Swiss Institute of Particle Physics

an Association according to Swiss law

Minutes of the Board meeting 2020-02 on 27 August 2020

Time of the meeting: Thursday, 27 August 2020, 17h00-22h30
Place of the meeting: Hotel Belle Epoque Victoria, Kandersteg
Indico link: https://indico.cern.ch/event/946385/

1. Welcome and agenda

Rainer Wallny, the CHIPP chair, welcomes the Board members, the honorary Board members and the observers at the Board. The Chairman welcomes the new Board members: Dr Andrii Tykhonov (UniGe), Lea Caminada (PSI/UZH), Martin Hoferichter (UniBe), Prasenjit Saha (UniZH), AnnaPaola De Cosa (ETHZ) and Paolo Crivelli (ETHZ). The agenda is approved.

ADMINISTRATIVE ITEMS

2. Apologies and Proxy votes

Board members with voting rights (as of 25 August 2020): 66
Present: Beck, Braccini, Canelli, Chapochnikov, Colangelo, Crivelli, Durrer, De Cosa, Grazzini, Hildebrandt, Hoferuchter, Isidori, Kilminster, Kirch, Riva, Sanchez Nieto, Schneider, Seidel, Sfyrla, Shchutska, Spira, Tykhonov, Wallny (Chair), Weber, Wu.

Other participants: Benelli (Admin.), Blondel (Prof. Em), Bourquin (Prof.Em), Gallo (Obs. SNSF), Haefliger (Obs. SERI), Kreslo, Schopper (SPS), Türler (Obs. SCNAT), Müller K., Donega M, Soter A.

Video conference: Baudis, Caminada, Dissertori, Golling, Grab, Iacobucci, Kotlinski, Lauss, Maggiore, Montaruli, Riotto, Rivkin (Prof. Em), Serra.

Apologies: none.

The Chair details the proxy votes announced before the meeting[1].
Quorum: 22 votes (= 1/3 of the Board members; Art. 24.1 Statutes); Votes present: 25 present + 3 proxies + 12 electronic votes = 40 ➔The quorum is reached.

3. **Minutes** of the last meeting (2020-01 [February 2020])

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.

[1] Malte Hildebrandt *for Stefan Ritt*, Michael Spira *for Adrian Signer*, Christoph Grab *for Adrian Biland*, Michele Weber *for Igor Kreslo*

DISCUSSION ITEMS

4. European Strategy in Particle Physics

Following the discussion previously held at the Plenary session in the morning with the presentation of M. Shapochnikov[1], the Board expressed of the opinion that the SHiP project should be pursued, despite the non-favorable decision of the CERN management and CERN Council. This will be done by presenting the physics case of SHiP in the CHIPP Roadmap.

Blondel presented the news about the FCC project[2]. There is the aim to start collaborations for the experiments in 2024 to be ready for the next Strategy Update. The EB will study the possibility of organizing a dedicated Swiss FCC workshop and it's willing to keep the community informed about future FCC related actions.

Sanchez expresses his disappointment regarding what in his opinion is an undermining of the neutrino community in the EPPSU document. Both USA and Japan facilities are mentioned with a slight preference for DUNE with no discussion or explanation of the physics motivation for preferring one or the other of the projects.

Rivkin and Dissertori emphasize that the process of writing the EPPSU was the outcome of a democratic process where a lot of people were involved with many voices. The EPPSU final document contains the decisions of the majority and it should be accepted by the whole community as a bottom-up consensus. The communication of the strategy needs to be revised and improved for next strategy update.

5. CHIPP Roadmap Updates

The Editorial Board wishes the Roadmap to be a community effort; everybody is invited to participate in the editing. The stringent timescale obliges the Editorial Board to take decisions on the content presentation and on the selection of examples. The Editorial Board asks the Board to confirm the mandate, already given at the Board meeting in February 2020, to be responsible for the final editing of the Roadmap text following the already accepted guidelines of the CHIPP community. The Editorial Board will strive for balance in the roadmap document.

In October, the Board will be asked to endorse the Roadmap text if the document is close to being the final one; otherwise the EB will ask for an electronic endorsement before the final text is released. In case we cnnot meet to release a rough estimate of pictures and pages by the first deadline given by the SCNAT (the end of September) or a first draft of the text by the end of November, the CHIPP Board will ask PSI to take care of the layout and printing of the Roadmap as they did in the previous editions.

6. CHIPP/CHAPS overlap projects: Gravitational waves

Gino Isidori is chairing this session.

