

Closure of the 2012 Accounts: Annual Report 2012 and Annual Accounts 2012

June 2013/JPR

Introduction

An association is obliged by Swiss law to establish annual accounts and to audit them. For CHIPP, the year 2012 is the first year to fall under this rule¹, but only for the non-C15 financial operations².

As the annual accounts are linked with the CHIPP's activities, it is common practice to present the annual report and the annual accounts under the same item.

Annual Report 2012

CHIPP as a member of the SCNAT is obliged to submit an Annual Report to its mother organisation, structured according to the SCNAT guidelines and rules. The report (attached) covers the CHIPP Publications, the CHIPP (and CHIPP supported) events and meetings, the scientific and institutional international collaboration, the promotion of the next generation, the support and coordination tasks and the 'dialogue with society'.

Annual Accounts 2012

As the C15 project continued also in 2012, CHIPP had two funding sources managed in two separate accounts. The C15 account was submitted – as in the past – to the SER, the SUK and the ETH Council, whereas the CHIPP Association's account is presented to the CHIPP Board (attached).

The CHIPP account was used for the membership fees from the CHIPP institutes as well as for the contribution from SER for the outreach project 'Verflixtes Higgs'. The expenditures are dominated by the costs for the 'Verflixtes Higgs' (Public Relations) and show smaller amounts for conferences and workshops, meetings and administration. The annual accounts 2012 show a total of 92'483.70 CHF on the income side and lists expenditures of 31421.00 CHF. The corresponding profit and loss statement shows a profit of 61'062.70 CHF, to be carried forward to 2013. The Balance sheet shows the corresponding increase of assets.

The obvious imbalance between income and expenditure was partly planned and is explained by two reasons:

1. The project 'Verflixtes Higgs' has received the second instalment from SER in late December, i.e. too late for covering all the existing bills on the one hand and too early for all the bills having already reached the project manager on the other. This situation accounts for approx. 14'000 CHF of the assets. In the mean time, the project balance is around zero.
2. The membership fees for 2012 had been set at a level which was deliberately somewhat higher

¹ Until 2011, CHIPP was funded exclusively through the C15 grant from SUK, SER and ETH Council, and the Annual Accounts had to be submitted to the SER in the frame of that project.

² Except for the Administrator's salary, which was covered by the C15 funds also in 2012?

than what would have been needed to cover the remaining budgeted expenditures. The idea of the Board was to create a buffer for the years to come, where no C15 funds would be available anymore. The buffer accounts for approx. 47'000 CHF of the assets.

In order to be fully transparent, a comparison has been prepared showing 2012 (CHIPP budget and accounts [without the C15 elements]) as well as the approved budget 2013 and the financial plan for 2014 to 2016 (attached).

Auditor's Report

The two elected auditors (CHIPP Board decision in written procedure [deadline 6 March]), Guiseppe Iacobucci and Michael Spira, have performed the audit on 30 April 2013, meeting in Zurich with the accounting officer and the CHIPP Administrator. No mistakes, errors or false entries have been found and the audit resulted in a positive recommendation to the Board. Their report is attached.

The Board (applying Article 27 litt. u and litt. v) is requested

- **to approve** the Annual Report 2012 and instruct the Administrator to make it public on the CHIPP website;
- **to approve** the Annual Accounts, the Balance Sheet and the Profit and Loss Statement for the year 2012;
- **to formally discharge** the CHIPP EB and the CHIPP Administration for the year 2012, expressing at the same time its thanks and appreciation for the careful accounting.

Required majority: simple

This report is a copy of the CHIPP Annual report 2012 that had to be delivered to SCNAT.
Therefore, it is structured along the SCNAT guidelines and format.

SUMMARY

Highlights of the Year

CHIPP enjoyed several highlights in 2012:

