

Minutes of the Board 2015-02 on 29/30 June 2015

Time of the meeting:Part I: Monday, 29 June 2015 from 10:30 to 12:30Part II: Tuesday, 30 June 2015 from 17:30 to 19:00

Place of the meeting: Château de Bossey, ch. Chenevière 2, 1279 Bogis-Bossey

The Chair opens the meeting at 10:30 (→ slides of the Chair)

1. Welcome and agenda (\rightarrow document)

The Chair welcomes the Board members, Honorary Board members and the Observers at the Board. He welcomes, as new Board members, Prof. Susanne Reffert (Uni. of Bern, excused) and Dr Wojtek Hajdas (PSI). The proposed agenda is approved.

ADMINISTRATIVE ITEMS

2. Apologies and Proxy votes

Board members with voting rights (as of 28 June 2015): 68

Part I on 29 June (for items 1 to 8)

Present: Beck, Blondel, Canelli, Dissertori, Golling, Grab, Hajdas, Hildebrandt, Iacobucci, Isidori, Kilminster, Kirch, Krusche, Mermod, Montaruli, Pauss, Rivkin, Schneider (Chair), Schumann, Signer, Weber, Wu Other participants: Bourquin (Hon.), Clark (Hon.), Kunszt (Hon.), Maillard (Obs. SNSF), Schopper (Obs. SPS), Türler (Admin.)

The Chair informs about the apologies received and about the proxy votes as announced before the meeting¹. Quorum: 23 votes (= 1/3 of the Board members; Art. 24.1 Statutes); Votes present: 22 + 8 proxies = 30 The quorum is reached.

Part II on 30 June (for items 9 to 20)

Present (27 pers.): Baudis, Beck, Blondel, Ereditato, Golling, Grab, Hajdas, Hildebrandt, Horisberger, Iacobucci, Isidori, Kilminster, Kirch, Krusche, Mermod, Montaruli, Nakada, Pauss, Rivkin, Rubbia, Schneider (Chair), Schumann, Serra, Signer, Straumann, Weber, Wu

Other participants: Bourquin (Hon.), Clark (Hon.), Maillard (Obs. SNSF), Schopper (Obs. SPS), Türler (Admin.)

3. Minutes of the last meeting (2015-01 [6 March 2015]) (→ document)

The Chair asks whether there are any comments concerning these minutes. As there are none, the Chair proposes to approve the minutes.

The Board unanimously approves the minutes (with thanks to the minute writer).

DECISION ITEMS

4. Election of two Executive Board members and of the CHIPP Chair for 2016–2017 (→ document)

The Chair introduces the topic by reminding the current composition of the CHIPP Executive Board (EB). He expresses that he wishes to step down at the end of his mandate, that Rainer Wallny was ready to serve for a second term as EB member and that the call for nominations resulted in only to names being nominated

¹ Canelli (for *Baudis*), Dissertori (for *Biland*), Grab (for *Rubbia*), Hildebrandt (for *Ritt*), Kilminster (for *Serra*), Schneider (for *Wallny*), Signer (for *Spira*) Wu (for *Pohl*).

more than once: Tatsuya Nakada and Rainer Wallny. The Chair reads the statement of Wallny, who explains that he is no more standing for re-election due to private reasons. The Chair then reads the statement of Nakada and adds that Nakada explicitly agreed to stand for election as CHIPP Chair. The foreseen reelection of Wallny is unfortunately cancelled (Wallny's decision came only on Friday, 26 June) and therefore a new call for candidates shall be issued for an election at the Board 2015-03. The Chair proposes to still hold the vote for the election of Nakada as CHIPP Chair. As there are no objections to this and no comments, the Chair suggests an open vote.

In absence of the candidate (excused), the Board in open vote and with unanimity elects Tatsuya Nakada for a 3rd term as CHIPP EB member and now also as CHIPP Chair from Jan. 2016 to Dec. 2017.