Michele Maggiore (University of Geneva) presents the Einstein telescope project[3] motivation and status. Maggiore emphasizes the interest of DPNC (University of Geneva) in participating in the experimental side of the project, while, for the theoretical side, both the DPT of the University of Geneva and the University of Zurich are involved with their competencies. Maggiore insists on the call to experimental groups to participate in the Einstein Telescope experiment since there is room for significant involvement. The biggest experimental challenges for Einstein Telescope experiment are the cryogenic, optic, data acquisition, electronic system and in general the material study.

Gino Isidori presents an overview of the gravitational waves research activities in Switzerland[4], stressing the complementarity of the different projects. Isidori reminds us that Michele Maggiore is a member of the Einstein Telescope steering committee and leads the science working team. Several Swiss scientists in Geneva and Zurich are members of various LISA Working groups. In particular Prof. S. Paltani and his group are involved in the project of a data center for LISA to be set up in the Geneva Observatory (in the Integral Data Center ISDC). From Industry (besides RUAG), there is CSEM (Neuchatel) with the group of S. Lecomte, which is involved (with an ESA contract) in the laser metrology for LISA.

Philippe Jetzer has been invited to give a talk at the CHIPP Plenary in October on possible common

[1] https://indico.cern.ch/event/897920/contributions/3978978/attachments/2092283/3516843/ESPP_Intensity.pdf

[2] https://indico.cern.ch/event/897920/contributions/3978979/attachments/2092347/3515962/ABlondel-News-FCC-CHIPP-2020-08-27.pdf

[3] https://indico.cern.ch/event/946385/sessions/362009/attachments/2092250/3516720/CHIPP2020_MicheleMaggiore.pdf

[4] https://indico.cern.ch/event/946385/sessions/362009/attachments/2092250/3515786/CHIPP2_gino.pdf

interest between the CHIPP and CHAPS communities, in particular in the Gravitational Waves field. Gravitational Waves are very important for two fundamental tasks: firstly the detection of Gravitational Waves gives direct information about the astronomical objects as part of the multi-messenger techniques; secondly the study of Gravitational Waves enables probing the fundamental knowledge of the gravitational interaction; thus it belongs to Particle Physics. Thirdly, some hardware or analysis strategies on particle physics could be very beneficial for Gravitational Waves experiments.

The overlapping experiments between CHIPP and CHAPS, which are targeted for a common interest should be mentioned in both Roadmaps, with a more detailed presentation in the Roadmap which is thematically closer related, i.e. LISA experiment will be covered in detail in the CHAPS Roadmap and CHIPP will discuss how to mention it in the CHIPP Roadmap.

A working group will be set up to discuss the projects that are of common interest for the two communities. G.Iacobucci, R. Durrer and M. Maggiore are interested in participating. The working group will describe the short and long-term projects interesting for the two communities, and give this as input text for the Roadmap.

Angela will send the nomination to participate to this working group to the Board members.

7. SNF presentation on new FLARE Call

Valentina Gallo reports on the new FLARE call in her presentation[5]. The deadline for submission is the 15th of November 2020. The SERI (State Secretariat for Education Research and Innovation) has mandated the SNSF to allocate CHF 43.6 million as an accompanying measure for the 2021-2024 funding period within the framework of the FLARE. Two calls are planned for the FLARE program in the 2021-2024 period. The first one is being organized in 2020 and will lead to the award of grants for a duration of up to four years. The FLARE program aims at facilitating the development, construction, maintenance and operation of instrumentation for major international experiments in particle physics, ground based astrophysics and astroparticle physics. This excludes the support for space experiments but includes the underground experiments.

The conditions to apply are the same as in the past; the details can be found on the SNF website[6]. This funding term, the Swiss representatives are asked to present the long-term funding priorities before the meeting of the FLARE evaluation panel. They should be mandated by their communities and must convey the opinion of their community as a whole. The deadline of the priority document would be ideally the 15th of November, but it could be delayed by a couple of weeks, if necessary.

Operational issues are foreseen since ETHZ technical personnel is required to have an indefinite contract, while FLARE explicitly asks for a definite time contract for the salary of technical people. Regarding this issue, Gallo advises contacting FLARE, Head of division II, via email. SERI wishes to know about any changes of rules in the new FLARE call compared to past calls. In the meantime the issue could be clarified and no substantial changes concerning the hiring of technical manpower have been implemented in the new FLARE call compared to the previous one.

