

Minutes of the Board meeting 2022-03 on 19 October 2022

Time of the meeting: 19 October 2022 13h15

Place of the meeting: SCNAT

Indico: <https://indico.cern.ch/event/1203230/>

1. Welcome and agenda

Michele Weber, the CHIPP Chair is travelling to the Stets; for this reason Ben Kilminster is chairing the meeting. Kilminster welcomes the Board members, the honorary Board members, and the observers to the Board.

The Chairman welcomes the new Board members, two voting members: Ilaria Brivio, new Professor at the University of Zurich and Wolfram Erdmann from PSI, the new appointed CHAPS observer, Lucio Mayer, from the University of Zurich and Francesca Stocker who accompanies Laurent Salzarulo as representatives from SERI.

The agenda is approved.

ADMINISTRATIVE ITEMS

2. Apologies and Proxy votes

Board members with voting rights (as of 1 October 2022): 73

Present (in-person and via ZOOM): Antusch, Beck, Braccini, Canelli, Donegà, Erdmann, Greljo, Golling, Grazzini, Isidori, Kilminster, Kreslo, Kunz, Montaruli, Müller, Pozzorini, Rubbia, Schneider, Schramm, Serra, Sfyrla, Shchutska, Spira, Sanchez-Nieto, Sgalaberna, Soter, Weber, Wu.

Other participants: Bay (Prof. Em.), Benelli (Admin.), Mayer (Obs. CHAPS), Refregier (Obs. CHAPS), Salzarulo (Obs. SERI), Sommer (Obs. SNF), Stocker (Obs. SERI), Türler (Obs. SCNAT)

Apologies: Bourquin, DeCosa, Seidel, Stoffer. The PSI community could not attend the Board meeting because the PSI 2022 Workshop had been organised on the same days.

The Chair details the proxy votes announced before the meeting¹².

Quorum: 24 votes (= 1/3 of the Board members; Art. 24.1 Statutes); voters present: 28 present + 8 proxies = 36 → The quorum is reached.

3. Minutes of the last meeting (2022-02 [June 2022]).

The Chair asks for comments concerning the minutes of the previous meeting. Since there are none, the Chair invites the Board to approve them. The minutes are approved and will be published on the [CHIPP](#) website. Ben Kilminster explains the procedure for electronic voting via ZOOM.

¹² Wolfram Erdmann for Klaus Kirch, Michael Spira for Malte Hildebrandt, Lesya Shchutska for Olivier Schneider, Ben Kilminster for Paolo Crivelli, Igor Kreslo for Saverio Braccini, Mauro Donega for Rainer Wallny, HansPeter Beck for Michele Weber, Florencia Canelli for Cristina Botta

DECISION ITEMS

4. Budget and Activities 2023

Kilminster introduces the planned activities and budget for the year 2023. As in the past, CHIPP has a list of planned activities on the following themes: science, communication and outreach, funding, and association. The presented budget has a planned expense of 155 KCHF covered by the income of 90 KCHF from membership fees, 20 KCHF of support for the EPPCN from SERI and CERN, and thankfully around 39 KCHF of support from the SCNAT. The main activities for this year will be the PhD Winter School and the Sustainability Workshop in Sursee. CHIPP will continue its engagement on the SCNAT web portal, publishing news, articles, and events of interest to the physics community, thanks to the collaboration of a science journalist. The remuneration of the journalist together with the IPPOG membership should be covered by a SCNAT grant (Dialog with society). A deficit of around 5 KCHF is foreseen. This can be supported by the estimated start of year assets of ~35 KCHF.