5. Nominations for election of ECFA representatives (\rightarrow document)

The Chair introduces the topic by reminding that the election of the Swiss representatives in the European Committee for Future Accelerators (ECFA) belongs to the CHIPP Plenary, based on a recommendation by the Board. He then presents the current Swiss representatives in ECFA and states that Lenny Rivkin and Olaf Steinkamp are both standing for re-election, while Terence Garvey (PSI) has to be replaced after two mandates. The call for nominations among the CHIPP Plenary members resulted in three nominees among which two are ready to serve and stand for election. The statements and CVs of the two new candidates – Domenico della Volpe (Uni. of Geneva) and Andreas Knecht (PSI) – are part of the documents distributed to the Board. The Chair presents the suggestion of the EB for the recommendation to the Plenary, i.e. to first reelect Rivkin for a second term as Restricted and Plenary ECFA representative, to re-elect Steinkamp for a second term as Plenary ECFA representative and then to elect della Volpe or Knecht for a first term as Plenary ECFA representative. Rivkin is then asked to leave the room. Blondel notes that ECFA is an important committee taking decisions and that it would be good to have regular reports. The Chair mentions the report at the formal part of the annual Plenary meeting. Pauss suggests clarifying this with Rivkin. As there are no further comments, the Chair proceeds with the vote of the recommendation to the Plenary as suggested by the EB.

The Board unanimously recommends to the Plenary

- the re-election of Lenny Rivkin for a 2nd three-year term (Jan. 2016 Dec. 2018) as Restricted ECFA representative and Plenary ECFA representative;
- the re-election of Olaf Steinkamp for a 2nd three-year term (Jan. 2016 Dec. 2018) as Plenary ECFA representative;
- the election of Domenico della Volpe or Andreas Knecht for a 1st three-year term (Jan. 2016 Dec. 2018) as Plenary ECFA representative.

The Chair reports to Lenny entering the room that discussion about the RECFA communication with the Board. He suggests that if there are important issues one can bring them to the next Board meeting. Clark reminds that some time ago, there used to be a RECFA item at each Board meeting. The Chair takes the point and suggests asking for each Board whether a RECFA item shall be included in the agenda. \rightarrow Admin.: to foresee the possibility of a RECFA item at each Board meeting.

6. Nominations for admission of new honorary members (\rightarrow document)

The Chair reminds about the status of honorary membership as described in the Statutes. He notes that there are two types of membership, for the Board and only for the Plenary. He then informs about the five requests received this year: for Honorary Board Member: Daniel Wyler (Uni. of Zurich) and for Honorary Plenary Member: Ralph Eichler (ETHZ), Divic Rapin (Uni. of Geneva), Jean-Pierre Ruder (CHIPP), and Dirk Trautmann (Uni. of Basel). Kirch notes that Wyler did not often attend Board meetings in the past. The Chair explains that Wyler was invited to choose the preferred type of honorary membership and opted for Board membership adding that he would now have more availability to join meetings. In absence of further comments the Chair proceeds with the vote.

The Board unanimously recommends to the Plenary the admission as Honorary Member of the five applications listed above, in the corresponding categories.

7. Appointment of the scientific delegate to the CERN Council in 2016–2018 (→ document)

The Chair leaves the room and the floor to Adrian Signer as a Vice-Chair to present this agenda item. Signer introduces the topic, mentioning the approaching end of the mandate of Olivier Schneider as scientific delegate to the CERN Council. He mentions the letter sent by Bruno Moor (SERI) in support of the continuation of Schneider's mandate for a 2nd term and asking for a formal nomination by the Board. He notes that Schneider is ready to continue to serve and has the full support of the CHIPP EB before asking for comments. Dissertori expresses his support of this continuation, motivated by the good job done by Schneider in the past. Rivkin also supports this nomination being fully satisfied by the interactions he had with Schneider in this context. Signer suggests a formal vote.

The Board in open vote and unanimously recommends to SERI Olivier Schneider for a 2nd term as scientific member of the Swiss delegation to CERN Council from January 2016 to December 2018.

The Chair coming back in the room thanks the Board for its trust.

