

Forum on History and Philosophy of Physics, 2023 Executive Committee Meeting
Hilton Minneapolis Hotel, Minneapolis, MN
April 16, 2023

In attendance:

Paul Halpern, St. Joseph University, Chair

Al Martinez, University of Texas-Austin, Chair-Elect

Michael Janssen, University of Minnesota, Past Chair

Bruce Hunt, University of Texas-Austin, Vice Chair

Doug Stone, Yale University, At-Large Member

Cathryn Westfall, University of Michigan Emeritus, Councilor

Don Salisbury, Austin College Emeritus, *FHPP Newsletter* Editor

Ed Neuenschwander, Southern Nazarene University, Secretary/Treasurer

Zoom connections were not available, which precluded other members if the Executive Committee (EC) from joining remotely. However, those present were sufficient to have a quorum.

The meeting was called to order at 9:00 AM CST by Paul Halpern.

There were few action items in this meeting. It consisted mostly of information and discussion, and, of course, was an installment in building community through face-to-face meeting of FHPP members and APS staff.

The reports of the various sub-groups and officers are attached.

Due to the lack of travel and related expenses when meetings were cancelled during the height of the Covid pandemic, the FHPP had an unusually large balance (~\$50K) at the time of this meeting. Therefore discussion turned to the question of one-time reimbursements of registration fees for FHPP EC members.

Points made in the discussion included:

- * Registration fees are growing prohibitively expensive for many APS members;
- * Younger people are growing used to working remotely;
- * If we have a temporary surplus, what projects could be accomplished instead of spending it "on ourselves;"
- * Could we not use \$50K for some other event, some activity in the history and/or philosophy of physics?
- * In the past APS was a "lot looser" about registration fee policies and fees were much lower;
- * In earlier years, more physicists had travel support.

Councilor Westfall observed that the transition to open access has put financial strain on APS, and in addition, although the editors of the journals are still physicists, most of APS management team members are now business people.

Reimbursing registration fees for EC members was approved by vote for this one-time situation, thanks to the unusual surplus. This action is *not* a policy going forward.

Moving on to recent meetings, the attendance at the APS March meetings has “exploded,” while attendance at the April meeting has been declining. About 13,000 attended the March meeting (“so much traffic in corridors”), about 1,300 at the April meeting.

At 9:30 am, as had been scheduled, the CFO of APS, Jane Gould, and the APS CEO, Jonathan Bagger, dropped in on the EC meeting. Bagger began by announcing that 2023 is the 125th anniversary of the founding of APS, which is also a good time to “refresh the strategic plan” and for this purpose he is reaching out to all APS Units. Gould added that “legacy is the business of FHPP.” With an emphasis for the 125th anniversary year to “make progress on diversity,” it is important to understand the history. One suggestion floated was whether the FHPP should make a study group to study APS history. with an emphasis on the history of inclusion. “Truth and reconciliation” projects were mentioned as healing examples. APS needs focus, which requires history. It was noted that physicists, like other human beings, have been known to whitewash history.

Janssen suggested a session on “Women in Quantum Mechanics” as part of the Quantum Century. To make it a success will require investment, but so far there is little money for the Quantum Year international celebration. Martinez said it would be good to tie the women in quantum mechanics program to the 125th birthday of APS—duly noted by Halpern (incoming Program Committee Chair).

Conversation then turned to the move of APS headquarters from One Physics Ellipse in College Park to downtown Washington DC. In 2021 the APS Board took a close look at APS real estate assets on Long Island. On February 2022 APS closed on the sale of a 45,000 sq. ft. building there and purchased a 10,000 sq. ft building closer to New York City. The American Center for Physics building in College Park was put up for sale. The new ACP address is 555 12th St. NW, by the Metro Center. In the sale of the CHP, it was arranged that the buyer would lease back the History Center on a ten-year-lease.

The next topic given to us by Bagger was updates on new hires at APS. As part of the personnel change discussion we learned that three-quarters of APS revenue comes from publishing; consequently, open access is a dominating issue; that AI is being used to check grammar on

manuscripts by authors for whom English is not their first language; that, while APS management has a business outlook, the Editor in Chief is still a physicist and a Board member.

Fatima Allen is the new Diversity & Ethics officer. Her role is to “infuse the value of diversity.” Program directors will report to her.

The next topic of discussion regarded APS meeting logistics. For younger members, the need for child care is receiving more attention, and (perhaps for this reason) younger members are more open to remote meetings (or a remote option) instead of in-person. This raised a discussion on the executive committee about competing values: There is convenience and reduced personal expenses that come with online meetings. On the other hand, in-person meetings build community.

After a short break the meeting resumed with discussion of how to best celebrate the 125th anniversary of the founding of APS.

