

**ANS – THD Division
Program Committee Virtual Meeting
June 9, 2024**

Attendees (36):

Dillon Shaver (ANL, Chair)	Rui Hu (ANL)	Fan-Bill Cheung (PSU)
Izabella Gutowski (OrSU, Assist. Chair)	Nadish Saini	Guanyi Wang (ANL)
Igor Bolotnov (NCSU)	Jon McWhirter (TP)	Jun Liao (Westinghouse),
Bao-Wen Yang (Delta)	Yang Liu (ANL)	Subash Sharma (UMass-L),
Drew Ryan (Bettis)	Musa Moussaoui (OSU)	Trevor Howard (OrSU)
Elia Merzari (PSU)	Victor Petrov (UM)	Yassin Hassan (TAMU),
Chaube Anshman (ANL)	Marilyn Delgado (BWXT)	Yue Jin (U-Missouri)
Maria Avramova (NCSU)	Lander Ibarra (ANL)	Donna Guillen
Guillaume Mignot (OSU)	Drew Ryan (NNL)	Carolina Dutra
Emri Tatli (<u>W</u>)	Baris Sarikaya (Constellation)	Wei Ji (RPI)
Kurshad Muftuoglu (EPRI)	Emre Tatli (WEC)	

1. Opening

The meeting was opened by Dr. Shaver at 9:00 am. A draft agenda was provided prior to the meeting, with the objective to discuss technical sessions for the upcoming ANS meeting in addition to other future ANS-sponsored meetings with thermal-hydraulics.

2. Approval of Meeting Agenda

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

MOTION to approve: Elia Merzari
SECOND by: Drew Ryan

NO DISCUSSION
APPROVED UNANIMOUSLY

3. Approval of Minutes from 2023 Winter Meeting

Draft minutes from 2023 winter meeting were made available prior to the meeting. Dr. Shaver requested comments and discussion.

MOTION to approve: Drew Ryan
SECOND by: Bao-Wen Yang

NO DISCUSSION
APPROVED UNANIMOUSLY

4. Update on THD session for ANS 2024 Annual Meeting

Dr. Shaver provided an update on thermal-hydraulic sessions for the ANS 2024 Summer Meeting. The current meeting has 45 papers accepted out of 55 submitted. This represents an encouraging trend possibly with the numbers increasing.

DISCUSSION:

In the discussion on past meeting numbers (2021 is actually 2022) it was noted some may be off a year. Dillion to send revision. Elia noted that the Lightning Talks may or may no continue. They are not a permanent feature. This is partly because the Lightning Talks are difficult to schedule with regular talks. There are no Lightning Talks planned for the winter meeting but there will be some in ATH.

The number of reviewers was down for summer meeting. The upcoming summer annual meeting has 9 sessions. Space is restricted in this conference, so some sessions will go longer and have six summaries. The upcoming winter ATH has 57 submittals not including keynotes, with 22 still in draft. An email to start review process for ATH to go out soon.

5. Planning for the Upcoming 2025 Annual Meeting

Next year's summer meeting is in Chicago June 15-18, 2025.

DISCUSSION:

Proposals for Special Sessions were requested and discussed. Jun Liao offered to plan a panel sessions for industrial operations. Proposed would be one panel on operating reactors and another on testing in support of reactors. Baris supported likes Jun's idea and wants a standing panel session. Topics can be flexible. Several good options suggested and discussed. Suggested was a third panel on non-traditional applications. Tentatively the panels are:

Thermal-Hydraulic Opportunities (Liao/Sarikaya)
Thermal-Hydraulic Testing for Advanced Reactors (Liao/Yang)
Non-traditional Uses of Nuclear Energy (Sharma/Merzari/Hassan/Liao)

The discussion continued with the request for other special sessions. Elia suggested multi-phase flow and Sharma suggested AI applications. G. Wang suggested adding a session on multiphysics. Elia suggested we refine the title to "Thermal-Hydraulic Challenges in MultiPhysics".

