

CHIPP Outreach Report

A thick, horizontal yellow brushstroke with a textured, painterly appearance, extending across the width of the page below the title.

26 January 2011

CHIPP Board

Geneva

HP Beck

CHIPP Outreach Group

- The **primarily role** shall be **the coordination of outreach activities in Switzerland**
 - Outreach will normally be done by individual institutes
 - but should emphasize CHIPP and our common or related activities wherever this is sensible

- **Target Audience**
 - General Public
 - Schools
 - pupils
 - teachers
 - Universities
 - ...

- **Changes since last CHIPP Board meeting**
 - **Marie-Christine Sawley** left ETHZ; replacement not yet identified
 - **Laurent Salzarulo** changed department in SER; replacement: **Bettina Mühlebach**

 - **Beat Gerber**, left in November 2009. No successor could be identified
 - discussions with **Uni Bern** (rector, press office) as well as with **PSI press office** (head: Dagmar Baroke) were sobering.
 - rector in principle positive, if resources could be identified
 - press offices state their impossibility to report CHIPP wide, as their mandate defines a different scope (conflict of interest)
 - still possible to help out with infrastructure, or writing dedicated articles,... i.e. press office core business

ongoing activities

- **Masterclass** events in **Bern, Geneva and Zurich** (ETHZ+UNIZH)
 - **16, 11, 24 March 2011** respectively
- No more LEP data, but now first time with **LHC data!**
- e.g. <http://atlas-minerva.web.cern.ch/>
 - The aim of the exercise is to identify particles in the **ATLAS** detector at the LHC. We ask the students to scan a mix of various physics events and classify them in the following categories
 - $W \rightarrow \mu \nu$
 - $W \rightarrow e \nu$
 - $Z \rightarrow \mu \mu$
 - $Z \rightarrow e e$
 - QCD dijet events
 - To do this the **ATLAS event display Atlantis** is used.
 - After the students have finished the results from each group are collected and calculate together the **ratio of $W \rightarrow e \nu / W \rightarrow \mu \nu$** and the **ratio of Z/W** production compare with the predictions and discuss the physics of these measurements.
- Similar exercises are in preparation for **CMS**, and **ALICE**

Contacts with Swiss Teachers

- Contact with **PHBern** and Bernese teachers education
- Contact with **PHZH** and especially the new ZH effort via HSGYM
 - a forum to discuss between **HighSchool** & **GYM**nasium teachers
- Efforts often limited to cantonal boundaries, with some reaching out to neighbouring cantons ...

- **Visits and talks at Swiss high schools**
 - ZH has contacts with several schools
 - BE is organizing every Winter the 'Physik am Samstag' lecture series

- **Getting school classes to CERN!**
 - e.g. one class (14 pupils, 2 teachers) from Kantonsschule Glattal (ZH) next week at CERN, and another class from MNG Rämibühl (ZH) in a few weeks

 - **CERN is happy** to organize such events (see next slide for details), but indicates that **extra resources** are not unlimited. Participation from schools, cantonal funds or SER? may be required if this should take off...

A Swiss School Class program at CERN...