* Martin: with an event? When should the celebration officially begin?

* Gould noted that the actual 125th birthday would be May 11, 2024. She added that in 2025 the traditional March and April APS meetings would be combined into a joint meeting. This might be a good venue to celebrate the anniversary, along with the Century of Quantum Mechanics.

* Janssen: lead time for organizing such events is at least one year for history projects. Would the 125th anniversary date be used to *launch* a season of celebration, or be the *final product*?

* Martinez: FHPP would benefit in having something to present in 2024.

* Gould: We are open to suggestions.

* Martinez: History as told by an institution itself is typically a story of the dramatic *milestones*, which, while important, can pre-empt the history of people of courage and patience overcoming persistent obstacles at a more mundane level where the meaningful progress is actually made. For example, everyone remembers Dr. Martin Luther King Jr.’s “I Have a Dream” speech that he made on the steps of the Lincoln Memorial in 1962—and we *must* remember it. But less famously—but no less important—was a simultaneous event that few now recall: the courageous and persistent black female students who protested their not being allowed to live in a particular university’s female student dormitory. So if APS is going to tell its own history of inclusion, we should do better than emphasizing only grand highlights. Real progress in inclusion and diversity, and the elimination of structural obstacles, will be apparent when it occurs at the routine, mundane levels. Life is mostly lived in the ordinary. That is where progress will be judged.

* Gould commented that, back when some people were promoting eugenics, APS leadership did not condemn it.

* Turning to another topic, Gould raised the question of how we should address science mis-information, from leveraging digital content to how information is shared on platforms such as U-Tube.

* Westfall asked who in APS could link with groups that focus on informing the public about science or are devoted to outreach, e.g., the Committee on Informing the Public and the Forum on Outreach? [Comment from note-taker: the Society of Physics Students has had outreach programs for decades, taking a wide variety of outreach programs to K-12 and the general public.]

* Janssen mentioned that the plays that FHP/FHPP sponsored in previous meetings have been handed over to the Forum on Outreach.

Westfall: APS has in recent years become confining and complicated. Bagger explained that each APS meeting includes six satellite meetings with local and virtual streaming. APS is becoming more international, more closely aligned with peers around the world. Halpern commented that this executive committee meeting would have been streamed to those who could not attend in person, but the hotel was going to charge thousands of dollars for such service.

The conversation then returned to the Quantum Year. Gould told us that APS is taking the lead along with the German Physical Society and the cooperation of UNESCO. The Quantum Year will be modeled on the Year of Light, with a focus on outreach. The Quantum Year will also be a “launching pad” for scholarly works. FHPP and similar bodies will be asked to fact-check outreach, while working with longer-term scholarly outreach projects.

Returning to the American Center for Physics, Fred Dylla (former AIP CEO) led a study on options for the future of the Center for the History of Physics. The Dylla study especially focused on recent physics ($\geq 20^{\text{th}}$ century). Proposals to APS for projects needing funding on the order of \$10 k will be invited (such as the history of quantum textbooks, quantum technology, etc.). Donald Salisbury pointed out that there are many quantum institutes—even though most of quantum mechanics was developed in Germany and Copenhagen in the early days, the Quantum Year should celebrate the *century* of quantum mechanics. Janssen added that the entire process will need quality control.

The meeting was adjourned by acclamation at noon.

Respectfully submitted,

Ed Neuenschwander

FHPP Secretary/Treasurer

Attachments:

1. April 2023 Canvassing Committee Report
2. April 2023 FHPP Newsletter Report
3. FHPP Program Committee Report, 2022-2013
4. April 2023 FHPP Secretary-Treasurer Report

1. April 2023 Canvassing Committee Report

Don Salisbury and Margriet van der Heijden

I (Don) have not yet devoted the time to the canvassing effort that is necessary. Margriet has received a suggestion from Ruud Tromp and Michel Janssen that Louisa Gilder be nominated as an APS Fellow. She has asked Daniela Monaldi from the working group Women in the History of Quantum Physics if she could suggest someone to second Michel Janssen's letter. In addition she asked Daniela if she would spread the word of this call for nominations at tomorrow's meeting of the group.

Further good news is that Jürgen Renn, the former Director of the Max Planck Institute for the History of Science and now the Director of the Max Planck Institute of Geoanthropology, has agreed to join us in this effort. He is of course acquainted with an enormous number of knowledgeable historians of science. I will be undertaking a discussion on this topic with him – hopefully today!

