



an Association according to Swiss law

Results of the Plenary meeting 2017 21 – 25 August 2017

Place of the meeting: CERN, Geneva
Time of the meeting: 21 August 2017 at 16:30

The CHIPP Plenary meeting 2017 was held at CERN in conjunction with the annual meeting of the Swiss Physical Society (SPS) and the Austrian Physical Society (ÖPG). The SPS TASK session hosted the traditional CHIPP PhD/Postdoc days. The formal CHIPP Plenary was held at the start of the meeting.

The conference programme and the individual talks can be found at <https://indico.cern.ch/event/611331/>

1. Formal CHIPP Plenary meeting

1.1. Welcome, news from CHIPP Board and Executive Board

In his opening presentation, the CHIPP Chair, Tatsuya Nakada, introduces the current composition of the Executive Board (EB) after the re-election – at the Board meeting of today Monday, 21 August – of Günther Dissertori for a 2nd 2-year term as EB member and of himself, Tatsuya Nakada, for a 2nd 2-year term as Chairman and EB member. The Board re-elected Xin Wu as CHIPP observer at the Commission on Space Research (CSR) for a 2-year mandate from December 2017 to December 2019. Katharina Muller has been elected as Swiss representative in the International Particle Physics Outreach Group (IPPOG) Collaboration for a 1st term from September 2017 to September 2019.

The Chair then mentions the other decisions taken at the Board meetings since last year's Plenary: Michele Weber was elected as new EB member from January 2017 to December 2018, Aurelio Bay was elected as account editor for a 3-year mandate from June 2017 to June 2020.

The Board in March 2017 gave the mandate to Christopher Grab to prepare a proposal for a new CHIPP Computing Board that later today will be presented.

The Chair also presents the recent CHIPP meetings and activities, in particular the PSI 2016 workshop on Physics, Symmetries and Interactions held at PSI on the 16-20 October 2016. This was followed by the CHIPP PhD Winter School 2017 held in Sörenbers the week of 13-17 February 2017. He continues with the future activities, in particular the organisation of two Strategic Workshops in 2018, the first to be held in Mürten the 3-6 April 2018, the second to be held in Fribourg the 13-14 September 2018. The Chair announces that Angela Benelli is the new CHIPP Administrator from the beginning of June. Mrs. Susanne Hodler from the Swiss Academy of Sciences (SCNAT) has kindly accepted to take care of the CHIPP accounting from January 2018.

He finishes with the announcement of the next CHIPP/SPS Annual meeting that will start tomorrow in conjunction with the Austrian Physical Society (ÖPG) at the Centre International de Conférence de Genève (CICG).

1.2. Admission of new CHIPP Honorary Members

The Chair reminds the Board that, according to the Statutes, Honorary Membership is open to CHIPP Members who have retired from their active professional life or have acquired the status of Professor emeritus. He then presents the two new requests received this year. The Board recommends the two

candidates for admission by the Plenary.

The Plenary – in open vote and with unanimity – approves the admission of two Honorary Board Members (Roland Horisberger and Friedrich-Karl Thielemann).

1.3. CERN Council report (→ [slides](#))

Olivier Schneider, the Swiss scientific CERN Council delegate, recalls in his report the list of members of the Swiss delegation, the Swiss members of the Finance Committee and the Advisors members with a new participant: Jacques Ducrest from the Federal Department of Foreign Affairs from August 2016. The main elections during this year were: in the Council, Sijbrand de Jong was re-elected president for a 2nd one-year term, Elizer Rabinovici and Jens Gaardhøje were re-elected vice-presidents for a 2nd one-year term starting in Jan 2017. In the Scientific policy committee Keith Ellis was appointed as chair for a 1st one-year mandate and other 6 SPC members were appointed, in particular he points out the CHIPP members in the SPC: Tatsuya Nakada, Lenny Rivkin and Laura Baudis. In the Finance committee Ossi Malmberg was elected chair and Umberto Dosselli was elected vice-chair both for a one-year mandate starting in Jan 2017. Barbro Åsman has been appointed as chair for three years from Jan 2018 of the Tripartite Employment condition Forum. Schneider goes on with the presentation of the CERN enlargement process: Ukraine and India are the two new Associate Members States and Slovenia is in the pre-stage to full membership. Other countries like Serbia, Lithuania, Russian Federation, Brazil, Azerbaijan and Croatia are at different stages to become Associate Membership, and contacts have been taken in view of possible applications with Australia, Canada, Estonia, Ireland, Latvia and South Korea. Sri Lanka and Nepal have signed new International Cooperation Agreements.

