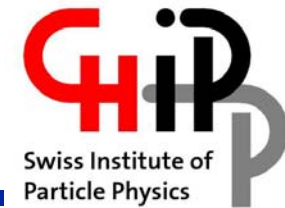


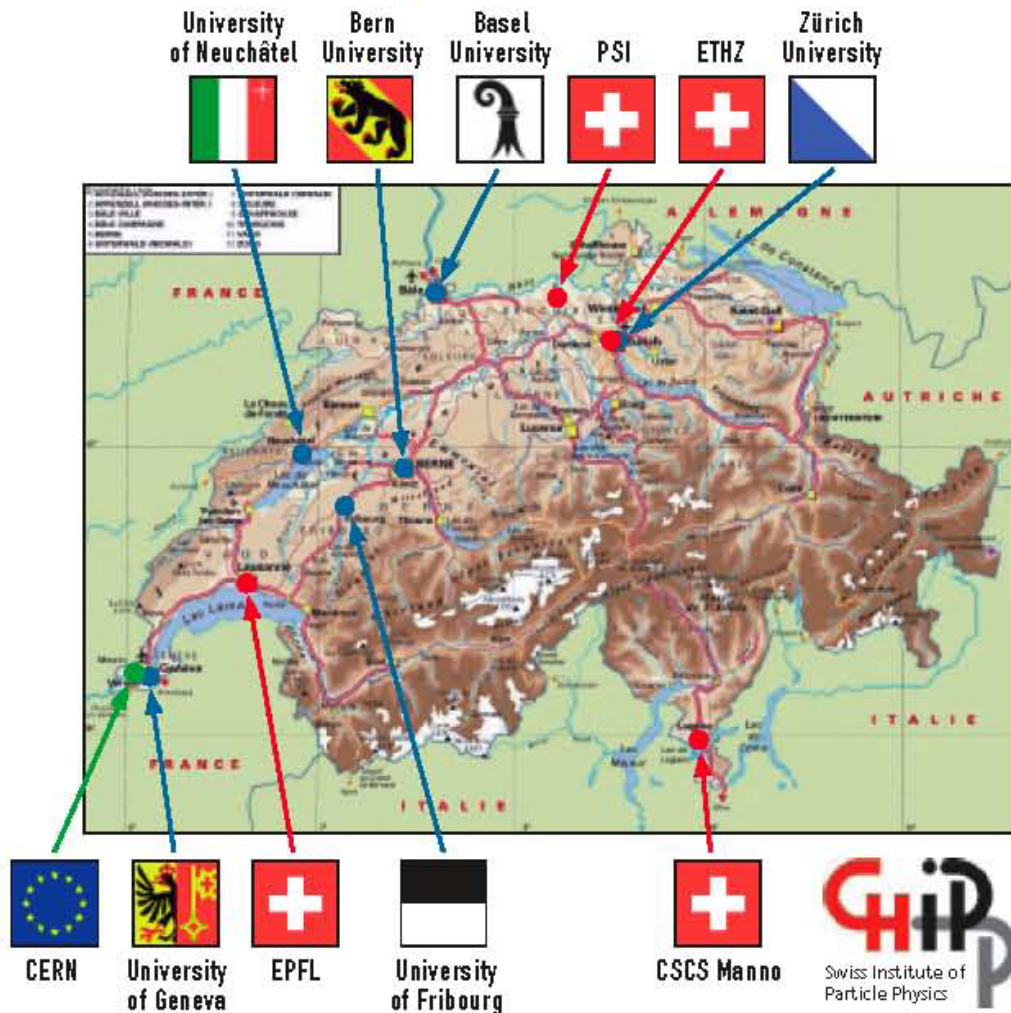
# CHIPP - Report of CHIPP EB



## Content

0. CHIPP web site and data base
1. EB meetings and visits
2. EB subcommittees, and external representation of EB
3. EB activities to date
4. The CHIPP Outlook for Research and Education, and follow-up
5. A summary of forth-coming Workshops and Conferences
  
6. Future activities and concerns of CHIPP
  
7. Fonds National

# CHIPP data base and web site



## Web site

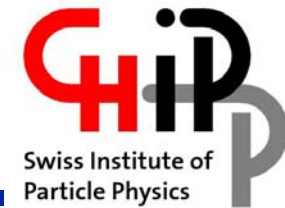
<http://www.chipp.ch>

- minutes of meetings
- job openings
- data base access
- comments please

## Database member access

- list updated by institutes
- mostly OK, please signal problems
- plan automated system for workshop registration etc