2. April 2023 FHPP Newsletter Report

Don Salisbury

I want to begin with apologies for the tardiness of the appearance of the 2022 Spring and Fall Newsletters. This was caused in large part by the accident that my wife suffered at the beginning of last year's Spring meeting in New York. She suffered a subdural hematoma that led to brain surgery and hospitalization for five weeks in New York. I was severely limited in the time available to undertake a careful editing of the English version of the original article in Chinese by my friend and collaborator Yin Xiaodong – and there were further delays in gathering contributions. The Fall edition was not quite so severely retarded in appearance, but here the cause was not totally my lack of attention. The main article here also required some extensive editing.

I did mention last year that I would joyously welcome more contributions – including from our executive committee and from others that any of you might be able to recommend. Indeed, I would so much appreciate any content recommendations that you could make. One topic that I think should be continually addressed is the philosophy of physics. I have as yet not published anything on this topic. Also, as I mentioned last year, I would like to continue to address both international and discriminatory issues.

Of course, as I recall, the appointment to this position normally is for two years, and I would like to express my desire to continue in this role.

3. FHPP Program Committee Report: 2022-23

Alberto Martinez, Chair. Members: Catherine Westfall, Virginia Trimble, Clayton Gearhart

SESSIONS:

The Program Committee organized an excellent series of sessions for both the March Meeting (2 invited sessions, with 9 speakers total) and the April Meeting (3 invited sessions, 1 contributed, with 13 speakers total).

For the March Meeting, Rebecca Ullrich and Catherine Westfall organized a session on “Nuclear Testing” after World War I. Virginia Trimble organized a session on “Anniversaries” in physics and astronomy. The March sessions will remain on the APS website until June 30, with closed captions, so FHPP members might still be able to watch them (despite errors in the transcriptions).

For the April Meeting, Clayton Gearhart organized a session on the Stern-Gerlach experiment, Catherine Westfall organized a session on “Crisis and Big Science,” and Alberto Martinez organized the Pais Prize session. The fourth session was composed of contributed papers.

DIVERSITY & INCLUSION:

- Inclusion: To encourage FHPP members to either become speakers or to propose speakers, in summer 2022 we sent a group email and reminder to all FHPP members asking them to please suggest possible speakers. We received the following suggestions: Lena Zuchowski, Chad Orzel, Jay Pasachoff, Virginia Trimble, Howard Fisher, Michael Riordan, Kip Thorne, Roger Penrose, Sean Carroll. After considering various factors, we decided to create an Invited Session with the first four persons listed here, plus, Virginia contacted Ronald Mickens and he suggested Donnell Walton.

- Diversity: In March, Donnell Walton spoke about Willie Hobbs Moore, the first African-

American woman to receive a PhD in Physics from a U.S. university, and winner of the first APS Bouchet Prize. Also in March, Virginia Trimble too spoke about other pioneers: Harvey Washington Banks, the first African-American astronomy PhD; St. Elmo Brady, the first African American recipient of a chemistry PhD; Cecilia Payne who rightly proposed that stars are mostly composed of H and He, in her dissertation; and, Mario Molina, from Mexico, Nobel Prize winner in 1995 for chemistry.

- Gender / Race & Ethnicity / Countries: In the March & April Meetings, the speakers were 5 women and 14 men, including 1 African American, 1 Hispanic, several speakers from outside the US, including: Israel (1), Germany (3), the United Kingdom (3).

- Graduate Students: In the March & April Meetings, 2 speakers are graduate students.

FUNDING:

The Program Committee requested \$500 per speaker to fund registration fee waivers and minor travel expenses for each invited speaker, for an expense of up to \$7,000 total for all speakers. By vote, the FHPP EC allocated \$7,000 to fund FHPP Invited Speakers in APS March 2023 and APS April 2023. We had 9 speakers for March APS, and the following March speakers will apparently use the \$500 allocated for each of them: (1) Carr, (2) Lewis, (3) Ullrich, (4) Moore, (5) Tchakerian, (6) Zuchowski, (7) Orzel, (8) Walton. If they fully use reimbursements of \$500, then the expense is $8 \times \$500 = \$4,000$ (9) Virginia Trimble kindly offered to pay for her own expenses. (Oct.28, 2022 email). For April 2023, there are 9 Invited Speakers. The registration of (1) Renn's 1-day registration is paid by annual the APS awards budget, not by FHPP funds. (Though I think FHPP does contribute to Renn's travel, but it's not part of the FHPP Program Budget). Next, in an email Paul had informed me that (2) Miguel Ohnesorge's expenses will be paid "out of the FHPP budget directly for prizewinners." So, then there are seven other invited speakers: (3) Friedrich, (4) Folman, (5) Gearhart, (6) Crease, (7) Glasmacher, (8) Westfall, (9) Martinez. UT might partly pay for Martinez's trip, and if so, then there are six April Meeting

speakers who would get up to \$500 in reimbursement, i.e., $6 \times \$500 = \$3,000$; so, $\$4K + 3K =$ the \$7,000 we allocated.