- **31.1.2011:**
 - 13:30 Einführungsvortrag (Sascha Schmeling; 40-R-D10)
 - 14:30 Kaffee und Plausch (Sascha Schmeling, Konrad Jende; 501 (R1))
 - 15:30 Besuch der Protonenquelle und des LINAC II - ein Linear- und einer der Vorbeschleuniger für den LHC (Sascha Schmeling; 354)
 - 16:45 Besuch von SM18 (Konrad Jende; SM18)
 - 18:00 Ende des ersten Tages
- **01.2.2011:**
 - 09:30 Ausstellungen auf dem CERN-Gelände (MICROCOSM (33), GLOBE (80))
 - 11:00 Vorlesung zu Antimaterie (Michael Doser; 40-R-A10)
 - 12:00 Mittagessen (501)
 - 13:30 Besuch des AD - Antiproton Decelerator (Michael Doser; 193)
 - 15:00 Cloud Chamber Workshop - Bau eines Teilchendetektors (Konrad Jende; 6-2-004)
- **02.2.2011:**
 - Der Vormittag ist noch in Planung. Es wird auf jeden Fall eine ausführlichere Führung durch den MICROCOSM geben und vielleicht noch einen Workshop im CryoLab. 13:00 Schnitzeljagd durch Genf zum Erkunden der Stadt. Am Abend könnten wir bei Interesse, Bedarf und finanzieller Ausstattung Ihrerseits (das müssten Sie entscheiden) ein traditionelles Käsefondue in Genf einnehmen - hierbei wären etwa 30 Franken pro Person einzuplanen. Bei Interesse melden Sie sich bitte bei mir, damit ich eine Reservierung vornehmen kann.
- **03.2.2011:**
 - 09:30 Besuch bei LHCb/CAST (Martin Hawner; Abfahrt bei Gebäude 33)
 - 11:00 Masterclasses-Einführungsvortrag (Konrad Jende; 503-1-001; gemeinsam mit Deutsche Schule Genf)
 - 12:00 Mittag (501)
 - 12:45 Masterclasses-Messung an echten LHC-Daten (Konrad Jende; 503-1-001)
 - 15:00 Masterclasses-Abschlussbesprechung (Konrad Jende; 503-1-001)
 - 15:30 Besuch bei ATLAS (Konrad Jende, Martin Hawner; 3162)
 - 16:30 Evaluation der Masterclasses (Konrad Jende; 4-3-006)

- **Good coverage in Swiss media**
 - **in particular regarding LHC and nu tau oscillation**
 - Press (TdG, BZ, Tages Anzeiger, NZZ,...)
 - TV (Einstein, 10vor10, Sternstunde Philosophie,...)
 - but also smaller brochures
 - e.g. Kundenmagazin Centralschweizerische Kraftwerke CKW, etc.

- **Press releases** from CERN are a good trigger for media
 - University, ETH & PSI press offices active from time to time
 - but: press offices claim that if the Swiss media is reporting, then their message on top of the Swiss media reports would go unseen...!
 - We need: press releases with **Swissness** enhancement to gain impact

Special events

- **e.g. Einstein in China**
 - two year travelling exhibition in 2010 and 2011 in China
 - sponsored by: **Presence Switzerland (FDFA), SwissNex (SER), Uni Bern, ETHZ Bern Historical Museum,...**
- **Beijing**
Jun-Oct 2010
- **Guangzhou**
Nov 2010–Feb 2011
- **Hongkong**
Apr-Aug 2011
- **Shanghai**
Oct 2011 – Feb 2012



Special events

- **many more**, as I will learn from the groups delegates at the forthcoming CHIPP Outreach Group meeting at the
- **Geneva Physiscope** in one of the coming weeks (doodle poll active). Thanks to Olivier Gaumer for making this possible.
<http://www.physiscope.ch/>



EPPOG → IPPOG

- **The International Particle Physics Outreach Group (IPPOG) (Formerly EPPOG)**
 - promotes the outreach activities of particle physics institutes and laboratories in the CERN Member States.
 - acts as a forum for the exchange of ideas and experiences related to particle physics outreach.
 - was formed under the joint auspices of the European Committee for Future Accelerators ([ECFA](#)) and the High Energy Particle Physics Board of the European Physical Society ([EPS-HEPP Board](#)).
 - is composed of
 - **one member** nominated by the particle physics community **of each CERN Member State** (HP Beck for CH).
 - **one member** each from **DESY** and **CERN**, appointed by the managements of those laboratories.
 - **additional representatives** from **particle physics experiments, astroparticle physics** and **non-Member States** of CERN.

- Next IPPOG meeting: 14-16 April in Kosice

IPPOG Outreach Database

- Brand new database that holds recommended tools and materials to be used in bringing the exciting world of particle physics to students of all ages and the general public. Here you can find **videos, brochures, posters, talks, ideas for hands-on activities, and more!** Items stored here are shared by members and partners of the IPPOG network.