Schneider reminds the three CERN pillars: 1) the full exploitation of the LHC and the HL-LHC, 2) the “diversity program” with the neutrino platform and 3) the preparation of the CERN future with R&D and design studies for future accelerators (CLIC, HE-LHC and FCC). The priorities are unchanged but lots of progresses have been done in all pillars.

He then explains how the magnets are trained to allow a higher collision energy for the LHC, training involves repetitive quenches before a superconducting magnet reaches the target magnetic field.

Since 2 earth faults did develop during the last tests it was decided to stop the training and restart it only during the Long Shutdown2.

He reminds that in May 2017 it was inaugurated the new Linac 4 that will become the source of protons for LHC after Run 2.

Schneider presents the LHC plan for the coming decade, there will be a long shutdown in 2019-2020 for the installation of the LHC Injectors Update (LIU), during this period ATLAS and CMS will profit to upgrade in part their detectors while LHCb will undergo a major upgrade. During the following shutdown between 2024-2026 (LS3) for the high-luminosity upgrade ATLAS and CMS will undergo a second major phase of the upgrade.

For what concerns the CERN manpower management he reports that the shortage of expert technical manpower in CERN has pushed CERN to recruit 80 new staff on limited duration contracts to cover crucial needs. This is an exceptional measure to cover this need.

He presents the Cumulative Budget Deficit in CERN since the year 2000 and the prevision up to 2027. Since is foreseen a cash flow problem the Council has approved the possibility to use a credit facility from the European Investment Bank. He finishes presenting the Next European Strategy Update and the next election in September 2017 of a Strategy Secretary that will drive the process leading to the update of May 2020.

1.4. CHIPP Outreach Board report (→ [slides](#))

Hans Peter Beck, the Chair of the CHIPP Outreach Group, gives a very complete overview of recent outreach activities, which are targeted to high-school students, teachers and the public. He starts his presentation stressing the importance to ensure adequate collaboration between Switzerland’s high school and universities on the vital question of outreach. The outreach activities are intended to inform the political platform, to inform the public and the potential young physicists. This can be achieved with a minimal budget, giving talks, participating in coordinated events organised by universities and laboratories. He underlines that if a real budget is allocated professionals can be employed, like journalists to enrich the dialog with society. Beck reports about the activities of the EPPCN Network, of the IPPOG Collaboration, stressing also on the projects that CERN put in place to involve teachers to

come to CERN for formations and afterward with their school classes. CHIPP members are encouraged to contribute with ideas, participation to talks or by sharing their activities with the public.

1.5. European Committee for Future Accelerators (ECFA) report (→[slides](#))

Lenny Rivkin, the Swiss Restricted ECFA representative, announces that in October 2017 at the meeting in Istanbul will take place the election for the new ECFA Chair. He reviews the new positions assigned in the Detector R&D panel, the ECFA agenda for the year 2017 and the foreseen meetings for the year 2018. He points out the new organisation for the LCB and LCC organisation, where T. Nakada and L. Evans are respectively Chair and Director. He presents the status of the future projects of linear colliders: ICL, CLIC. He presented the updates of the future circular collider, FCC, showing in the end a draft schedule for the design, construction and installation that will spread between the 2020 and 2042.