ISSUES / TOPICS:

The Program Committee encountered some obstacles along the way:

1. We hoped that APS would have waivers for persons who will only chair a session; and they agreed to do it for one of our chairs in APS March, but not for another in APS April.
2. There were multiple problems and delays in APS April's system for sending invitation emails to Invited Speakers. For weeks, the person in charge simply did not reply to emails from FHPP and from other APS units. Finally, that person departed or was replaced with Ryan McDonald, rmcdonald@aps.org, who was far more effective and responsive. Still, those of us (such as Martinez, Westfall, Crease, et al.) who tried to find workarounds during the weeks when invitations didn't arrive had various complications.
3. Dr. Ron Folman planned to present one talk for FHPP and another talk as a technical talk; however, in the process the latter was difficult to schedule; somehow it was not sorted into a sessions, so Martinez and Halpern mediated with APS organizers, and with DGRAV, but in the end the DGRAV chair could not fit Ron's talk into a session, but we ended up placing it in session B14: Saturday, April 15, 2023, 12:09PM - 12:21PM: B14.00008: "Realization of a complete Stern-Gerlach interferometer: Towards a test of quantum gravity," Ron Folman.
4. Dr. Jay Pasachoff had kindly agreed to give a talk for Virginia's "Anniversaries" March session, however, he was ill, and first, his doctor ordered him not to travel, and later, sadly, he passed away. <https://www.nytimes.com/2022/11/20/obituaries/jay-pasachoff-dead.html>

The March session did transpire, without a replacement, since a minimum of four speakers were required in March, and with Pasachoff there were six. (There followed a list of FHPP sessions in the March Meeting 2023, Las Vegas)

**4. Report of the FHPP Secretary/Treasurer
of the Forum on History and Philosophy of Physics
FHPP Executive Committee Meeting, Minneapolis, MN, 16 April 2023**

Contents: 1. Budget Summary
 2. The 2022 officer election
 3. Essay Contest

1. Summary Budget Report for FHPP from APS, 20 March 2023:

Funds Available from APS: **\$52,212.29**

Revenue:

Annual allotment ("Dues-APS Forums-Sections") FHPP	20,000.00
Unit Share of APS Mtg:	4,917.05
Allocated Investment Income	<u>1,156.26</u>
Total Revenue:	26,073.31

Expenses:

Audio-Visual Expenses (Freeman)	411.00
Prizes & Awards-Stipends	2,075.00
Miguel Ohnesorge (Essay Contest)	1,000.00
Shraddha Agrawal (Essay Contest)	500.00
Charnell Long (invited panelist reimbursement)	<u>575.00</u>
total	2,075.00
Non-APS Staff Travel	4,881.72
for the 2022 FHPP Executive Committee meeting, April 10, 2022, NYC Marriot Marquis:	
Elisa Crull (Speaker)	1,290.62
Michel Janssen (EC)	1,089.40
Alberto Martinez (EC)	1,524.50
Ed Neuenschwander (EC)	<u>977.20</u>
total:	4,881.72
Miscellaneous (Emilie Skulberg) (invited speaker reimbursement)	<u>170.00</u>
Total Expenses:	7,537.72

NET INCOME: **18,535.59**

The \$33,676.70 difference between the “Funds available from APS” and the \$18,535.59 “Net Income” was funds carried over from previous years (due to Covid, expenses were down in 2021 and 2022). The 20 March 2023 Summary Budget Report from APS shows \$33,676.70 for Funds Available from APS on “YTD 12/31/2022.”

2. Election of Executive Committee Officers:

The 2022 election of officers for vacancies on the Executive Committee opened on October 25 and closed on November 30. Open positions included Vice Chair and two At-Large members of the Executive Committee (one designated as Early Career). Of the 4,104 FHPP members eligible to vote, only 474 (11.55%) actually voted (In the 2021 election, 353 voters out of 4,379, or 8.06%, actually voted). Among an excellent slate of candidates, the elected officers were:

Vice-Chair: Doug Stone (Yale University)

Member-At-Large: Chris Fuchs (University of Massachusetts-Boston)

Member-At-Large (early career): Joanna Behrman (Center for History of Physics, AIP)

3. 2022 Essay Contest

1st place: Miguel Ohnesorge, University of Cambridge, UK: “Newton as a Geodesist: The Problem of the Earth’s Figure and the Argument for Universal Gravitation:” \$1,000.00
Runner-Up: Shradda Agrawal, Univ. of Illinois-Urbana: “The Sunny Side of Anna Mani:” 500.00

It has been an honor to serve the FHPP for another year as your Secretary-Treasurer.

Respectfully submitted,

Dwight E. (“Ed”) Neuenschwander