SERI CTA funding depends on the legal status of the project; in the time needed for CTA to change its legal status to an ERIC entity, the funding will not be possible. In the meantime, several CTA related efforts have started, such as the LST-Magic collaboration. It is between SERI, SNF and the CTA PIs to clarify to what extend these efforts are eligible for FLARE funding given the explicit mentioning of CTA in the FLARE call. CHIPP at any rate supports these efforts and recommends to allow them provided no double funding with the existing ERI funding line for CTA exists.

The “development” part explicitly written in the FLARE funding purposes refers also to R&D projects not yet approved (such as FCC). They will be evaluated by the FLARE panel according to the criteria specified in the call document as in the other international experiment.

The Board is invited to join the dinner barbeque; the meeting will continue at 20:30.

8. FLARE discussion

Rainer Wallny re-opens the meeting summarizing the importance of establishing the community priorities; the status of the FLARE requests compared to the available funding is such as to allow every Swiss researcher to have full capacity to participate in experiments with support on the “fair share” level. Some

[5] https://indico.cern.ch/event/946385/contributions/3976869/attachments/2092198/3515685/FLARE_CHIIPboardMeeting2020.pdf

[6] http://www.snf.ch/en/funding/infrastructures/flare/Pages/default.aspx

projects would like to be granted more than the fair-share because the Swiss community is recognized as e.g. having a leading role in certain aspects, or the experiment has a central role in the CH strategy etc. These are the efforts that the EB in its proposal called flagships. If CHIPP fail in its prioritization task, then other bodies will have to take this responsibility following other criteria than the scientific ones. The EB has sent its proposal[7] trying to obtain a consensus in the community not just by applying an algorithm, but by listing a series of criteria that should be met by a project to be granted the status of flagship or of fair-share project. The EB, introducing only two levels of priority, wanted to make clear that every effort has the possibility of being funded, but that there are some selected ones, which, according to the whole community, are to be pushed further. From this are excluded some projects that are "uncuttables": these are regulated by legal agreements made by the community and are not submitted to the FLARE review panel; their funds are already secure. CERN experiments (operation and maintenance) as well of part of the computing effort fall in this category.
A fair-share project based on solid scientific interest by the community is expected to be funded in a way proportional to the number of CHIPP scientists participating in it. Then there are projects that are entitled to ask for more than the fair-share because they follow some of the following criteria:

- Centrality of the field – following the Swiss Strategy and the European Strategy
- More than one CHIPP Professor involved
- The maturity of the project enabling some forecasts on the developing of the cost for the future
- The long-term commitment of the institutes involved (a formal letter from the Institute confirming the institute commitment will for sure be positively considered by the FLARE panel especially if only one PI is involved in the project)
- Centrality in Switzerland as PSI
- Leadership role of Swiss colleagues being allowed to continue their engagement in the project
- Modest upgrade on well-established projects

The Board should be able to rediscuss prioritization at every funding period, taking into account the continuity of projects. The community has the opportunity to discuss in person now (maybe via video in October) the prioritization document and by the 15th October, the Board should find a consensus and approve it with an official vote with a large majority.
The EB proposal has found good support from the majority of the Board; requests to elevate CTA and FASER to flagships were brought forward.

The EB will send a proposal for the next CHIPP board 15th October were a final consensus needs to be found. This CHIPP board consensus will then be documented for the attention of the SNF FLARE panel, in accordance with the new FLARE call.

The Board presents the FLARE funding requests[8] from the experiments.

9. CHIPP Tasks & Functions

Some tasks and functions of CHIPP Board members (document) have open (unlimited) terms and the CHIPP EB opined that they should have terms like all the other functions of 2 or 3 years. The posts concerned are the outreach and education coordinator, the computing Board chair and the observer to CHAPS. These positions are important enough that, if the holder of the function is not a CHIPP Board member, the person should be - following Art. 22 par. 2 of the bylaws - elected as ex-officio member of the Board for the duration of their function.
The EB proposes to introduce a regular confirmation and re-election, without restrictions on the number of re-elections to the following responsibility position in CHIPP:

- outreach and education coordinator: 2-year limit (Jan 2021-Dec 2022); open nomination
- computing Board chair: 3-year limit (Jan 2019- Dec 2021); Mauro Donega
- the observer to CHAPS: 3 year-limit (Jan 2021 – Dec 2023): re-election of Teresa Montaruli – to be discussed in the next few days

In case the elected CHIPP members for these positions are not Board members, the EB proposes to have them elected as ex-officio members of the Board for the duration of their function.