# CHIPP EB meetings and visits



## 1. EB meetings

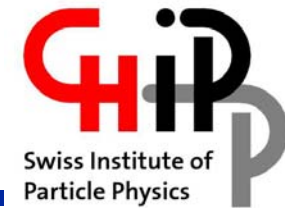
- December 8, 2003 (CERN)
- February 24, 2004 (UniZh)
- March 8, 2004 (EPFL)
- April 16, 2004 (UniNe)
- June 2, 2004 (CERN)

2. Visits much valued by EB members (hopefully others) Learning what is happening, what are problems

3. Visits will continue after summer if valued by CHIPP institutes

4. Summaries of all meetings on [www.chipp.ch/chipp-meet-doc.html](http://www.chipp.ch/chipp-meet-doc.html)

# CHIPP subcommittees, reps to external committees



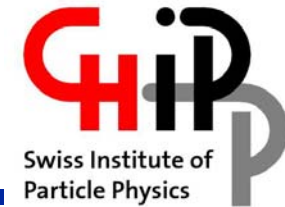
## 1. CHIPP Computing Board

- extremely important duties
- setting up of centre for CHIPP computing in CSCS
- C. Grab elected Chair till Dec 31, 2005
- duty is to define computing needs, and work with CSCS as contractor to ensure implementation (MOU in preparation)
- finance, manpower extremely important for LHC data exploitation, and this needs to be developed in collaboration with CHIPP EB - CSCS hardware, a theoretician attached to each experiment, a software professional attached to each experiment
- CHIPP EB has requested a workshop with invited independent experts in 2004 to prepare for data exploitation (including theorists)

## 2. External representatives

- ECFA** - restricted U. Strauman (10/2003)
  - plenary Q. Ingram (5/1999), T. Speer (7/2002), T. Schietinger (5/2003)
  - *propose Q. Ingram and T. Speer continue until 12/2005 and T. Schietinger until 12/2006*
- Nupecc** - C. Amsler (outside CHIPP). Propose that appointed by CHIPP
- ACCU** - currently K. Freudenreich.
  - *propose that mandate extended to 12/2005*
- European Committee for Astroparticle Physics**
  - approach made concerning membership by Switzerland .
  - *propose that CHIPP EB endorses this*

## EB Activities to date (1)

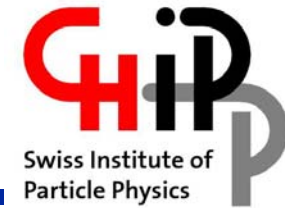


1. Visits to UniZh, EPFL, UniNe
2. CHIPP administration
  - Creation of web site (containing information)
  - Creation of membership data base
  - Creation of logo
3. CHIPP Computing Board
  - A major important role in coming 2 years, needing the community's full support and above all technical commitment - it *MUST* work - thanks to all concerned, despite the difficulties
  - CHIPP has sought funding for hardware from FORCE (*no result so far*)
  - CHIPP has sought funding from SUK (*outright rejection*) - *concern about the process*
  - Clear definition of responsibilities, contractor relation, required (MOU)
  - CHIPP requires a reliable (100%) 24-hour service
4. Particle Physics in Switzerland: Outlook for Research and Education
  - (see following slide)

## EB Activities to date (2)

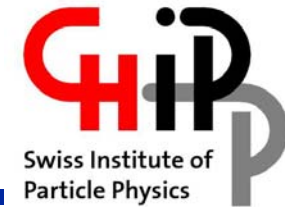
5. Have requested constructive dialogue with Fonds National
  - *Have not yet succeeded in having dialogue, a major problem*
  - *CHIPP offered to host a Division 2 meeting of FN at CERN on 12-13 October, 2004. This has been accepted. This needs careful preparation, especially to show-case Swiss efforts at CERN*
  - *Dialogue on keeping technical teams together, and on commitments in long-term international commitments, is absolutely essential with FN and OFES if those bodies want good science.*
6. The CHIPP EB has agreed with OFES to hold a special Plenary Meeting of CHIPP on afternoon of October 1, in Berne.
  - Will be attended by Secretary of State Klieber
  - Will be entitled "Fifty years of CERN in Switzerland - the Past, Present and Future"
  - This will be open to the public, including the Fonds National, the OFES, the university rectors, etc. **The CHIPP Board will hopefully appoint an Organising Committee today.** It will include displays. CHIPP EB counts on strong OFES support.

