Yassin Hassan)
- TH research in advanced fuels (Shanbing Shi, Steve Bajorek)
- OECD/NEA AI/ML Benchmark on CHF (Xu Wu, Xingang Zhao)
- Nuclear Technology 60 Year Anniversary (Yassin Hassan, Ferry Roelofs)

7. NUTHOS-14 update

David Novog and Andrew Morreale report on the NUTHOS-14 conference in Vancouver. Technically the conference was a success. All sessions were full with good quality papers. The conference hosted more than 250 participants, 200 papers divided over 52 sessions, including 6 keynotes, 5 special sessions, 2 plenaries and a student/early career event. The special technical sessions were organized as panels with 2 chairs and 4 panelists. This worked out well and attracted participants. The student/early career workshops could have been more successful with more advertising and if they would not have been in conflict with other technical sessions.

Financially the conference worked out break-even. The conference experienced issues with Visa applications, notably from Chinese and Indian residents which resulted in some late withdrawals or changes of speakers. Also, the competition of the ICONE conference in Prague in the same month for which it was much easier to obtain a Visa might have influenced the participation.

Finally, special journal issues are for Nuclear Technology, Nuclear Science and Technology and Nuclear Engineering and Design are under preparation. Authors will be notified in the coming weeks.

NO DISCUSSION

8. NURETH-21 Update

Elia Merzari reports on behalf of the organizing committee. The call for abstracts has been extended until the end of November. In general the organization is progressing well. The 5th NURETH-21 advisory meeting will be organized during ATH'24 in Orlando on Monday 11:30 am in the Tarpon Room.

NO DISCUSSION

9. ATH'26 Update

The chair of ATH'26 will be Igor Bolotnov (Overall chair). Dillon Shaver and Izabela Gutowska will serve as Technical Program Committee chairs.

DISCUSSION

In order to enhance international participation, involvement of Asian and European colleagues as Technical Program Committee chairs will be beneficial. Ferry Roelofs offers to check for a suitable candidate from Europe (if necessary, he can take the job himself). He also suggests to take benefit from the international panel at the upcoming ATH'24 to organize an informal meeting with the various international society representatives.

Action: Dillon Shaver to consider arranging a meeting with the international representatives during ATH'24.

10. NURETH-22 Update

Fan-Bill Cheung provides a short update on proposals for NURETH-22. The deadline is end of this week. As of now, no proposals have been received. However, at least 1 or 2 proposals are expected. An update can be provided during the EC meeting next week.

NO DISCUSSION

11. Old business

Trevor Howard recalls the discussion on setting up a benchmark competition for students. There are questions on the budget for awards and if it is necessary to create an official task force or committee.

DISCUSSION

Elia Merzari explains that if a special committee is targeted, it should be arranged through the EC. It might be better to define a special task force under the PC. Trevor will proceed with the preparations.

12. New business:

Bao-Wen Yang suggests to organize a special memorial session for the passing away of John Kelly at the Chicago meeting.

DISCUSSION

It was discussed that a panel session might be most appropriate. Elia Merzari, Xiaodong Sun and Bao-Wen Yang volunteer to organize this panel. They will reach out to SNL. Dillon Shaver will contact ANS (Janet) to make arrangements.

Izabela Gutowska proposes to discuss the preferred time for organizing PC meetings since some colleagues have indicated that organization in the weekend brings conflicts with private commitments.

DISCUSSION

There are pros and cons of the following options:

- Online sunday morning the week before the EC meeting:
 - Pro: Proven large attendance since it is online and mostly no other work commitments.
 - Con: Conflicts of interest with private commitments (for US participants but certainly for international colleagues from Asia and Europe)
- In person sunday afternoon prior to the EC meeting:
 - Pro: Many people are there anyway for the EC meeting. No conflicts of interest with other work or private commitments. Above that, live meeting are more interactive.
 - Con: Online participation difficult, so probably less participation.
- Weekdays:
 - Pro: No conflicts with private commitments.
 - Con: Difficult to find a time in which there are no conflicts with other work commitments.

Action: All participants can make a proposal to Izabela Gutowska for the organization of the next PC meeting. The more concrete, the better.

Adjourn

MOTION to adjourn: Elia Merzari

SECOND: Bao-Wen Yang

NO DISCUSSION

APPROVED UNANIMOUSLY

Appendix 1: PC Agenda

PROPOSED AGENDA

American Nuclear Society – Thermal Hydraulics Division

Program Committee Virtual Meeting

2024 ANS Winter Meeting

11:00 AM US Eastern Daylight Time (EDT), Sunday, November 10th, 2024

1. **Opening** (Shaver/Gutowska)
2. **Approval of Meeting Agenda** (All)
3. **Approval of Minutes** from 2024 Annual Meeting (All)
4. **Update on the THD Program for the 2024 Winter Meeting (including ATH'24)**, November 17 – 21, 2024, Orlando, FL: submission statistics, reviews, and session assignments (Shaver/Yang/Pointer)
5. **Update on the THD Program for the 2025 Annual Meeting** June 15 – 18, 2025, Chicago, IL: call for papers & submission deadlines (Shaver/Gutowska)
6. **Planning for the future 2025 Winter Meeting**, November 9–12, 2025 Washington, DC (Shaver/Gutowska/All)
7. **Update on the NUTHOS-14**, August 25 – 28, 2024, Vancouver, BC, Canada (Novog/Morreale)
8. **Update on the NURETH-21**, August 31 – September 5, 2025, Busan, Korea (Lee)
9. **Update on the ATH'26**, November 15 – 18, 2026, Phoenix, AZ (Shaver)
10. **Update on the NURETH-22**: status of the request for proposal (Cheung/Bolotnov)
11. **Old Business** (All)
12. **New Business** (All)