[7] https://indico.cern.ch/event/946385/contributions/3976866/attachments/2088269/3513167/FLARE_Prioritization_2020-forBoard02.pdf

[8] https://indico.cern.ch/event/946385/contributions/3978989/attachments/2088964/3515396/FLARE_doc_Board2020-02_v9.pdf

The Board approves the proposal unanimously.

At the time of writing these minutes, Teresa Montaruli has expressed her wish to step down as CHAPS observer, so the EB has asked for nominations for this CHIPP function.

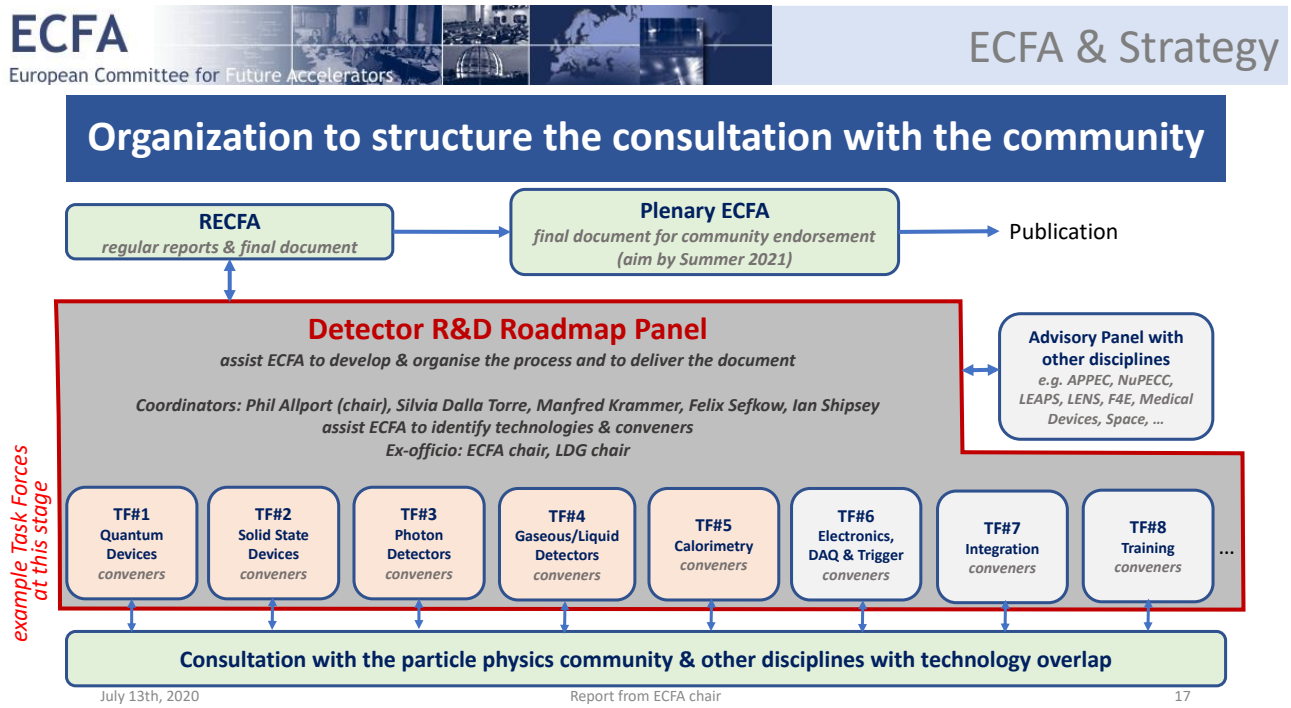
INFORMATION ITEMS

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

- **UniBe:** Michele Weber is the new Director of the Laboratory of High Energy Physics in Bern since the 1st August 2020.
- **UniGe:** Giuseppe Iacobucci is the new Director of the Physics Department and Federico Sanchez is the new Director of DPNC.
- **PSI:** Danek Kotlinski is retiring and Lea Caminada has been appointed Coordinator of the High Energy Physics Department.
- **ETHZ:** Anna Soter will start the 1st of January 2021 as Assistant Professor.
- **EPFL:** there is an opening for a Professor in High Energy Physics; the deadline is the 20th of October[9].

11. A.O.B.

Mike Seidel was asked by the ECFA chairman Jorgen D'Hondt to provide suggestions for recognised experts for each of the provisional Task Force R&D areas defined below.
Angela will send an email with the nomination request to the CHIPP Board.



[9] https://naturwissenschaften.ch/organisations/chipp/open_positions