Use [Indico](#) for meetings, [CDS](#) for official papers, notes and photos and [EDMS](#) for engineering documents.

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Document List by Topic

These documents on [Educators of 25+ year olds](#) (subtopic of [Teachers / Professional Educators](#)) are available:

IPPOG-doc-#	Title	Author(s)	Topic(s)	Last Updated
212-v2	Video Series: Colliding Particles - Episode 6: Beam	Mike Paterson	7. Ages 25 years+ ATLAS English Film / Video 7. Educators of 25+ year olds 5. Ages 15 - 18 years 5. Educators of 15 - 18 year olds 6. Ages 18 - 25 years CERN & Experiments based at CERN b. 6-15 min Educational Kits Podcast 6. Educators of 18 - 25 year olds CMS Individual Teaching Aids LHC	21 Jan 2011
208-v1	Video Series: Colliding Particles - Episode 2: Big Bang Day	Mike Paterson	7. Ages 25 years+ ATLAS English	21 Jan 2011

Funding CHIPP Outreach

- **CHIPP Outreach needs funds** to effectively do its job
- **Document** describing Swiss Outreach activities and commitments (EPPCN, IPPOG) ~ready.
 - 5 Workpackages described covering the Web portal (design and maintenance), press releases and news feeds, the Swiss node for the CERN LHC communication group, common publications, a best practice database, and extra events and would require a budget of **100 kCHF/year recurring** for a **50% FTE** plus **30 kCHF** travel, print, misc.
 - **Kick-start overhead** of: **1 FTE for six months + 115 kCHF** to set up the web-portal.
- Martin Pohl will submit to the **president of the SNF research council**, Dieter Imboden
- in parallel, also to **SATW** (non-commercial, politically independent umbrella organisation bringing together people, institutions and specialised organisations in Switzerland which are active in the application and promotion of the engineering sciences).

50 kCHF from SER

The project must be further (financially) supported by all involved Universities and institutes. - ok

The project should be for young people who are about to take the decision what to study (tbd)

Should be a global project targeted for young people.
Preferably the project is long term (3 years)

SER money still there, but **needs to be confirmed by Bettina Mühlebach** (replacing Laurent Salzarulo). She is absent till 9 Feb 2011...

My understanding is that CHIPP funding must be confirmed first, only then the 50 kCHF from the SER can be unlocked.