DISCUSSION ITEMS

8. The role of CHIPP in defining priorities (\rightarrow slides; \rightarrow document)

The Chair introduces the topic by mentioning the difficult process over more than a year for the preparation of a White Paper on neutrino physics. He does not want to discuss neutrino physics now, but would like to go a step back and - in accordance with the bottom-up organisation of CHIPP - have the Board clarify again a number of key questions on the role of CHIPP. The questions are whether or not CHIPP should define strategies for its pillars, set priorities among its projects and agree on how to cope with funding resources being insufficient to fulfil everyone's wishes. If this is agreed, by what process shall CHIPP achieve this? He then prepares the discussion by reminding what CHIPP has done so far, in particular with the writing of roadmaps and white papers and with the compilation of the CHIPP Long Term Financial Tables. He also mentions the fairly large influence CHIPP can have on the prioritisation of projects in the LA FLARE body and by presenting its strategy to the Round Table International. He also mentions the current context with the input sent for the update of the Swiss Roadmap for Research Infrastructures 2017–2020. The latest document posted on 24 June 2015 on the SERI website² states a total figure of 38.4 MCHF for FLARE 2017–2020. The Chair notes that this should be considered as an upper limit and is well below the expressed wishes of FLARE funding in the CHIPP Tables for the same period, which sums up to 48.9 MCHF. Taking account foreseeable reductions of the FLARE budget increase and the part devoted to astrophysics projects, he thinks that the CHIPP Tables exceed by about a factor of two the actual available FLARE funding. The Chair opens the discussion by proposing possible options to cope with this situation in view of formulating a recommendation to LA FLARE in November. Dissertori thanks the Chair for compiling all this information and states that he agrees on all of this. CHIPP shall be able to moderate the requests. He adds that a more international peer reviewing would be needed with the increasing internationalisation of the projects. Maillard answers that the process of internationalization of the FLARE panel has been initiated and will go on. SNSF however said from the beginning that the LA FLARE body is bottom up and is for Switzerland so there will be no internationalisation there. He admits that the model is at the limit because of the lack of prioritisation from CHIPP in some areas. He warns that since the financial crisis of 2008 the SNSF funding has increased but a decrease is to be expected from 2016 onward, except for FLARE, which we hope to have still increasing. He announces that the call of November 2015 will be limited to only 2016 funding to close the 2013–2016 period. He adds that the discussion here is very important for the role of CHIPP in setting priorities. Iacobucci asks about the respective roles of the Board and the EB. How does one convince a professor that his project is of B priority? He thinks that it would be good that professors come with their own priorities. Pauss is concerned by the lack of priorities since quite some time. She thinks the Board has to manage this, otherwise we will be in a worse situation and somebody will have to decide for us. lacobucci agrees, but reminds that the peer-reviewing is already ensured by SNSF. Kirch suggests that a positive recommendation of CHIPP in LA FLARE is not possible until there is an agreement on priorities in a given pillar. Blondel thinks that the neutrino PIs gave a coherent view on how projects in the neutrino pillar shall go on. At this point one cannot make a full decision, and one needs to keep all the options open. The neutrino groups should not be pushed in decisions that are too early. The Chair notes that in this case, it is

² The document is at: <u>https://www.news.admin.ch/message/index.html?lang=en&msg-id=57808</u>.