- The **SCNAT Membership** of CHIPP took effect in 2012 and strengthens its CHIPP visibility and impact.
- The **Plenary meeting** at Kartause Ittingen (13/14 September 2012) was attended by more than 80 CHIPP Members and saw 20 talks each followed by a discussion session. In addition, reports from 5 international committees as well as from the CHIPP Outreach and the CHIPP Computing Board were presented. Finally, the prize for the best PhD thesis in experimental and theoretical particle physics was awarded (see below).
- The wealth of results produced in the C15 project “Swiss Centre for Advanced Studies in Particle Physics in the LHC era” was astonishing: This 5 year SUK project funded jointly by the State Secretariat for Education and Research SER (now: SERI) and the ETH-Rat brought together 5 institutes from cantonal and federal universities. With the help of 9 PostDocs, selected in international competition from more than 100 candidates, a high international visibility of the Swiss particle physics groups was achieved, contributing significantly to the more than 300 publications for the years 2011 and 2012, and benefitted to the whole Swiss university landscape. More information can be found at <http://www.chipp.ch/chipp-doctoral-programme.html>.
- The impressive press coverage surrounding the **Higgs boson** including the associated CHIPP Outreach activities and the results from the SER funded project ‘Verflixtes Higgs’ (details see <http://www.teilchenphysik.ch/> [for the time being available only in German]).

SECTORS OF COMPETENCE: NETWORKING AND DEVELOPMENT OF SCIENCE

Publications

The C15 project “Swiss Centre for Advanced Studies in Particle Physics in the LHC era” led to a Mid-Term Report, in which the resulting transversal collaboration and the intimate link between PhD and PostDoc level was nicely illustrated through 12 talks involving all five partner institutes. Copies can be downloaded at http://www.chipp.ch/documents/CHIPP_Mid-termreportSUKC15_5.6.12.pdf.

In September, CHIPP submitted a report to the Rectors’ Conference of the Swiss Universities CRUS called “Cost-intensive Infrastructures: Particle and Astroparticle Physics”. CRUS had asked for this report as part of the Conference’s preparatory work in view of the forthcoming new university legislation

[HFKG]. In its Article 3h, the HFKG requires that CRUS coordinates the particularly cost-intensive research fields throughout Switzerland with the goal of avoiding double investments, purchases and projects. In order to be able to propose useful coordinative measures once the legislation comes into force, CRUS has decided to select four disciplines as test-beds, among them particle and astroparticle physics. The report is available at http://www.chipp.ch/documents/Costly_IS_final_as_approved_20120912.pdf.

Meetings, Workshops and Schools

In addition to the Plenary, which is to be considered as the Swiss national conference on Particle Physics (see Zusammenfassung / Highlights), CHIPP continued to work on its educational goals and organised or co-organized also in 2012 several Schools and Workshops:

- From 9-12 January 2012, the University of Zurich saw the Zurich Phenomenology Workshop (<http://www.phys.ethz.ch/~pheno/HiggsWorkshop2012/index.html>), bringing together leading researchers from experimental and theoretical elementary particle physics to discuss the results of the 2010-12 LHC runs at CERN and their implications for unravelling the structure of particle physics at the Fermi scale. Organised jointly by Prof. C. Anastasiou (ETHZ) and Prof. Th. Gehrman (University of Zurich), the meeting featured 25 talks from national and international scientists.
- The fourth CHIPP PhD Winter School (<http://chiocchia.web.cern.ch/chiocchia/CHIPP2012/>) was dedicated to the experimental and theoretical aspects of LHC physics and assembled 27 students from all three large LHC collaborations with Swiss participation in Engelberg between 22 and 27 January 2012. Jointly organized by Prof. V. Chiochia (University of Zurich) and Dr. G. Pásztor (University of Geneva) the school's programme was built around five lectures on LHC phenomenology, LHC experimental results, flavour physics, and statistical methods for HEP analysis. Dedicated discussion sessions took place in the evening, where lively and constructive debates took place in small groups, self-organized typically around the international lecturers. Members of different LHC collaborations shared their experience and knowledge with each other, and started dialogues on their subjects.
- From 15 - 20 July 2012, the CSF in Ascona hosted the international workshop "DarkAttack2012" (<http://www.itp.uzh.ch/events/darkattack/index.html>), organised by Prof. L. Baudis (University of Zurich). The Workshop brought together scientists looking for Dark Matter in particle physics, astrophysics and cosmology, and aimed at facilitating their collaboration and promoting the exchange of new ideas across the different communities. This stimulating meeting assembled 19 invited international speakers and some 40 other participants and promoted the development of a new, truly global approach to the discovery and characterization of Dark Matter. It provided a great opportunity for scientists to join forces in tackling one of the biggest unsolved mysteries of fundamental physics.
- The SPS annual meeting (21-22 July) took place at the ETH Zurich and was also a meeting place for many Swiss particle physicists. The TASK session (Teilchen-, Astro-, Kernphysik) was organized by Prof. M. Pohl (University Geneva) and saw more than 50 contributions mostly by PhD students from the CHIPP community.
- The Zuoz Summer School <http://ltph.web.psi.ch/zuoz2012/> took place between 19 and 25 August under the title "Closing in on the Standard Model". Seven speakers (national and international) gave 15 lectures and an interesting seminar. The School was organised by Dr. M. Spira (Theory Group of the Laboratory for Particle Physics at PSI).
- As it is tradition in August, the University of Zurich and the ETHZ organised the PhD seminar mandatory for all particle physics PhD students in the Zurich area.

