

Minutes Board Meeting (December 3-4, 2024) – RFX Padua & Palazzo Bo, Padua

Present

Board members: Kristel Crombé (KC – Chair), Ken McClements (KMC - Hon. Sec.), Hana Barankova, Andreas Dinklage (AD: remote), Basil Duval (BD: remote), Eva Kovacevic (EK: remote), Mervi Mantsinen (MM), Thomas Mussenbrock (TM), Brian Reville (BR), Catarina Riconda (CR), Carlos Silva (CS), Monica Spolaore (MS), Jörg Stober (JS), Vladimir Tikhonchuk (VT), Luca Volpe (LV), Stefan Weber (SW)

Apologies

David Burgess (DB), Andrea Ciardi (ACI)

EPS2024 PC and LOC chairs: John Kirk (JK: remote), LV

EPS2025 PC and representative of LOC: Marija Vranic (MV), Alice Trägerová (AT)

APS and AAPPS representatives: Félicie Albert (FA) and Rajdeep Singh Rawat (RSR: remote)

PPCF Editor-in-Chief and Publisher: Jon Graves (JG: remote), Iain Trotter (IT: remote)

1. EPS 2024 conference – Salamanca

1.1 Report from the LOC (LV)

LV commented that the role of LOC Chair had been very stressful but reported that the conference had been a success. The city was well-prepared and inexpensive, and distances had been manageable. The LOC had never been concerned about not being able to breakeven. LV suggested that at future conferences the rooms used for parallel sessions should have a minimum capacity of 100 people to cope with varying demand for talks on the different sub-topics. He thinks that it would be useful to have more clarity on the division of responsibility between the PC and the LOC. The mobile app used during the conference (Whova) was considered to have been a success. LV acknowledged that there had been problems with the poster sessions, and that more time should have been devoted to preparation of these sessions. JS suggested that in future there should be two poster boards for each presenter (one for the poster itself and one left blank). KC expressed concern that this might lead to posters being rejected due to lack of space. VT agreed that posters should not be rejected for this reason. LC commented that more time should also have been spent seeking sponsors.

1.2 Report from the PC (JK)

JK presented his final report on EPS2024. The BSAP subcommittee was under-strength due to two withdrawals, leading to high stress levels for the remaining members. Most of the December 2023 PC meeting could have been virtual, in JK's opinion. At the conference itself, the poster prize judging had been particularly challenging. Out of 174 scheduled speakers, only 2 failed to appear at the conference. JK considers that the gender mix of speakers was equitable. However he feels that the proportion of contributed orals allocated to MCF is too low, in view of the number of bids. He agreed

that the poster sessions did not work well, and suggested that there should be at least 4m² allocated to each poster. Some participants didn't have enough time after the acceptance of abstracts to obtain visas to attend the conference. JK suggested that PhD prize talks should be moved to plenary sessions to give the winners more exposure. He mentioned that at one point three different versions of the conference programme were circulating, and that there was some confusion regarding the poster prizes. In the discussion following JK's presentation, BD commented that requests for poster presentations should never be refused unless there are good reasons for rejecting the abstract. KMC expressed concern that some recent PhD graduates may balk at the prospect of being required to give a talk to a plenary audience. AD agreed with JK's critique of the poster sessions, adding that the marble floor produced additional noise that further marred these sessions. JS felt that the QED session was too specialized to be comprehensible to a general plasma audience, while VT spoke in favour of it.

1.3 Report on the PPCF Special Issue (JG & IT)

IT commented that while the number of papers in the EPS special issue of PPCF had been dropping in recent years, the tally had risen again this year: only 10 papers had been published from EPS2023 (8 MCF, 1 BPIF and 1 LTDP) while 30 had been submitted so far for EPS2024 and 2 more submissions were expected. JG proposed that a report written by AD on Visions4Fusion at EPS2024 should be submitted for the special issue. He commented that asking plenary/invited speakers in advance to submit a paper and also having a flexible deadline had helped to push up the number of submissions. AD observed that there had been 77 plenary and invited talks, so there was still room for improvement. He also suggested that the role of AI in plasma physics could be a suitable theme for a special issue of PPCF and/or a joint session at the EPS plasma conference. VT feels that papers are not being processed quickly enough and is concerned about the low number of papers being published in the special issues specifically on inertial fusion. CS asked if it is now possible to submit papers for the special issue as letters; JG said that it is possible, but no authors had used this option in 2024. He made the point that both letters and special issue papers tend to be highly cited. LV suggested that he could write a letter paper as a report on the Spain4Fusion event at EPS2024; JG remarked that this might be suitable as a Perspectives paper in PPCF.