then also too early to ask for FLARE funding. Blondel admits that André and him have different opinions on T2K and it is difficult to define at which level CHIPP should intervene about this. He adds that it is counter productive to take the risk of choosing to wrong thing at the wrong time. Pauss wishes the neutrino PIs to work together, because otherwise somebody else will have to decide for them with low priority. Montaruli reminds that the exercise has been done in the astroparticle pillar when writing the White Paper. The total amount to be expected was used as a guideline and guite a lot of projects had to be cut. A very high-level strategy is useful according to Maillard, but it is not sufficient. It is better if CHIPP can say at LA FLARE "this is priority A, this is priority B, etc.". SNSF needs this for the allocation of funding. Kunszt recalls that when CHIPP was funded, it was stated that CHIPP should be able to make priorities. Dissertori adds that the numbers (funding, FTEs, etc.) should be a guideline, but one shall not stick to them too strictly. The Chair suggests using the numbers to specify the share between pillars and then within the pillars one can discuss more carefully. Kilminster notes that it is important not to miss the physics behind. The Chair agrees and mentions the SWAPS 2014 strategic workshop, where the neutrino and astroparticle physics was discussed and also the science talks on neutrinos held at the Board. Although Schumann notes that neutrino needs are only about 15% of the total, the rest of the discussion focussed on neutrinos and how to continue towards the finalisation of the White Paper and the definition of strategies. Clark reminds that engaging into T2K was a big effort and this should not be dropped. Canelli sees two options, we appoint an external international committee or the EB makes pressure and tries to get a strategy. The Chair notes that the EB did this and failed until now. Isidori thinks one should not appoint an external committee and sees the (lack of) strategy within the pillar as the main problem. Kirch sees the promised White Paper as a prerequisite to set a priority in LA FLARE, while Clark rather sees the neutrino physics as an important pillar and therefore CHIPP shall support neutrinos even if no White Paper can be produced by October. Kirch agrees on the importance of neutrinos, but thinks that without a strategy, one shall not engage into the construction of facilities. Clark agrees on this. Dissertori thinks that the difficulties in the neutrino pillar are a problem for the whole process of CHIPP in setting strategies and priorities. Blondel sees a chance to converge on a strategy, but finds it premature given all the uncertainties and finds it dangerous to think that a reasonable outcome can come out of discussions at the Board. Given the uncertainties, Kilminster proposes the White Paper to describe different options with associated costs in the frame of a total amount of money to be reasonably asked for. Canelli agrees on such case scenarios, while the Chair notes that this approach was already suggested to the neutrino PIs. He then suggests to end the discussion. He asks whether there is an agreement that what is presented on the slides is what the Board shall do. As there are no comments or objections, he assumes that this is generally agreed and encourages everybody to discuss in the next 24 hours how to best implement this.

9. CHIPP Long Term Financial Tables (\rightarrow slides)

The Chair opens the second part of the Board meeting by reminding that on Monday, the CHIPP Board agreed generally to define strategies and priorities and to see how to cope with limited funding. He then proposes that the neutrino physics leaders sit together for finalising a document with the strategy until 2020. This shall include what they want to do, what the schedule is and what funding is needed. This needs to be ready by the end of the summer to iterate with the EB and to be sufficiently in advance to have it presented at the next Board meeting. The Chair asks for comments; as there are none and nobody objects, he concludes that this is endorsed by the Board. He then goes on by presenting slides with tables and graphics derived from the received inputs to the CHIPP long-term financial tables for 26 different projects. He presents the full-time equivalents (FTEs) per project in 2015 and per CHIPP pillar, the investment costs and the FLARE funding expected in kCHF for 2017–2020 per project; and the same normalized per FTE. He also shows the fraction of the total Swiss investment to be expected by FLARE. The Chair then presents his personal remarks for each project, noting that this exercise will not make him friends. On the remarks on ATLAS, lacobucci clarifies that there are R&D parts included and that the ATLAS team is actively trying to get additional non-FLARE funding sources. The canton of Geneva was asked to contribute, but this was not positively received. A request is also foreseen for a contribution from the canton of Bern. He reminds that unlike CMS, ATLAS has no access to other federal funds than SNSF and thus tries to ask for cantonal funding, but this is not easy. He also notes that the desired amount for the Phase II upgrade is only half what was invested in ATLAS in the past. Pauss mentions that for CMS this would only be the quarter of the previous contributions. Grab motivates the slight increase of costs for the Tier2 computing by the absence of guaranty for the continuation of the contribution from the ETH Domain. Baudis admits that she made an error in the tables and that the sum of XENON and DARWIN is too high. The total funding needs should be constant over the years. Rubbia reacts that for WA105 the value per FTE is not so high as it is well below

200 kCHF/FTE. The Chair agrees. He then presents a sharing scenario for the three pillars: 60% for the high (+low) energy pillar, 20% for astroparticles, and 20% for neutrinos. This is a rounded approximation based on the declared repartition of FTEs in the different pillars, which is 61%, 21% and 18% in 2015, respectively. The Chair proposes that this (60:20:20) repartition, together with FLARE funding scenarios of CHIPP projects for 2016 (6.25 MCHF) and for the 2017–2020 period (30 MCHF), be the basis for funding priority discussions (i.e. how this money would be shared between projects) within each pillar separately³. Rubbia notes that actually neutrinos are not so far from the goal. He agrees to see this repartition as a guideline. Iacobucci basically agrees, but insists that this shall remain guidelines, he does not want to give a firm yes. Ereditato also agrees for such guidelines, as far as science is the driver. Pauss concludes the discussion by thanking the Chair for preparing all the material and presenting this so clearly (applause).

