

**Minutes of the
AMBER Collaboration Board Meeting at CERN
on December 3, 2024, 15:00 Geneva time**

Attendance: C. Azevedo, B. Badelek, J. Berenguer, A. Bressan, K. Brinkmann, M. Chiosso, O. Denisov, N. Doshita, H. Fischer, S. Groote, A. Guskov, E. Kabuß, B. Ketzer, S. Levorato, J. Lichtenstadt, K. Liu, J. Matousek, T. Matsuda, J. Novy, S. Paul, C. Quintans, A. Sandacz, P. Zuccon,
J. Friedrich, M. Veit, T. Pöschl, G. Mallot

Guests: F. Maas, M. Mihovilovic

Apologies: J. Bernauer, A. Cicuttin, R. Kurjata, N. Masi, B. Seitz, D. Neyret, O. Kiselev

Absent: S. Dasgupta, A. Gerbershagen, D. Keller, D. Panzieri, H. Suzuki,

Sergei Donskov, Aleksei Dziuba, Vladimir Saleev, Serge Smirnov and Mikhail Zvertzaev had to leave AMBER CB, thanks a lot to all of them !

The agenda was:

1. Welcome, Attendance and Apologies
2. Approval of Agenda
3. Approval of Minutes
– CB meeting November 7, 2024
4. Communications by SPs
5. Addendum to MoU
6. Communications by CB chair
7. Request for associate membership
8. New group: Ljubljana
9. TB renewal
10. Preparation of 2024 run
11. Report from SP search committee
12. PAW25
13. AOB

2. Approval of Agenda

The items on the agenda were approved without changes.

3. Approval of Minutes

Few typos and language improvements were applied already to the version linked to the indico page. The minutes of the CB meeting on 7.11.2024 were approved without further changes.

4. Communications by SPs (given by Oleg Denisov)

a) FRC meeting on 15.11.24

- Report on AMBER status given by Jan highlighting the APX results, the planned improvements in the beamline for CEDARs and the update of the AMBER phase-1 running plan (slides linked to indico page of CB meeting)
- Oleg reported on the status of finances
- FRC endorsed the 2025 draft budget and the 3500 CHF per capita contribution
- For the outstanding Russian contributions to AMBER some money may come from CERN

b) Meeting with SPSC referees on 25.11.24:

The setup for 2025, the planning for the TPC and the beam time request was discussed with the referees. More details given in Jan's contribution from Tuesday morning.

c) Seminar in Beijing:

Oleg gave a seminar, which had a large attendance and was well received.

d) Man power/Projects survey:

Only half of the groups answered, SPs will address all remaining groups individually

5. Addendum to MoU

In the November CB meeting Bernhard Ketzer introduced the group from the Helmholtz Institute Mainz (HIM) on behalf of Frank Maas and the CB gave unanimously the mandate to SPs to prepare an addendum to the MoU.

The text of the addendum was presented by Jan.

After short discussion of the draft **the CB accepted the addendum to the MoU unanimously!**

6. Communications by CB chair

Dates of 2025 collaboration meetings

1. CM meeting Wed 5.3.-Fri 7.3.24, CB Thu 6.3.24 15:00 Geneva time
2. **PAW25** Mon 2.6.-Wed 4.6.25 in **Kloster Irsee**
CM meeting Thu 5.6.-Fri 6.6.25 in Garching, CB Thu 5.6.25 15:00 Geneva time
3. CM meeting Wed 24.9.-Fri 26.9.25, CB Thu 25.9.25 15:00 Geneva time
4. CM meeting Wed 10.12.-Fri 12.12.25, CB Thu 11.12.25 15:00 Geneva time (remote)

7. Request for associate membership)

Jan introduced the request by **Hector A. Pol** from the **University of Santiago de Compostela** and **José L. Sanchez** and **Saul B Novo** from the **University of Coruna** for associate membership according to our new rule in the bylaws and presented the proposed agreement.

After some questions a vote was performed on the presented letter:

The CB agreed unanimously to the letter for an associate membership.

8. New group: Ljubljana

Miha Mihovilovic presented his interest to join AMBER with his group from **Jozef Stefan Institute in Ljubljana (Slovenia)**.

There is clear interest in AMBER, especially in the proton radius measurement. The group would consist of three seniors plus students.

The contribution was well received, several groups were already collaborating with Miha and stated clear support for the request.

The CB gave the mandate to the SPs to continue discussion with the group with the possibility to prepare a proposal for an Addendum. In the next CB details should be given.

9. TB renewal

The first mandate of most (10 out of 11) TB members ended at the end of 2024. In addition two members had to be replaced: **Evgeni Maev and Martin Zemko**. **Kun Liu** has a double mandate as TB member and ex-officio DY PC, he stepped down.