INTERNATIONAL ACTIVITIES

Scientific cooperation

Particle and astroparticle physics has been the first field of research, which has used extensively transnational and international cooperation. This need was triggered by the fact that research projects in this domain were (and still are) often large undertakings, representing an important intellectual and technological challenge and requiring a large amount of human and financial resources. Therefore, it goes without saying that they cannot be carried out locally at the level of an individual university by individual groups but require national, regional or global collaboration. For instance, the detector collaborations at CERN involve between 60 and 180 institutes and laboratories per experiment! Also at national level, the success of Swiss particle and astroparticle physics is based on small, large and extremely large collaborations, mostly across the Swiss border. Many of them occur naturally – between groups working in the same field or requiring the same type of infrastructure – or are coordinated bottom-up by CHIPP. Such collaborations may be carried out at an informal level and are sometimes not even noted at the level of the home institution. In addition, experiments in particle and astroparticle physics usually involve research facilities, which again are the result of national, regional and global collaboration. For this reason, it is not possible in this report to list all the people and groups engaged in scientific collaborations.

Institutional collaboration:

Several CHIPP Board members are acting as official delegates to international organisations:

- Prof. Ulrich Straumann (University of Zurich) is mandated since 2007 by SER as Swiss scientific delegate to the CERN Council; his mandate ended on 31 December 2012. In addition, he is representing the Swiss participants in Resources Board of the CTA project (Cherenkov Telescope Array).
- Prof. Maurice Bourquin's mandate (University of Geneva) as Swiss scientific delegate to the ApPEC General Assembly (Astroparticle Physics European Consortium) ended on 31 December 2012; Prof. Teresa Montaruli (University of Geneva), who will succeed him officially as from 2013 onwards, already attended the November 2012 General Assembly.
- Prof. Bernd Krusche (University of Basel) has been reappointed in May 2012 by the Swiss National Science Foundation (SNSF) as Swiss representative in NuPECC (Nuclear Physics European Collaboration Committee).
- PD Dr. Michele Weber (University of Berne) is serving since January 2009 as CHIPP representative in the Advisory Committee of CERN Users (ACCU).
- Prof. Thomas Gehrmann (University of Zurich) is mandated by the CHIPP Plenary since January 2010 to represent the Swiss particle physics community in the Restricted ECFA (European Committee for Future Accelerators); his mandate ended on 31 December 2012. In the Plenary ECFA, Prof. Xin Wu (University of Geneva) terminated his appointment after five years also on 31 December 2012, whereas PD Dr. Michele Weber (University of Berne) and Dr. Terence Garvey (PSI) continue to represent Switzerland beyond 2012.
- Prof. Klaus Kirch (PSI and ETHZ) is the Swiss representative in the European Strategy Group, working on the update of the 2006 European Strategy in Particle Physics.

COORDINATIVE TASKS

Promotion of the next generation

Also in 2012, CHIPP Members and CHIPP institutes continued their efforts of attracting young women

and men to particle and astroparticle physics. At several institutes, educational events like information days for future students and for Matura/Kantonsschulklassen, talks targeted to Gymnasium students, children's university, education day and talks on elementary particles for physics teachers were organised and single pieces of equipment were exhibited at Gymnasiums. One should mention specifically the participation of the Universities of Berne, Geneva, Zurich and the ETHZ in the European Masterclasses "Hands on Particle Physics", where over 8000 Gymnasium level students from more than 160 institutes from 33 countries can actually work with real data from the CERN LHC.

Visits to CERN and to the experiments control rooms as well as to PSI and its particle physics and accelerator facilities were organized for university students in physics.

The project „Verflixtes Higgs“, funded by SER, aims at visualising in a comprehensible way the newest results from particle physics (like Higgs) to Swiss Mittelschülerinnen and Mittelschüler. In the centre of the project one can find a new dedicated internet page www.teilchenphysik.ch (for the time being available only in German), where explanatory text, figures and videos dealing in one way or the other with particle physics, the Higgs mechanism and the standard model.