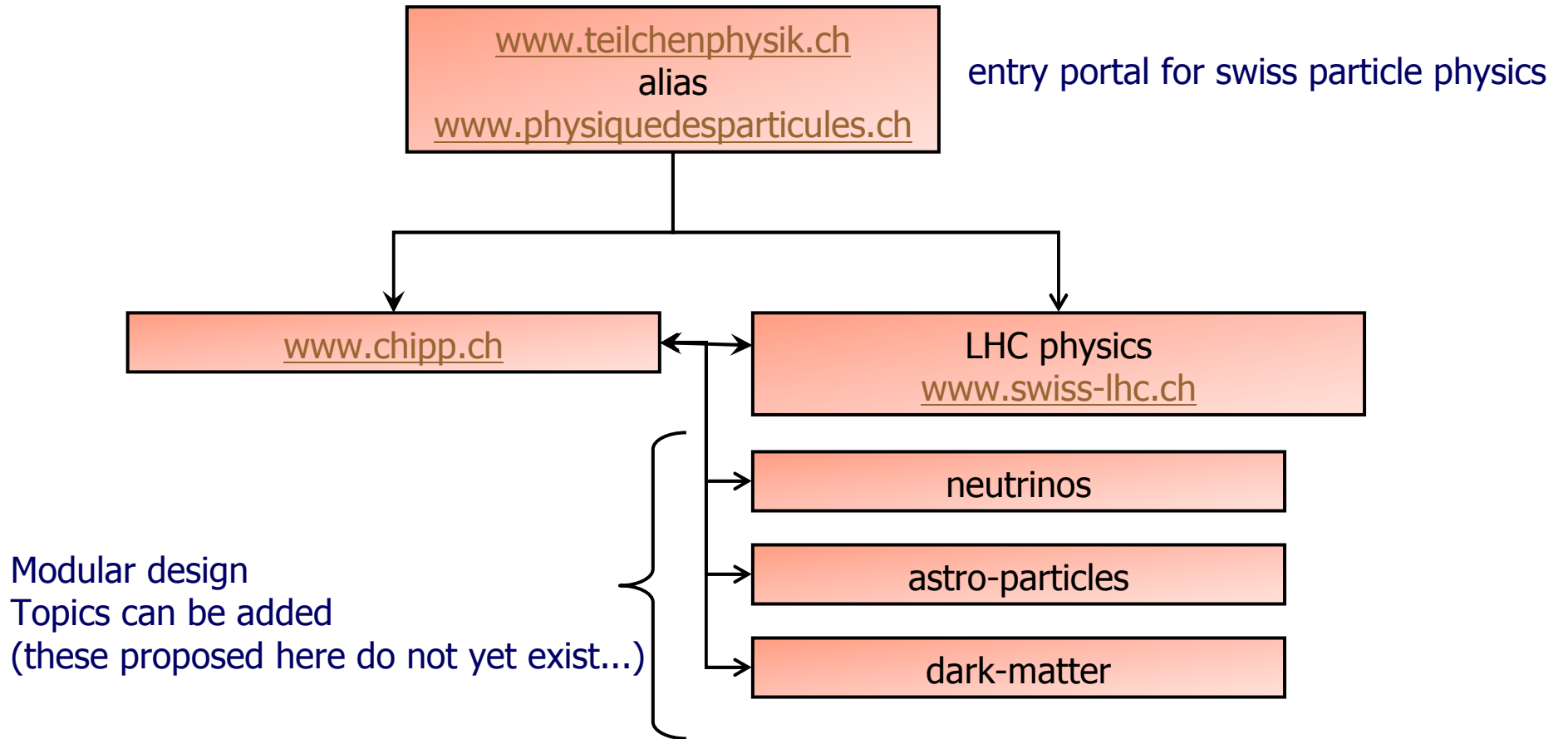
Conclusion

- CHIPP Outreach activities ongoing
 - small scale, individual initiatives, all Swiss sites are active, no (or only little) coordination needed
 - Visits to Experiment sites (ATLAS, CMS, LHCb, ...)
 - Schools, Journalists, VIPs
 - Open day events at local site
 - Student/Fresher days at local site
 - Public talks at schools, clubs (rotary, lions,...), industry, ...
 - Interviews @ TV / Radio / Printed press
 - Maturitätscommissionen
- next CHIPP Outreach Group meeting in February or March depending on Doodle outcome
- Looking for funds from SNF, SATW to professionalize CHIPP Outreach and its impact
 - would also unlock SER money