Action: AD and LV to consider submitting reports on Visions4Fusion and Spain4Fusion to PPCF.

2. EPS 2025 conference - Vilnius

2.1 Current status from the LOC (AT)

AT reported that registration would open on February 7 2025 and that the abstract submission system was ready to be used. It was proposed that the deadline for 4-page paper submission should be June 10 2025; BD commented that the submission deadline is normally the first day of the conference (July 7 in the case of EPS2025). JS said that

he would like to have a book of abstracts available electronically ahead of the poster sessions. MV pointed out that at EPS2024 abstracts were available in the conference app, but she agreed that they should be downloadable via the conference website as well. BD would prefer to have a pdf book of abstracts, and doesn't consider that a conference app will be necessary. MM questioned why registration was due to open on February 7, given that contributing authors would not be notified that their abstract had been accepted until March. LV pointed out that many participants would require visas; AT said that visa letters would be downloadable with registration. LV proposed that visa letters should be sent out *before* registration since it is very expensive to have to register and then be unable to attend due to not having a visa. AT suggested that registration fees could be refunded in such cases.

Action: AT to review key dates for EPS2025.

2.2 Report from the PC (MV)

MV first reported on planning for the EPS2025 special issue of PPCF. She will be the executive editor of this issue, while sub-committee chairs will be guest editors. A process for the special issue will be agreed, based on the success in 2024. For the conference itself, the provisional allocation of plenaries has the following breakdown: 10 male speakers, 5 female; 5 MCF, 4 BPIF, 3 BSAP, 2 LTDP, 1 shared; 3 speakers each from Germany, UK, USA, and 1 each from Austria, France, Poland, Spain, Sweden, Switzerland. The USA had the highest number of invited talks (11). Among device-specific MCF plenary/invited talks, JET had a highest number (5). It was noted that there are none from the Asia-Pacific region, although there was one representative from Japan on the PC. Another comment was that there are many more European talks at the AAPPs conference than Asia-Pacific talks at the EPS conference. MV presented a draft agenda of plenary and invited talks. Themed sessions are planned, e.g. an MCF session on no-ELM regimes. BD expressed concern about the number of US-based MCF invited speakers, making the point that this country currently has just one working high-performance magnetic fusion device (DIII-D). Particular concern was expressed regarding the selection of Alex Creely (CFS, USA) for a plenary on SPARC and ARC. MM commented that if private fusion is to be awarded a plenary, she would rather allocate this slot to a company with actual experimental results to show. JS expressed astonishment that SPARC was being allocated a plenary. AD wanted to know what was novel in the proposed SPARC/ARC plenary. MV emphasized that this selection had been made on scientific merit, and that she would provide more information to the Board on the reasons for the selection, but wouldn't override the decision of the MCF sub-committee. She said that 6 weeks is the absolute minimum period needed for the PC to make its plenary/invited selections because the initial list of nominations is very unbalanced. She also commented that she hadn't been warned in advance that the Asia-Pacific region should be represented among the plenary/invited speakers. MS asked about the number of joint sessions; MV said that there would be a BPIF/BSAP joint session. LV wanted more clarity on whether or not private companies can bid for

plenary/invited talks. JS commented that this is a grey area since there are many contributions from academia and state-funded fusion laboratories to privately-funded projects such as SPARC.

Action: MV to brief Board on reasons for selection of SPARC talk for plenary.

3. EPS 2026 conference - Edinburgh (KMC)

KGM gave a brief presentation on planning for this conference. MHD expert Moritz Linkmann (University of Edinburgh) has joined the LOC. A logo for EPS2026 has been proposed, combining references to the EPS, plasma physics, Scotland and Edinburgh. It is intended that evening events will comprise a welcome reception at the conference venue (Monday), a town hall-style discussion (Tuesday), a public lecture by University of Edinburgh theoretical physicist Neil Turok (Wednesday), and a gala dinner at the National Museum of Scotland (Thursday). Ideas for planned excursions include visits to the Royal Observatory Edinburgh and walking tours of the Old Town. LOC Chair Fulvio Militello (UKAEA) visited the venue recently and was satisfied that the areas designated for poster sessions will have plenty of space for both posters and presenters. He also found that there was no shortage of places for participants to get lunch in the vicinity of the conference centre.

4. EPS 2027 conference – Lausanne (BD)

BD gave a very brief update on plans for this conference, provisionally scheduled for the week of July 4-9 2027. Everything is in-hand. BD is looking for cheap solutions for lunch.