Kilminster reports the SCNAT funding contributions for the year 2023:

- | | |
|--------------------------------|-----------|
| ▪ IPPOG membership. | 3000 CHF |
| ▪ Dialog with society | 9000 CHF |
| ▪ CHIPP Winter School 2023 | 10000 CHF |
| ▪ Sustainability Workshop 2023 | 9000 CHF |
| ▪ FILM Ghost Particle | 8000 CHF |

The sustainability Workshop (14-16 June 2023) is organised by the ERC CHIPP members with the help of Angela. The indico page will be published soon. During the workshop there will be an introduction to Sustainability, Sustainability in Particle Physics and Industry with the objective of defining sustainable development goals for particle and accelerator physics research in Switzerland. Part of the Workshop will be organized as a CHART/CHIPP common projects. The CHIPP Board and Plenary meeting will be held during the Workshop.

The EB proposes that for the year 2024 the approval of the CHIPP activities will be submitted to the Board in the summer Board, before the funding requests to the SCNAT.

The Board with 29 votes in favour and 1 abstention:

Approves the CHIPP activities for 2023,

Approves the CHIPP budget 2023 resulting from the activities, and

Approves the 2023 membership fees for individual members and for institutions.

5. Nomination for submission to SNF/SERI of the Swiss NuPECC representative

NuPECC: Nuclear Physics European Collaboration Committee

Contrary to the name “nuclear physics” (not a major thrust in Switzerland) in the NuPPEC acronym, NuPPEC actually has a much broader scope. There are many research lines in Switzerland that fall under NuPPEC and we thus profit from close collaboration with and support of this organization. E.g. the low-energy program, medical applications, neutrinos, light nuclei, heavy ions, muonic atoms (and in principle the whole radiochemistry). Furthermore, facilities are a major subject, and PSI obviously is very relevant (especially with the new developments HIMB/TATTOOS) in the overall roadmaps and long-range plans.

The election of the Swiss representatives in NuPECC belongs to the CHIPP Board. The election is submitted to SERI/SNF for approval. Bernd Krusche (U. Basel) was the Swiss representative in the beginning of the Swiss membership in NuPECC (2012); he held this position until June 2022 when he died. The call for nomination converged with Klaus Kirch as candidate and he accepted to stand for election.

The Board elects with 30 votes in favour and 1 abstention:

Klaus Kirch (PSI) for a first term as Swiss representative in NuPECC from January 2023 to December 2025.

6. Election of the CHIPP Deputy Outreach Deputy Officer

The Board at its meeting in Fribourg 16 June 2022 has decided to call for nominations of a Deputy Outreach Officer. This position is meant to help the Outreach chair in the many CHIPP outreach activities and ensure their continuity.

Elena Graverini (EPFL) was nominated and accepted to stand for election. She is working in LHCb with an Ambizione grant position in EPFL.

The Board elects with 28 votes in favour and 1 abstention

Elena Graverini (EPFL) for a first term as CHIPP Deputy Outreach and Education coordinator (Jan 2023 – Dec 2024); for the duration of her function the Board unanimously asks Elena Graverini to participate in the Board meetings (without voting rights).

7. Nomination for election of the Swiss R-ECFA representative

ECFA: European Committee for Future Accelerators The election of the Swiss representatives in ECFA belongs to the CHIPP Plenary, based on a recommendation by the Board. (Article 19, litt. e). The present Swiss representatives in ECFA are:

- **Mike Seidel** (PSI & EPFL), Restricted ECFA and Plenary ECFA member until Dec 2024, 2nd term
- **Frédéric Blanc** (EPFL), Plenary ECFA member until Dec 2024, 2nd term
- **Annapaola de Cosa** (ETHZ) Plenary ECFA member until Dec 2025, 1st term
- **Philipp S. Wellenburg** (PSI), Plenary ECFA member until Dec 2024, 1st term

Mike Seidel asked to step down from his position as R-ECFA and P-ECFA effective immediately.

The Board decides to call for nomination. Michele Weber as CHIPP Chair will replace Mike Seidel ad-interim until an election for a new Swiss representative will take place in February 2023.