1.6. Advisory Committee of CERN Users (ACCU) report (→[slides](#))

Michael Dittmar, the Swiss ACCU representative, reminds the Board of the role of ACCU as the forum for discussion between the CERN management and the representatives of the USER from each country. He recalls that there are yearly four ACCU meetings. He transfers information on some topics from the March meeting. The CERN Library has modified the procedure to access documents, it's not requested to be at CERN to access the documents but via some proxy to install on the computer, it's now very easy. The CERN Library offers 105K books of which 81K are available as eBooks, proceedings, e-journals, access to databases and the access to the documents from the Standards (ISO, IEC, IEEE..).

He presents the plan that was presented in May 2017 of the Site-Management and buildings (SMB): the renovation of B38, the Hotel, is not going to be implemented in 2019. With the available budget only work of consolidation will be possible, the main aim is to keep it operational as long as possible being conform to safety standards and offering a comfortable environment.

He insists to have more active input from and for the users in Switzerland.

1.7. Astroparticle Physics European Consortium (APPEC) report (→ [slides](#))

Teresa Montaruli, the Swiss APPEC representative, cannot attend the meeting so is Laura Baudis that presents her slides. She informs the Board that in the June meeting Antonio Masiero and J. de Kleuver were elected respectively Chair and Secretary. For the next future is foreseen a joint secretariat meeting in September perhaps in CERN. A. Masiero resigned as chair of Scientific Advisory Committee (SAC), nominations are being considered, and Switzerland proposed Laura Baudis. She explains that the new roadmap is ready and now available for "cosmetic" comments, there will be a ceremony for the launch of the roadmap in November 2017, to attend this occasion she asks the Board members to send a list of names to invite. Laura Baudis goes through the APPEC news, in particular she points out that there will be a call for hosting the Theory Centre for Astroparticle Physics by the end of September, CERN and Italy are the two places more interested. CHIPP should support this Expression of Interest. APIF has a new Chair: R. Blandford who took over from M. Turner. It was reported on APIF last meeting that Europe should have a larger representation; there were also remarks on the need for global coordination for the future of DM and GW. LB introduces Geo.8, which works similarly as APPEC but in the field of Earth Sciences. LB reports the existence of the new APPEC web site that needs still some technical adjustments. Then LB focuses on the APPEC roadmap implementation in all different fields of research, as last information she presents the projected capital investment for the period between 2017 and 2022 when the next APPEC roadmap should be updated again.

1.8. Nuclear Physics European Collaboration Committee (NuPECC) report (→[slides](#))

Bernd Krusche, the Swiss representative in NuPECC, is absent, so it's Klaus Kirch that presents his slides. Klaus Kirch informs the Board that the new NuPECC Long Range Plan initiated in 2015 is finished on schedule in 2017. He presents the group conveners of the different working groups and the list of meetings hold in 2017 and foreseen for the next future. At the Lisbon meeting in June 2017, Marek Lewitowicz has been Chair and will take over by the 1st January 2018 from Angela Bracco; during the meeting a discussion of the new Terms of Reference started and will be continued in the next meetings. The Swiss membership on NuPECC will continue thanks to the support of SNF.

1.9. CHIPP Computing Board report (→[slides](#))

Christoph Grab, the Chair of the CHIPP Computing Board, presents the overview of the Swiss LHC Computing Resources. He recalls that Switzerland operates a Tier-2 regional centre at the Swiss National Supercomputing Centre (CSCS) in Lugano serving all three experiments with Swiss participation: ATLAS, CMS and LHCb. There has been a collaboration agreement for operation of Tier-2 between CSCS and UniBe for ATLAS only. CG also presents various tables and plots on the LHC Computing Resources in particular shows the CHIPP contribution to the resources, contribution that surpass the expectations on CPU due to a better deal with CSCS and a faster CPU-Hardware used. He presents the details of the Swiss Tier-3 resources. Grab reports the decision taken earlier at the Board meeting: a new CHIPP LHC computing board (CLCB) formed by the PI-representatives of the institutions and experiments will in the future decide on all strategic and political issues regarding LHC Swiss computing. This CSCB will rely on a technical advisory board that will deal with all technical issues and will consists of representatives of CHIPP institutions involved in LHC, CSCS and the Tier-3.

27 August 2017

written by: Angela Benelli
approved by: Tatsuya Nakada