5. EPS 2028 Conference – Stuttgart (BR)

BR has been in contact with Alf Köhn (University of Stuttgart) to ask if he would be willing to be LOC chair.

6. EPS 2029 Conference

There are no specific proposals yet for a venue in 2029. AD suggested Gdansk in Poland. LV will contact the group in Catania (Sicily) to see if a conference in Taormina is possible. Another possibility is Thessaloniki in Greece. AD mentioned that there had been problems with a proposal to take one of the earlier EPS plasma conferences to Crete; HB observed that a recent European Conference on Plasma Diagnostics had taken place there, and that transport had been complicated. VT expressed doubt that there were any venues on Crete capable of accommodating the usual number of attendees at the EPS plasma conference (~700-800). It was agreed that Athina Kappatou (IPP Garching) should be consulted on the idea of taking the conference to Thessaloniki (she is originally from that city).

Action: KC to consult Athina Kappatou on the possibility of EPS2029 taking place in Thessaloniki.

7. Communications from representatives of AAPPS and APS (RSR and FA)

RSR presented a report on the AAPPS-DPP. In August 2024 the division had 3390 members, with the highest numbers in India, China and Japan. Mitsuru Kikuchi (Osaka University, Japan) is currently CEO and RSR is Chair-Elect. At the AAPPS-DPP conference in November 2024 there were 558 presentations, comprising 29 plenary, 269 invited, 137 contributed orals and 123 posters. The next conference will take place in Fukuoka, Japan, September 21-26 2025.

FA gave a presentation on the current APS-DPP leadership, new APS-DPP Fellows, and a brief overview of the 2024 APS-DPP conference. She commented that live-streaming had been provided at this meeting and that the APS was debating whether to keep a virtual element. Even with virtual participation allowed, this meeting remains much larger than the EPS plasma conference, with more than 2000 in-person registrations in 2024. In the call for contributions, the topics of diagnostics, computing and artificial intelligence/machine learning are listed as the first three subcategories under each main plasma category to create a uniform approach across the conference programme.

At this stage the Board went into "closed session"

1. Minutes of previous meeting (KMC)

The minutes of the previous full meeting of the Board on July 2 2024 were approved.

2. Innovation Prize (HB)

It was noted that both EK and TM will leave the Board in 2025, raising the issue of whether HB would have to be in sole charge of this prize in future years. KC said that at least one LTDP person would join the Board that year, through co-option if necessary. She reported that the EPS President wants prizes to be awarded only if there are at least 4 nominations, not all of the same gender, and that sometimes there are fewer than this for the Innovation Prize. MM commented that the EPS Council also want calls for prize nominations to be sent out at least 4 months before the deadlines. AD proposed that the Board should complain to the central EPS about the imposition of unhelpful rules such as these. CR spoke against the proposed rule that not all nominees should be of the same gender.

3. PhD Prize (MS)

MS reported that nominations had closed on November 22 2024 and shared a list of nominees. These have a better gender balance than in previous years. As agreed last year, it is intended that there will be 5 judges on the evaluation panel rather than 4 as in previous years. The panel is free to organise itself in terms of how the judging is

carried out. LV commented that since there are 18 MCF nominations there should perhaps be one more MCF judge. JS expressed concern that MCF candidates may have a significantly lower chance of winning due to the number of judges with expertise in this area not being commensurate with the number of MCF nominations. BR countered this by remarking that we should have faith in the jury to know a good thesis when they see one. CS commented that the challenge of finding willing panel members makes it difficult to ensure an equitable balance across areas of expertise. A list of suggested panel members was discussed and revised.

4. Alfvén Prize

AD first reported that one of the nominees had died. Following a brief discussion, it was decided that this person should be eliminated from consideration. It was noted that all of the nominees were men, despite attempts to encourage nominations of women. Following a *tour de table* discussion, the Board took a vote from which Michel Koenig (LULI, France) emerged as the winner for his contributions to the experimental study of laser-plasma interactions applied to laboratory astrophysics, high-energy density physics, and inertial confinement fusion.