DISCUSSION ITEMS

8. Third party funding for Swiss Particle Physics

The chairman introduces the discussion on funding for fundamental science in Switzerland. For Particle Physics, there was some bad news in the last funding cycle from SNF, as in the previous term there were many grants which were cut to zero instead of being slightly cut. In the last year, CHIPP has been trying to address this problem organizing a discussion with SNF, collecting statistics, and coming up with suggestions. The main problem is the conflict between the funding from FLARE that CHIPP is getting for long term infrastructures and experiments and the corresponding person-power that should work on them, but which is sometimes not funded via the SNF grants. Projects in particle physics must run for a long time; this requires many phases of operation: research, prototyping, construction, operation, and then making use of the data (analysis). If a research group all of a sudden has its funding cut, it becomes very difficult to participate consistently in these long-term projects.

An important part of the routine work is done by students, not by technicians (that can be funded by the SNF); the groups were used to having a percentage of the students' working time funded via the SNF. This was to ensure the students learned how to manage an experiment in every preparation and running phase and covered the commitments (MoU) that Switzerland had with the experiments. The SNF values very much the innovativeness and originality in assigning the grants, but a part of the indispensable work done to maintain the operation of a project is not innovative or original. One solution proposed by the Board is to add to the SNF valuable points for evaluation of the grants, the commitments and the importance covered by the student in an experimental collaboration. This could be addressed considering the MoU with the experiments, the Authorship constraints from the experiments and the CHIPP prioritization document. Another solution proposed by the Board is to attach a "student working grant" to the FLARE requests for the corresponding project.

The CHIPP Theory Community had many problems with their grants being refused recently; this really prevents the continuity in the calculations needed by the experiments to continue the data analysis or the feasibility studies necessary for experiments to be approved.

A big improvement to the procedure could be to allow for feedback from the requesting Professor once he/she receives the comments of refusal from the SNF before closing the request. Sometimes the comments sent as explanation for the refusal of a grant from the referees are not very understandable or can be solved very quickly with a comment from the applicant, avoiding the discontinuity of the grant.

CHIPP proposes to SERI/SNF the grant selection techniques adopted by other countries.

This summer at the SPS Annual meeting, a discussion was organized by Gotsman, Weber and Giamarchi to cover this problem for all big science projects, not only for Particle Physics. An article about it will be published soon on the SPS Newsletter.

Marc Türlér, the SCNAT observer, explains that this problem has been detected in several committees from other scientific disciplines, and the SCNAT commits to being part of the discussion with the SNF to alleviate the discomfort in this funding topic.

Cornelia Sommer, the SNF observer, assures the Board that the suggestions will be taken into consideration and if possible, implemented. The suggestion to have more expert members in the panel in order to evaluate the grants is welcomed; this will ensure a fair and better evaluation. A big constraint nevertheless remains, which is that the total money allocated for grants is not increasing at the same pace as the requests.

CHIPP EB will collect the feedback from the Professors that applied for SNF grants.

9. FLARE requests

Ben Kilminster presents the CHIPP Tables underlining the funding requests that the PIs will submit in November 2022. The projects that have a funding request this year have been requested to send the Board a slide with a short description of the experiment and the use of the funding requests another slide with the submitted business plan to FLARE. The following presentation can be found in the [indico](#) page of the meeting:

- Michele Weber / Igor Kreslo (DUNE)
- Mauro Donega (Computing), with report (Agenda item 9)
- Paolo Crivelli (GBAR)
- Paolo Crivelli (NA64)
- Klaus Kirch (n2EDM)
- Federico Sanchez Nieto (T2K-HyperK)
- Laura Baudis (DARWIN)
- Laura Baudis (LEGEND)
- Nicola Serra (SHiP)
- Nicola Serra (LHCb)
- Rainer Wallny (Mu3e)

The Board decides to maintain the project's classification in uncuttable / flagship / fair-share.

The Board will prepare the full update of the FLARE tables in view of 2025–2028 FLARE prioritization (assuming FLARE continues); AB will collect the information during 2023/2024.