## EB Activities to date (3)



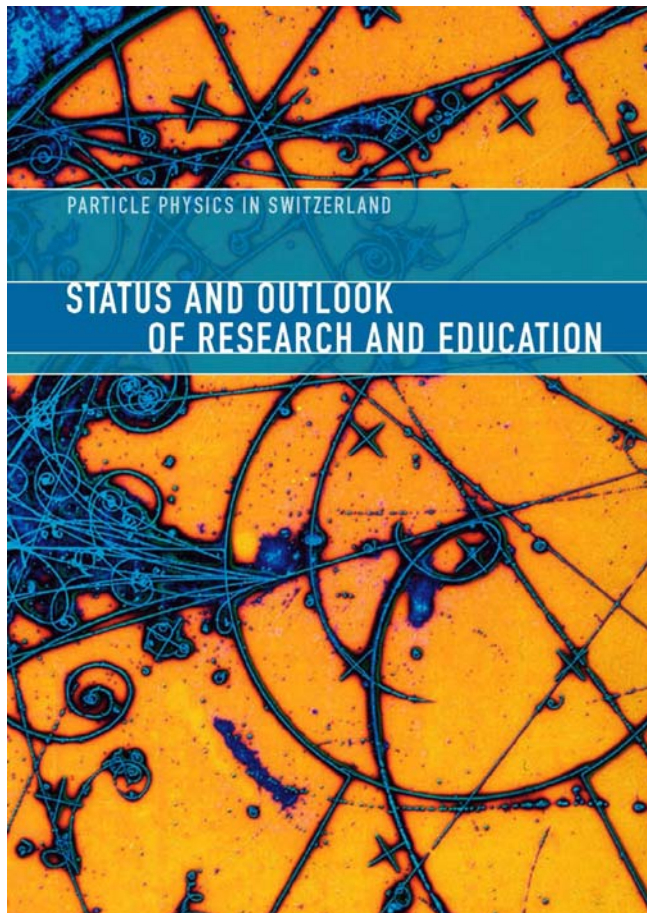
5. As follow-up to Outlook document, CHIPP hosted a very successful neutrino workshop at University of Neuchatel, 21-22 June, 2004.
  - What will be the result?
  - Further workshop likely to be needed
  - CHIPP EB convinced of value of workshops with international experts to help a cohesive physics-based strategy. It will pursue this vigorously
6. CHIPP has agreed to sponsor the HCP2005 Conference, to be combined with the LHC Symposium, in Switzerland in Sept-Oct 2005.
7. CHIPP has submitted a request to SUK for funding of CHIPP doctoral school activities. This was submitted through UniNe. Result not yet known.

# A summary of forthcoming CHIPP meetings



1. CHIPP Plenary meeting: "50 years of CERN in Switzerland - the Past, present and Future", October 1, 2004, Berne
2. Meeting of FN Division 2 at CERN and Geneva, 12-13 October, 2004. Hosted by CHIPP, and including visits to Swiss activities at CERN
3. HCP2005 and LHC Symposium Conference, Sept-October 2005. Sponsored by CHIPP (with UniZh, ETHZ, UniGe) and CERN.
4. Topical workshops with international experts, as follow-up to Outlook document.
  - Aim: to define strategy in 3 axes of research
  - To encourage physics-based consensus on key experimental and theory activities
  - To ensure independent experts, and written conclusions/follow-up.
  - In Fall 2004 and Winter 2005:
    - Workshop with theorists and computing experts on preparing for data exploitation at the LHC
    - Workshop (in collaboration with astrophysics community) to explore strategy for experiments in fundamental particle physics at interface with cosmology
    - Follow-up workshop for the neutrino program(?)

## Follow-up: CH Outlook in Particle Physics (1)



- The report recommends 3 main axes of involvement in major experimental initiatives over coming 15 years
  - ❖ Experiments at the frontier of high energy interactions between fundamental particles\*\*
  - ❖ Experiments at the Neutrino Frontier
  - ❖ Experiments at the Interface of Particle Physics with Cosmology
- The report makes recommendations on accelerator R&D
- The report makes recommendations on Particle Physics Education\*\*

\*\* Initial priority task of CHIPP EB

## Follow-up: CH Outlook in Particle Physics (2)

### ❖ Experiments at the frontier of high energy interactions between fundamental particles

#### *Recommendation 1 – LHC*

*The physics exploitation of the LHC is the first priority of the particle physics programme in Switzerland. CHIPP recommends that resources are provided to exploit the physics data of the LHC and to cover the maintenance and operation costs of Swiss participation in the LHC experiments. This is essential given the commitment of Switzerland to CERN and the LHC programme and the extended timescale of physics exploitation.*

### ❖ *experiments must be resolved in the short term (2004)*

- Enable progress of other axes
- Be ready for the data of LHC

#### • CHIPP viewpoint:

- M&O and computing costs are essential costs to CERN and CSCS, if CH wants participation (direct payment strongly recommended)
- Human resources for LHC experiments
  - Very desirable that at least 1 CH theory post-doc is attached to each experiment as a participant
- Human resources for LHC experiments
  - Essential that at least 1 CH "Computing Physicist" is attached to each experiment over extended period.