Also in 2012, CHIPP has awarded a prize for the best PhD thesis in experimental and theoretical particle physics. The 2012 award went to Franz Herzog from ETHZ for his work on QCD corrections and non-linear mappings. The *laudatio* says: "For his contributions in developing a new method for NNLO perturbative calculations and its application to the phenomenology of the Higgs boson". The prize winner was selected from eight candidates and was presented with the prize money (3000 CHF) and the CHIPP diploma during the CHIPP Plenary at Kartause Ittingen (for details see at <http://www.chipp.ch/chipp-prize.html>).

Information and coordination tasks supporting research and science

CHIPP's administrative work is facilitated by an Administrator, supporting the Chair and the Association in organisational matters. In this context, CHIPP has at its disposal an internet page <http://www.chipp.ch> which contains news, documents, information about meetings, and the complete membership data base. According to the goals as set out in the Statutes and By-Laws CHIPP initiates and promotes a continuous dialogue between the institutes, aiming at having at hand in a timely and transparent manner the information about ongoing and planned research activities in the groups including funding and manpower needs (<http://www.chipp.ch/documents/StatutesBylaws.pdf>). This information was collected also in 2012 and condensed as usual in a coherent Long-Term Financial Planning table of particle and astroparticle physics projects, made available for planning purposes to the SER and the SNSF.

CHIPP took actively part in the SCNAT's Round Table International, an information forum on participation of Swiss groups in international research facilities, comprising representatives of the SER, SNSF, and CRUS.

Dialogue with society

Several members of CHIPP gave public lectures and participated at public conferences, e.g. at a conference at the "Société Vaudoise des Sciences Naturelles", or at the "Fondation Suisse d'Etudes / Schweizerische Studienstiftung" with a presentation about LHC physics and high-energy research in general, followed by a round-table discussion involving the participating students from all fields of higher education, including social sciences. In addition, Prof. Antonio Ereditato (University of Berne) and Prof. Teresa Montaruli (University of Geneva) participated actively at the Congress of SCNAT (Forschung am geographischen Limit).

CHIPP Jahresrechnung 2012

Bilanz/Balance sheet

	31.12.2012	31.12.2011
AKTIVA / ASSETS	CHF	CHF
Post / Postbank	61'062.70	0.00
Forderungen / Accounts receivable	<u>0.00</u>	<u>0.00</u>
Total Aktiva / Assets	61'062.70	0.00
PASSIVA / LIABILITIES		
Verbindlichkeiten / Accounts payable	<u>0.00</u>	<u>0.00</u>
Total Passiva / Liabilities	0.00	0.00
Zunahme(+)/Abnahme(-) Vermögen Increase (+)/Decrease (-) of Assets	61'062.70	0.00

Vermögensveränderung per 31.12.2012

Change in net assets by 31.12.2012

Vermögen am 31.12.2011 Assets on 31.12.2011	0.00
Vermögen am 31.12.2012 Assets on 31.12.2012	<u>61'062.70</u>
Vermögenszunahme 2012 Increase in assets 2012	<u><u>61'062.70</u></u>

Erfolgsrechnung / P/L statement

	31.12.2012
AUFWAND / EXPENDITURE	CHF
Öffentlichkeitsarbeit / Public Relations	25'968.00
Projektbeiträge UZH / Contributions UZH	0.00
Schulen / Schools	0.00
Konferenzen & Workshops / Conferences & Workshops	0.00
Mitgliederbeiträge / Membership fees	3'283.00
Preisgeld / Prize money	0.00
Plenarversammlung / Plenary meetings	0.00
Board-Sitzungen / Board Meetings	166.50
Sitzungen EB / EB Meetings	0.00
Verwaltungsaufwand / Administrative costs	1'995.50
Finanzaufwand / Financial Expenditure	<u>8.00</u>
Total Aufwände / Total Expenditure	31'421.00
ERTRAG / INCOME	
Mitgliederbeiträge CHIPP / Membership fees CHIPP	52'470.00
Beiträge SCNAT / Contributions SCNAT	0.00
Beiträge SNF / Contributions SNF	0.00
Beiträge SBF / Contributions SER	40'000.00
Finanzertrag / Financial Income	<u>13.70</u>
Total Erträge / Total Income	92'483.70
Gewinn (+)/Verlust (-) Profit (+)/ Loss (-)	61'062.70