5. Website for 4-page papers (BD)

BD commented that construction of this website was a massive challenge due to the fact that the raw data were provided to him in an excel table in which none of the columns were correct and metadata were invisible. LV, as LOC Chair for EPS2024, said that he would report this to CRPU in Salamanca, which had been responsible for compiling the data on contributed papers. The EPS2025 LOC has told KC that they have this issue under control; KC will provide BD with the relevant contact on the LOC. BD reported that around 150 contributed papers had been submitted. He wants to make the writing of 4-page papers compulsory for student attendees from SPC. MM noted that BD had been managing the publication of the 4-page papers for some time and asked if he was willing to continue; BD replied that he wouldn't stop doing so until or unless the system were replaced with Indico. MM suggested that the system should be tested ahead of the EPS conference by populating it with empty documents and metadata; JS made the further suggestion that it could be tested by uploading abstracts. **Action:** KC to provide BD with contact on the EPS2025 LOC for 4-page papers.

6. Early Career Prize (MM)

MM gave a brief update. This year the call for nominations was issued earlier than last year; a reminder will be sent out in late January 2025. It is intended that the Early Career Prize-winner will be invited to give a talk on their work on the first morning of EPS2025.

7. Status of PC for EPS 2026 conference (report from MCF, BPIF, BSAP and LTDP subgroups)

Nominations for this PC were discussed. It was agreed that one of the nominees for the MCF subcommittee, Costanza Maggi (UKAEA), should be excluded from consideration because she is a candidate for election to the Board. There was a discussion of nominees for the MCF subcommittee with the primary aim of ensuring adequate coverage across different areas of expertise within MCF. It was unclear whether some MCF nominees who were provisionally selected were willing to join the PC; KMC agreed to contact them to check.

Action: KMC to contact PC nominees whose willingness to join committee is unclear.

8. Open discussion

8.1 Format and location of future December PC and Board meetings

Around 90% of PC members had attended the Padua meeting, vindicating the decision to choose this venue. MS was thanked for her efforts to make this such a success. It was agreed that a different venue should be chosen in 2025 to relieve MS of having to organise it again. Two possibilities were discussed: IPP Garching and Madrid. Garching has two disadvantages: (i) flying to Munich is generally expensive; and (ii) the Board member based there (JS) is standing down in 2025, with no guarantee that Garching will have a representative on the newly-elected Board. LV pointed out that as the host of PC and Board meetings at his university in Madrid he wouldn't have to rent out rooms for this purpose. Madrid thus emerged from the discussion as the more likely venue.

Action: JS and LV to investigate further options for holding December 2025 PC and Board meetings at their respective institutes.

8.2 Board elections: start of next cycle

Ten members of the present Board will stand down in 2025 (ACI, AD, BD, DB, EK, TM, CS, JS, VT and SW). There have been 13 nominations for membership. MM reminded the Board that the statutes stipulate 12 elected members, up to 3 co-opted members, and *ex officio* members comprising the chairs of any sections. SW, EV and BR were all co-opted, and the first two of these were standing down so it will be possible to co-opt two members following the next round of elections. During the meeting DB indicated that he did not wish to continue as a Board member; this means that there will be 6 vacancies for elected members. It was agreed that the election should take place between the start of January and the end of March 2025. There was some discussion of whether nominees should be asked to provide a statement saying what their contribution to the Board would be. It was agreed that it would be sufficient to link the available nomination forms, unedited, to a public web page listing the names (but not the genders), fields of expertise, countries of residence and affiliations of the candidates. KMC agreed to generate the electronic voting form itself. The central EPS will need to send out the call for votes since only they have the email addresses of all individual EPS members (in principle, any member can vote although only those with

some link to plasma physics are expected to do so). The Board was reminded that nominees need to indicate that they are willing to join the Board and that their institutes need to be willing to pay for their travel costs to attend Board meetings. BD wanted to make a post-deadline proposal of an SPC colleague for inclusion on the list of candidates and BR indicated that he also wished to make an additional proposal. JS and VT argued against allowing this, and the Board decided that there would be no additions to the list of candidates.

Action: KMC to generate electronic voting form for Board elections using Google Docs.

8.3 Report from inclusivity group (MM) & visibility of DPP (all)

MM reported on planning for the Women in Plasma Physics (WiPP) lunch at EPS2025. A room designated for this lunch at the conference venue can accommodate up to around 150 people, with 5-8 at each table. CR proposed the introduction of a modest fee to attend this event, so that participants are less motivated to leave after the lunch. KMC reported that he had asked UK Industrial Fusion Solutions (UKIFS) to sponsor the event, but it wasn't yet clear whether they were willing to do so. If sponsorship cannot be obtained EPS-PPD will underwrite it. LV mentioned that ELI Beamlines had sponsored the WiPP lunch in 2024. He also mentioned that at the lunch itself there was no attempt to check that people turning up had actually registered, as they had been asked to do.

9. Any Other Business

There was no other business.