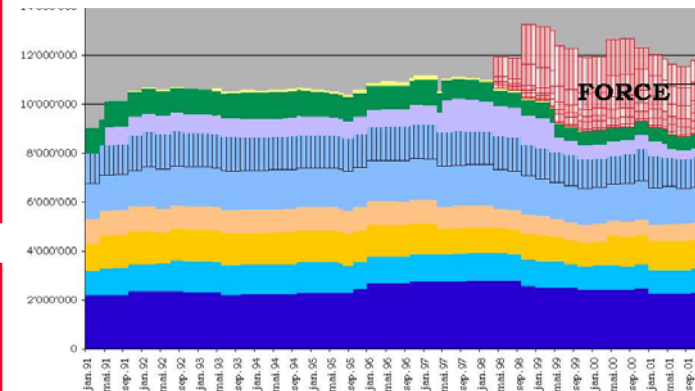
## Follow-up: CH Outlook in Particle Physics (3)

- M&O document being updated for LHC
  - Includes M&O to experiments
  - Includes C&I to experiments
  - Includes Computing costs
  - Includes personnel needs
- CHIPP EB would like to understand expected 5-year funding and personnel needs, as seen by each institute/group, for all non-LHC experimental activities.  
(15 September)

- Situation cannot continue as at present if CH wants to make an impact
  - Seek CHIPP EB meeting with Secretary of State
  - Seek dialogue with FN on long term projects
  - Seek an operating budget to do its job

# Fonds National and FORCE (1)

1. Fonds National- drop in funding continues (~5% mean in 2004, 80% salaries) (encore >15% 2002-4)



2. FORCE

2003: 3.207 MCHF

LHCb: 300K EPFL 200K UniZh

CMS 1500K ETHZ 300K UniZh

ATLAS 600L UniBe 707K UniGe

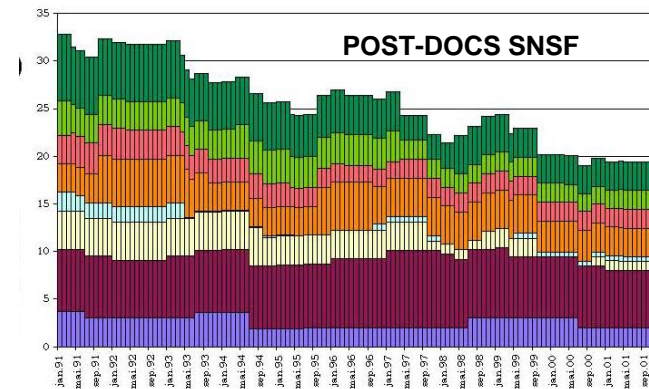
Opera 300K UniNe

Caps (FN):

LHCb 4 MCHF

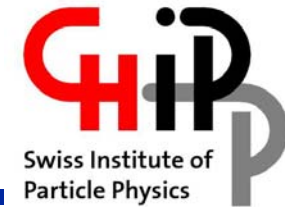
ATLAS 8.5 MCHF+over-run

CMS 8.5 MCHF



**PROBLEMS:** LHC M&O, computing, exploitation

## Fonds National and FORCE (2)



- Maintenance & Operation (M&O) et Commission & Integration (C&I)

	2004	2005	2006	2007	2008	2009
ATLAS	314.0	349.0	264.0	325.0	354.0	382.0
CMS	137.0	228.0	343.0	480.0	767.0	807.0
LHCb	30.0	47.0	84.0	240.0	240.0	240.0
Total KCHF	481.0	624.0	691.0	1065.0	1361.0	1429.0

### Data Handling (Computing)

- ❖ CERN (Tier 1 Grid) - presently assumed no payment
- ❖ Manno (Tier 2 Grid) - estimates shown
- ❖ Institutes (Tier 3 Grid) - assume FN and Canton

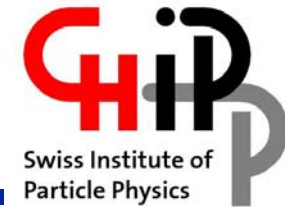
Total Manno KCHF	2004	2005	2006	2007	2008	2009
	130	350	250	240	590	550

Present evolving estimate: *re-evaluation in progress*

Differences between CMS, ATLAS, LHCb being studied<sup>©</sup>

These numbers do not include manpower needs noted previously  
(3 FTE "Computing Physicists" and 3 Phenomenologists)

## Fonds National and FORCE (3)



- Needs of CHIPP to do its job
  - M&O, computing, exploitation costs of LHC should be solved soon
  - This is needed to retain an adequate programme outside LHC
  
- Scientific evaluation committees - we have to develop a structure more akin to other countries if the scientific programme is to be achieved
  
- A CHIPP operation budget - it needs the ability to make decisions, and to be respected for its decisions
  
- Recognition by FN that CHIPP is (+)ve news, not (-)ve news
  
- Recognition by CHIPP members that your future depends on CHIPP success