 \rightarrow Neutrino PIs: To prepare a white paper on neutrino physics strategy in Switzerland

ightarrow EB: To define and launch the process to identify FLARE funding priorities for CHIPP projects

10. Next RECFA country visit to Switzerland

The Chair informs that the next RECFA country visit of Switzerland is due for 2016. The format is a meeting on Friday open to all CHIPP members followed by a dinner (on invitation) and a closed session on Saturday morning. It is meant to be a review of all Swiss activities in particle physics, including the scientific research programme, the funding situation, the development of new technologies, knowledge and technology transfer, university education in particle physics, outreach, etc. RECFA then formulates recommendations for the funding agencies. The Chair mentions that a letter was sent last time, in 2009, to Mauro Dell'Ambrogio, the State Secretary for Education, Research and Innovation, which was acknowledged. Based on the list of previous locations, the proposal of the EB is to hold the meeting at ETHZ in 2016. This is agreed. Concerning the date, the Chair proposes February 12 or 19, or April 1st. Rivkin adds that historically it has been held at the very beginning of March. Kirch suggests to avoid February 12, because of a PSI review. There are no objections for the two other dates proposed.

 \rightarrow Chair: to finalize the date in consultation with the ETHZ colleagues, RECFA and SERI, and invite Mauro Dell'Ambrogio to the meeting⁴

INFORMATION ITEMS

11. Astroparticle Physics International Forum (→ slides)

Maurice Bourquin presents slides on the Astroparticle Physics International Forum (APIF). APIF is a worldwide body to exchange information and to advise ministries and funding agencies on priorities, programmes and constraints of each country in astroparticle physics, i.e. basically particle physics without accelerators. Members of APIF are representatives of ministries and funding agencies. Bourquin then reports on news from the Beijing meeting of May with the plans of the Chinese Academy of Sciences, those of the Indian government and about how the P5 report would be implemented in the USA. About the relationship of APIF with CERN, Nakada notes a positive attitude taken by CERN and asks about the status. Bourquin answers that there is no concrete proposal yet. The management shall propose this to the CERN Council.

12. Swiss Commission on Space Research (\rightarrow slides)

Xin Wu – as new CHIPP observer in the Swiss Commission on Space Research (CSR) – briefly presents a few slides on the organization and mandate of the commission, its membership and the agenda of the last meeting held on 31 March. He highlights the item on the strategic aim of the CSR and shows the cost overview for 2015–2021. He notes that the mandate of CSR is a bit similar to the one of the CHIPP Board. Asked by Nakada, he states that the mandate of CSR is given by SCNAT. The process is a bit less formal than for CHIPP and the committee is even more diverse, as it includes also biomedical applications in space, space weather and of course all the spectrum of space science from planets and exoplanets to gamma-rays and cosmic rays. There is however also a need to make priorities as we do in CHIPP. Most funds come from ESA via the Prodex funding mechanism and also from federal funding sources.

³ An e-mail sent to the Board members by Ueli Straumann prior to the meeting on 27 June 2015 already suggested defining the relative weight of the three pillars. In this message he also emphasizes the role of CHIPP to discuss and agree on a Swiss strategy and on research priorities. He strongly recommends the Board to agree on a way to achieve a reasonable distribution among projects with a sum, which does not significantly exceed the available money.

⁴ The discussion on the date of the meeting converged to April 1st, 2016 and the Chair invited Mauro Dell'Ambrogio at this date in a letter sent on 23 July.