10. FCC/CHEF Working group report

The 2020 European particle physics strategy update concluded that 'an electron-positron Higgs factory is the highest-priority for the next collider. For the longer term, the European particle physics community has the ambition to operate a proton-proton collider at the highest achievable energy.' Swiss particle physicists have started organising themselves towards participation in these long-term activities around a structure called 'CHEF' (CH Experimental research at the FCC).

CHEF provides a national structure for longer-term engagements in instrumentation work, enhancing the attractiveness of this area vital to any future fundamental experimental activity.

CHEF establishes a platform to take advantage of synergies in detector developments and to promote applications in other fields.

CHEF serves as a centre to enable a coherent strategy for defining the physics goals and deriving instrumentation requirements.

CHEF acts as a collaborative link to CERN and efforts in other countries, and as a communication channel to the public.

CHIPP has prepared two documents:

- a CHEF concept explanation, with the points as indicated above, shared with SERI.
- a bottom-up project list; this document aims at collecting interest for participation in concrete projects and collaborative activities to establish a strong program of work packages. The text has been available on Overleaf for the CHIPP Board members to participate in the editing. At the moment, 20 PhD projects have been identified.

The main goal is to finalize the document by the end of October, and it will be used to initiate the funding negotiations with Rectorates and funding agencies.

11. Gravitational Waves Working group report

Steven Schramm (University of Geneva) reports on the Gravitational Waves Working Group, [link](#). Schramm introduces the Gravitational wave spectrum showing the importance of combining space-based and ground-based interferometers to be able to cover all of it. He updates the Board about the ET successful results of the INFRA-DEV grant, the plan to apply again for the INFRA-TECH grant, and the final discussions between Belgium and Sardinia to be the hosting site. LISA is in a crucial moment, having the final adoption document approved by the end of November. In this document, there will be a study on the possible sources that LISA can detect with which Signal/Noise ratio.

The outreach communication on GW has been postponed for the moment because of a very pressing deadline for the grants; now the outreach and communication is high on our list.

The 24 October there will be a meeting for the Gravitational Working Group.

12. CHIPP computing report

Mauro Donegà (ETHZ) presents the CHIPP Computing [report](#).

Switzerland needs a membership for the GRID computing: 25k CHF for EGI membership and 20k CHF for 10% FTE-equivalent salary. Historically it was covered by SwissUniversities via dedicated associations (SWiNG, EnhanceR). SwissUniversities ended the funding. EnhanceR needs to end the membership by 31.12.2022 if no funds are found. SERI will not cover this cost in the future because this funding line was set to put in place a structure between institutions to ensure the fundings. One of the results of this project was EnhanceR.

MW will contact SwissUniversities again to find a solution.

Donegà presents the situation of the Tier2 at CSCS. Piz Daint is to be completed in April 2023. Started the commissioning of two virtual Clusters Mont Fort and Mont Gele on the ALPS system. Final commissioning of about 60% of the system on going (48 nodes out of ~80) the system is at present able to deal with all workflows. The pledges for 2022 were not met from all experiments: CMS is on average fulfilling the pledges, while ATLAS and LHCb are still on their way to catch up.

Pledges for 2023: ALPS is expected to provide a growth of about 30% in computing power and about 20% in storage per year. At present the growth is limited to about 20% for both computing power and storage. The growth for 2024 year will be re-discussed, possibly taking into account the initial lower growth.

The plan is to have a “first review” of the performance of ALPS around the end of the year 2023. The collected information will be considered for the future CA (beyond 2024) and the FLARE funds destination (beyond April 2025).

INFORMATION ITEMS

13. New professorships at CHIPP institutes: report from each institute

EPFL: The new professor at EPFL will start on January 1, 2023: Radoslav Marchevski. He is a member of the NA62 experiment, and will create there a new EPFL group. He will join LHCb when he starts at EPFL.

14. A.O.B.

Zuoz school: Michael Spira reports on the school held this summer after two years of postponing because of the COVID. The school was exceptionally well attended, students and lecturers were very happy.