Proposal from TB:

Enlarge TP to 12 members. As new members **Vincent Andrieux, Nikolay Anfimov, Igor Konorov and Stefano Levorato** were proposed. For all others a second mandate was proposed.

A vote took place on all persons together.

All proposed members were mandated unanimously by the CB.

TB for 2025:

Name	Mandate	End of Mandate
Maxim Alekseev	second	December 2026
Bernhard Ketzer	second	December 2026
Robert Kurjata	second	December 2026
Christophe Pires	second	December 2026
Vladimir Poliakov	second	December 2026
Björn Seitz	second	December 2026
Fulvio Tessarotto	second	December 2026
Norihiro Doshita	first	September 2025
Vincent Andrieux	first	December 2026
Nikolay Anfimov	first	December 2026
Igor Konorov	first	December 2026
Stefano Levorato	first	December 2026

10. Preparation of 2025 run

Contributions from Moritz Veit, Stefano Levorato and Jan Friedrich

Moritz went through the list of equipment needed for PRM:

- For the detectors from the current spectrometer, namely **BMS, SciFi, Hodoscopes, MWPC, DCS**, lot of work has to be/is done, goals seem achievable.
- For **TPC** the timeline of April 2025 is pretty tight, more manpower is needed, might be feasible.

- **GEM** production is ongoing, problem is integration into AMBER DAQ.
- For **ECAL2** work is ongoing on the readout, we might use central the 10 by 10 elements.
- **Infrastructure** would need more engineer support.
- **Soft/Analysis:** Also here there are many open projects, some work was started for decoding and reconstruction, but clearly manpower is missing.

SFH detectors:

- **Jan** presented the **timelines** for the production of one detector, very tight schedule, ready in autumn 2025. More detectors would need more manpower.

Quite some discussion on these detectors, also about the future after Stephan's retirement. Some inputs from CB members were given, will be discussed in smaller meetings.

FriDAQ:

- Critical for 2025. On short term more manpower is needed. The future of DAQ development is currently unclear. Short term and long term solutions needed.
- For the short term some help is envisaged:
The CB unanimously supports the engagement of Dima Levit as a freelancer on the FriDAQ project, and gives **the mandate to the spokespersons to decide on the concrete agreement.**
- A task list will be worked out by Igor, and reviewed together with TC and FE coordinator. With the projects covering in part the core FriDAQ (TUM) and detector specific parts (other AMBER groups), the finances will be split 50/50 between TUM and AMBER Common Fund, up to a total of 20kCHF.

ALPIDEs (Stefano):

- Dedicated meetings started, each focussing on special aspects e.g. mechanics, collecting all existing information. Some new resources found e.g. help from Trieste workshop. But it is not yet clear where the assembly center could be.
- Some money request of 30kCHF for the production of the Flex PCBs was given.
- **Next:** Dedicated meeting with Torino-Daresbury-Freiburg-GSI-Trieste to plan the further steps still on 2024.

This report also caused an intense discussion, which became quite general. It was asked to have detailed information on the outcome of the survey of contributions and plans from all AMBER groups asap. The money request needs more clarifications, contributions from AMBER groups are asked for.

In total this item was the **most difficult part** of the meeting with many discussions. Some good inputs were provided, but there is a lot of undermanned work to be done.

Moritz ended the statement:

Man power is required now and all AMBER collaborators are ask to switch their priority to the APX and PRM projects and contribute into a successful future of AMBER!

Added after the meeting: Informal feedback from SPSC referees

Dear Oleg and Jan,

*The SPSC has approved your request for beamtime in 2025 following data taking by MuonE. The committee is closely monitoring the progress toward finalizing the experimental setup for the Proton Radius Measurement. The committee is eager to see the first data collected with the complete setup before the end of 2025, as this would provide confidence in the feasibility of achieving your physics goals in case the 2026 run is approved. **The committee acknowledges the progress made so far and strongly encourages the collaboration to prioritize completing the remaining components (TPC, ALPIDE, SciFi, and DAQ).***

11. Report from SP search committee

Search committee: Chiara Alice, Carlos Azevedo, Barbara Badelek, Andrea Bressan, Kai Brinkmann, Nori Doshita, Jozef Novy

Carlos gave a short report on the **strategy:**

All eligible members (full members except students and technicians) were contacted. Persons with no clear NO or YES have been contacted by videoconference.

Current status:

Candidates with long experience in AMBER were identified. They are negotiating with their institutions the possibility of a sabbatical leave. Will be clarified beginning of next year.

It is planned to present the candidates in the next collaboration meeting.

12. PAW25

Jan Friedrich gave a short summary of the current status:

The IAC is being formed. When a preliminary list of speakers is available a funding application will be submitted to DFG.

A webpage will be setup soon with information on travel and booking.

13.AOB

There was no AOB.

End of meeting: 18:45