13. News from the Round Table International

The Chair reports on the discussions at the last Round Table International (RTI) meeting, which took place on 14 April 2015. He mentions in particular the presence of Lenny Rivkin to present the Future Circular Collider (FCC). It was found important that all Swiss institutes active in the LHC become part of the collaboration by expressing their interest to Rivkin. It was further decided to send a letter to Mauro Dell'Ambrogio signed by Hans-Rudolf Ott as Chair of the RTI, Rivkin and Schneider. Kirch asks whether the letter can be made available to the Board. The Chair explains that this is not a CHIPP letter, but a letter with SCNAT letterhead with the aim to represent a broader scientific community. The letter is simply asking for a positive signal from the confederation, e.g. by providing support to a geological study in view of the FCC.

14. SCNAT funding requests

The Chair briefly informs that the next CHIPP funding requests to the SCNAT MAP platform are due by 28 August 2015 to cover expenses in 2016. CHIPP foresees to ask support for the SWHEPPS 2016 strategic workshop (10 kCHF), the PSI Summer School in Zuoz (10 kCHF) and the continuation of the "Dialogue" outreach project (~5 kCHF).

15. Swiss EPPCN member

The Chair quickly presents the status towards finding a successor to Beat Gerber as the Swiss member of the European Particle Physics Communication Network (EPPCN). The issue is not settled yet, but a number of steps have been taking in the last months both to secure the needed funding and to find a suitable candidate.

16. SWHEPPS 2016

The Chair reminds the Board about the plan to organise a strategy workshop on high-energy particle physics in Switzerland (SWHEPPS) in 2016. The format would be based on the successful SWAPS 2014 meeting on astroparticle and neutrino physics. The new developments are the completion of the scientific organising committee with lacobucci (ATLAS), Wallny (CMS), Nakada (LHCb) and Colangelo (Theory). The Board agrees on the proposed dates from Wednesday 8 June to Friday 10 June 2016. The location could be the Seminarhotel am Aegerisee or an alternative place.

17. Next CHIPP winter school: call for organisers

The Chair calls for volunteers to organise the next CHIPP PhD winter school to be held in early 2017. The three previous schools (in 2012, 2013 and 2015) have been organised by Vincenzo Chiochia, who now left academia. Assuming we continue this, there is the need to identify for the next Board meeting the person who would be willing to do this.

→ Board: to consider organising the next CHIPP PhD winter school, or help identifying an organiser

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

As usual, the Chair invites Board members to report about any new professorship positions in CHIPP institutes. In Geneva, Anna Sfyrla will start on September 1st an assistant professorship on ATLAS and will become a Board member. At EPFL, there is the on-going hiring of a new professor in string physics. Rubbia mentions that discussions started at ETHZ towards the possibility to create a professorship in dark matter physics. Nothing is reported for the other institutes.

19. Next CHIPP Plenary and Board meetings

The Chair reminds the date of the next Board meeting to be held on Friday, 23 October 2015 at 13:15 in Bern. He also announces that the next CHIPP Plenary will again be joined to the SPS annual meeting scheduled on 23–25 August 2016, in Lugano, Ticino. The CHIPP Board meeting 2016-02 is foreseen to be held just before, on Monday, 22 August.

20. A.O.B.

A few reactions followed the meeting. In relation to item 15, Pauss wonders if SCNAT could help with the EPPCN member. Hans Peter Beck and the Chair report that this route was tried and that this was discussed at a meeting on 29 April 2014 at SCNAT with Jürg Pfister and Marcel Falk (see item 13 of the Board 2014-02). Pauss proposes here help on this matter based on her position at SCNAT. Nakada notes the interest expressed by SCNAT for the future of CERN in reference to item 13 above. He is wondering if there could be additional funds from the confederation. The Chair correctly understands that this question is related to the increase of the Swiss Franc compared to the Euro, and the related discussions at CERN,

where a one-off rebate of 60 MCHF might be given on the 2015 contributions of all CERN member states. Nakada notes that any extra funding helps all areas of CHIPP because it reduces the FLARE tension. The Chair states that it will be delicate to obtain from the confederation a reallocation of a rebate on obligatory contributions.

The Chair closes the meeting at 19:25 by thanking everybody for positive discussions.

28 July 2015

written by: Marc Türler approved by: Olivier Schneider