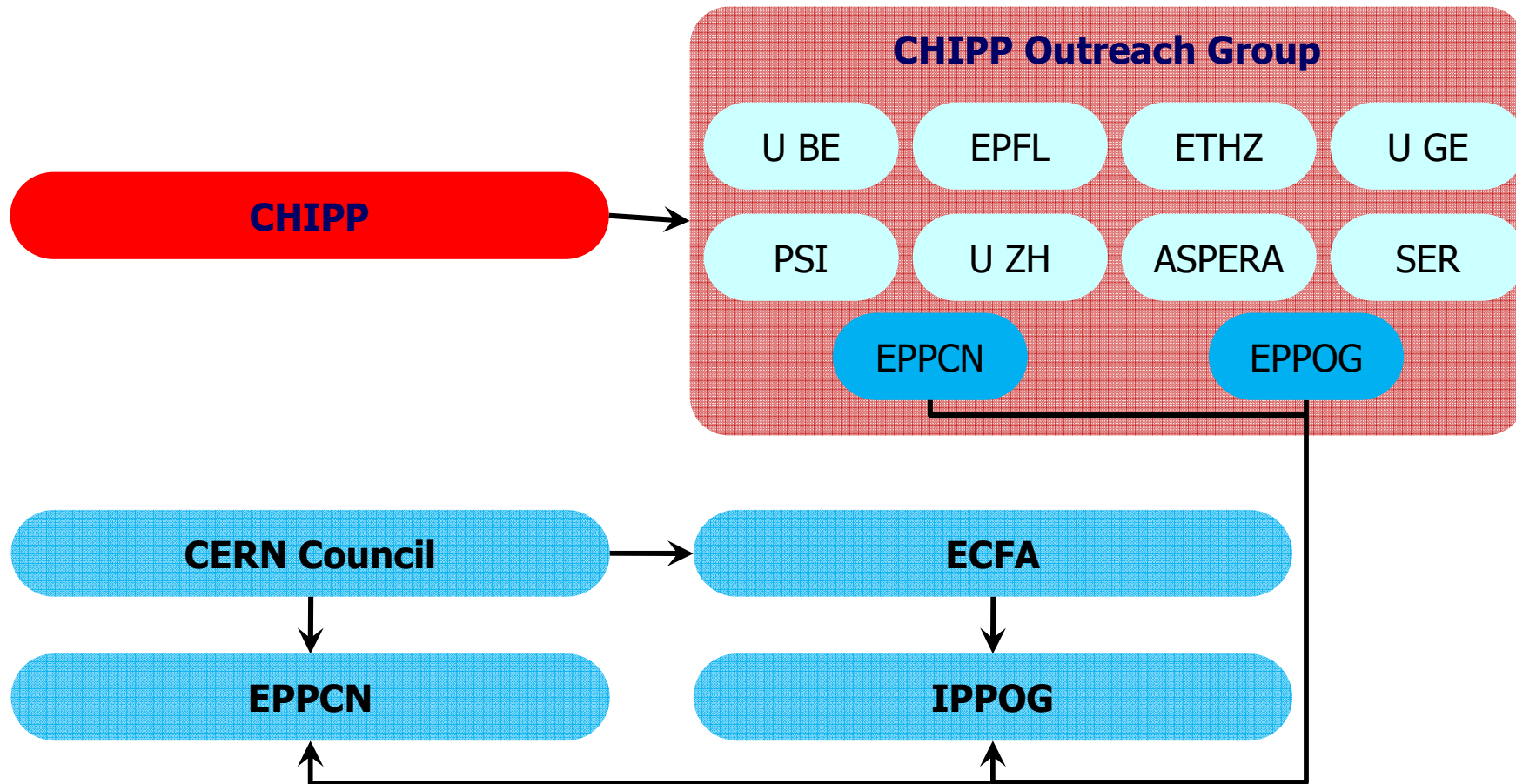


BackUp

Swiss Web Sites



CHIPP Outreach Group



CHIPP Outreach Group

One **delegate** (+one **alternate**) physicists from every CHIPP site
 – alternate physicist to ensure better coverage of activities at each site
 not (necessarily) required to participate in meetings

One **delegate** from **ASPERA, EPPCN, EPPOG & SER**

<u>Bern</u>	HP Beck (chair) & <u>EPPOG</u> Thomas Becher	contact alternate
<u>EPFL</u>	Frederic Blanc Aurelio Bay	contact alternate
<u>ETHZ</u>	Christoph Grab vacant	contact alternate
<u>Geneva</u>	Olivier Gaumer Bernard Révaz & <u>ASPERA</u>	contact alternate
<u>PSI</u>	Tilman Rohe Malte Hildebrand	contact alternate
<u>Zürich</u>	Angela Buechler-Gehrmann Teresa Marrodan-Undagoitia Vincenzo Chiochia	contact alternate
<u>SER</u>	Bettina Mühlebach	
<u>EPPCN</u>	vacant	