Special sessions tentatively:

AI/ML in Thermal-Hydraulics (Sharma/Wu/Sarikaya)
Thermal-Hydraulic Challenges in MultiPhysics" (Wang/Howard)
Thermal-Hydraulic Challenges in Microreactors (Merszari/Delgado/Parisi)

For Standard sessions the plan is:

General Thermal-Hydraulics (Jin/Duarte)
Advanced Reactor Thermal-Hydraulics (Sharma/Mignot)
Experimental Thermal-Hydraulics (Shi/Mignot)
Computational Thermal-Hydraulics (Wang / Duarte)
Computational Multiphase Flow (Bolotnov/Ryan)
Experimental Multiphase Flow (Ryan /Jin)

6. Special Issues for NURETH-20

NURETH-20 was held August 20-25, 2023 in Washington, DC. Elia gave an update. Papers were invited, and can be submitted until June 30 and will then close. Authors have been notified. Nuclear Science and Engineering has 10 submittals, Nuclear Technology has 28 submittals, and Nuclear Engineering and Design has 11 submittals. Reviews have been completed for most papers.

7. NUTHOS-14 update

The NUTHOS-14 conference is being planned for August 25-28, 2024 in Vancouver, Canada. Bao-Wen Yang reported that reviews are in progress. Planning for the conference is well underway. Several special sessions are planned.

8. ATH 2024 Update

The 2024 winter ANS meeting will include the embedded ATH topical meeting. The meeting is scheduled for November 17-21, 2024 and will be held in Orlando, FL. Dr. Shaver gave an update about the conference.

DISCUSSION:

The EPSR was open until June 7. Shortly before this deadline there were approximately 70 submittals. This does not include invited papers for 12 keynotes which is the current plan. Elia noted the number of keynotes has been usually 3 or 4 however. Several panel sessions being planned. Jun noted ATH is first meeting in which the industrial task force is organizing panels.

An invitation to review to come out shortly.

9. NURETH-21 Update

The next NURETH will be NURETH-21 in Busan, Korea and planned for August 31 to September 5, 2025.

Elia gave a short summary. There is a meeting in Las Vegas on Monday to help plan. Abstracts are due October 25, 2024 with full papers due Jan 31, 2025.

10. ATH 2026 Update

Dillon Shaver reported that paperwork has been submitted for calendar placement. This meeting will be in Phoenix, AZ in winter 2026. It's early, but the Division will be looking for volunteers soon.

11. Old business

Drew Ryan: (inaudible) Wanted to know if submittals are up this year because it's in Las Vegas. Dillon Shaver noted that this might be true, 2016 had large numbers.

12. New business:

Elia Merzari discussed participation and how to increase it. To increase participation, can we stimulate by having a student design competition or something like a capstone presentation. Poster sessions are too much of a hassle. But possibly a benchmark competition where students try to simulate some data.

Reward does not have to be a large monetary prize.

Elia, Victor, Trevor, and Marilyn agreed be a task force to scope out an idea on using the capstones. Iza suggested to have a meeting of those interested in formulating a benchmark competition.

No other new business.

Dr. Shaver asked for a motion to adjourn, which was made by Igor Bolotnov and seconded by Drew Ryan. Meeting was adjourned.

Appendix

American Nuclear Society – Thermal Hydraulics Division
Program Committee Virtual Meeting
2024 ANS Annual Meeting
11:00 AM US Eastern Daylight Time (EDT), Sunday, June 9th, 2024

1. **Opening** (Shaver/Gutowska)
2. **Approval of Meeting Agenda** (All)
3. **Approval of Minutes** from 2023 Winter Meeting (All)
4. **Update on THD Program for the 2024 Annual Meeting** (Shaver/Gutowska) General Meeting: Submission Statistics, Reviews, and Session Assignments. Note some sessions have 6 summaries.
5. **Planning for the future 2025 Annual Meeting** (Shaver/Gutowska/All) June 15 – 18, 2025, Chicago, IL
6. **Special Issues for NURETH-20** (Bajorek)
7. **NUTHOS-14 Update** (Novog/Morreale) August 25 – 28, 2024, Vancouver, BC, Canada
8. **ATH'24 Update** (Shaver/Yang/Pointer) November 17 – 21, 2024, Orlando, FL
9. **NURETH-21 Update** (Lee) August 31 – September 5, 2025, Busan, Korea
10. **ATH'26 Update** (Shaver) November 15 – 18, 2026, Phoenix, AZ
11. **Old Business** (All)
12. **New Business** (All)