EXPENDITURE	2012		2013		Financial Plan			identical to the FP of August 2012, except for the boxes in green and blue	
	Budget	Accounts	Budget	rev. Budget	(take note)	2014	2015		2016
Activities	15'000	31'421	289'000	128'500		137'400	146'000	138'000	
Membership fees	2'500	3'283	9'500	3'500		2'600	2'600	2'600	
Membership in SCNAT	2'500	3283	3'500	3'500		2'600	2'600	2'600	
Membership in ApPECC			6'000	0		0	0	0	paid directly by SNSF
Schools & Conferences	7'500		22'000	14'000		15'000	24'000	16'000	
CHIPP PhD School			20'000	12'000			20'000		
PhD/PostDocs days						10'000		10'000	
Zuoz						2'000		2'000	
WS on low energy precision physics			1'000	1'000					
Detector R&D			1'000	1'000					
unspecified						3'000	4'000	4'000	
Outreach		25'968	150'000	37'000		12'000	12'000	12'000	
Verflixtes Higgs		25968	38'000	32'000					
Interactions			100'000	0		0	0	0	funded outside CHIPP budget by SNSF
Dialogue			12'000	5'000		10'000	10'000	10'000	
unspecified						2'000	2'000	2'000	
CHIPP Prize			3'000	3'000		3'000	3'000	3'000	
CHIPP Meetings		166	2'100	2'100		2'100	2'100	2'100	
CHIPP Board Meetings		166	800	800					
CHIPP EB Meetings			300	300					
CHIPP Plenary (invited speakers, Administrator, secretariat)			1'000	1'000					
operations	5'000	1996	100'000	65'000		100'000	100'000	100'000	
Administrator				60'000					
Webpage				3'500					
travel expenses				1'500					
miscellaneous		8	2'400	2'400		2'700	2'300	2'300	

INCOME	52'360	92'484	314'000	195'403	166'903	129'503	83'503	
contributions from CHIPP members	52'360	52470	100'000	99'340	75'000	75'000	75'000	
contribution from SCNAT			31'000	17'000	25'000	25'000	25'000	
for CHIPP School			15'000	12'000				
for Outreach			10'000	5'000				
for ApPECC			6'000	0	0	0	0	paid directly by SNSF
contributions from SNF			100'000	0	0	0	0	
for 'Interactions' (Agora)			100'000	0	0	0	0	funded outside CHIPP budget by SNSF
contributions from SER		40'000	38'000	18'000	0	0	0	
for 'Verflixtes Higgs'		40000	38'000	18'000				
carry forward from preceding year			45'000	61'063	66'903	29'503	-16'497	
miscellaneous		14						

INDEPENDENT AUDITOR'S REPORT 2012

To the CHIPP Chair and the CHIPP Board Members

We have audited the annual accounts and the accompanying balance sheet of CHIPP for the period 1 January to 31 December 2012.

In our audit, we reviewed the correlation of the accounting entries with the available supporting documents (invoices, receipts, proofs) and with the extract of the Postfinance account. The available fortune as shown on the latter is coherent to the total assets according to the Balance sheet.

The auditing of the Annual Accounts has shown that all accounting entries are in line with the final accounts and accompanied by a corresponding proof.

The Profit and Loss Statement for 2012 shows a profit of CHF 61'062.70, to be carried forward to the 2013 accounts.

In our opinion,

- (1) the financial statements referred to above present fairly, in all material respects, the financial position of CHIPP as of 31 December 2012, the results of its operations and its cash flows for the year then ended;
- (2) the Financial Statements have been prepared with great care;
- (3) the Financial Statements comply with relevant statutory requirements.

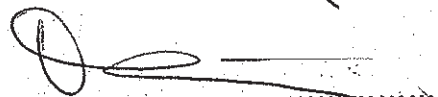
Therefore, we recommend to the CHIPP Board:

1. to approve the Annual Accounts, the Balance Sheet and the Profit and Loss Statement for the year 2012
2. to formally discharge the CHIPP EB and the CHIPP Administration, expressing at the same time our thanks and appreciation for the careful accounting.

The auditors:



Prof. Giuseppe Iacobucci
University of Geneva



Dr. Michael Spira
Paul Scherrer Institute PSI

Zurich, 30 April 2013.