

Český učitelský týden v CERN

**Mgr. Jaroslav Salák
březen 2009**

Cestou.....



... na dohled od velké Bílé
Hory ...



... leží CERN ...



ČR řádným členem od roku 1994, roční vklad 150 mil Kč, letos MŠ účast ukončilo





Site de meylin
200m
RECEPTION
Microcost

ZONE
50
LABORATOIRES NON FUMABLES
NOT LABORATORIES SMOKING PERMITTED

CERN
DOMAINE
PLACE SOUS LE
CONTROLE DE L'ORGANISATION
SITE UNDER THE
ORGANISATION'S
CONTROL



Pojmenování ulic



Základní informace o LHC

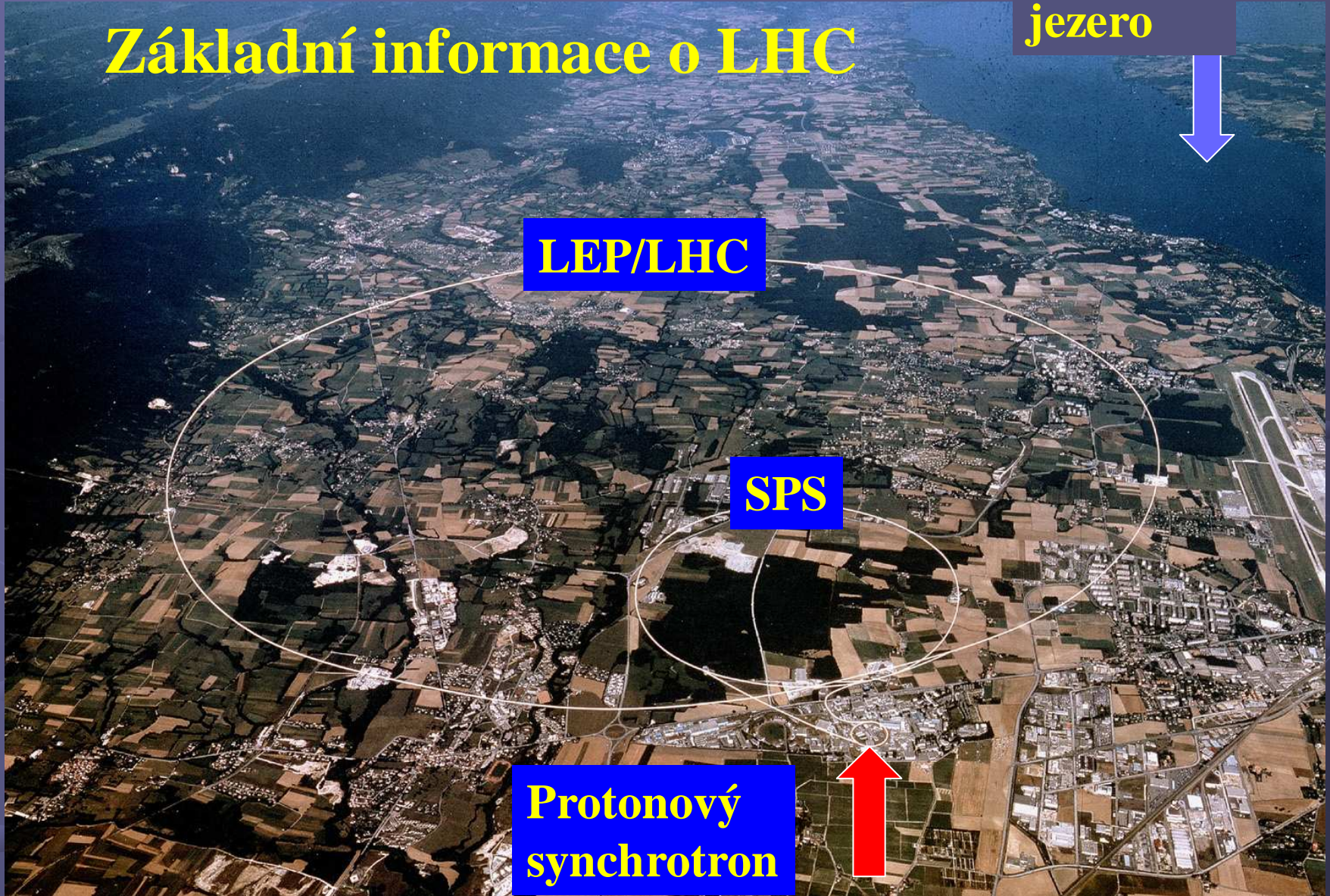
Ženevské
jezero



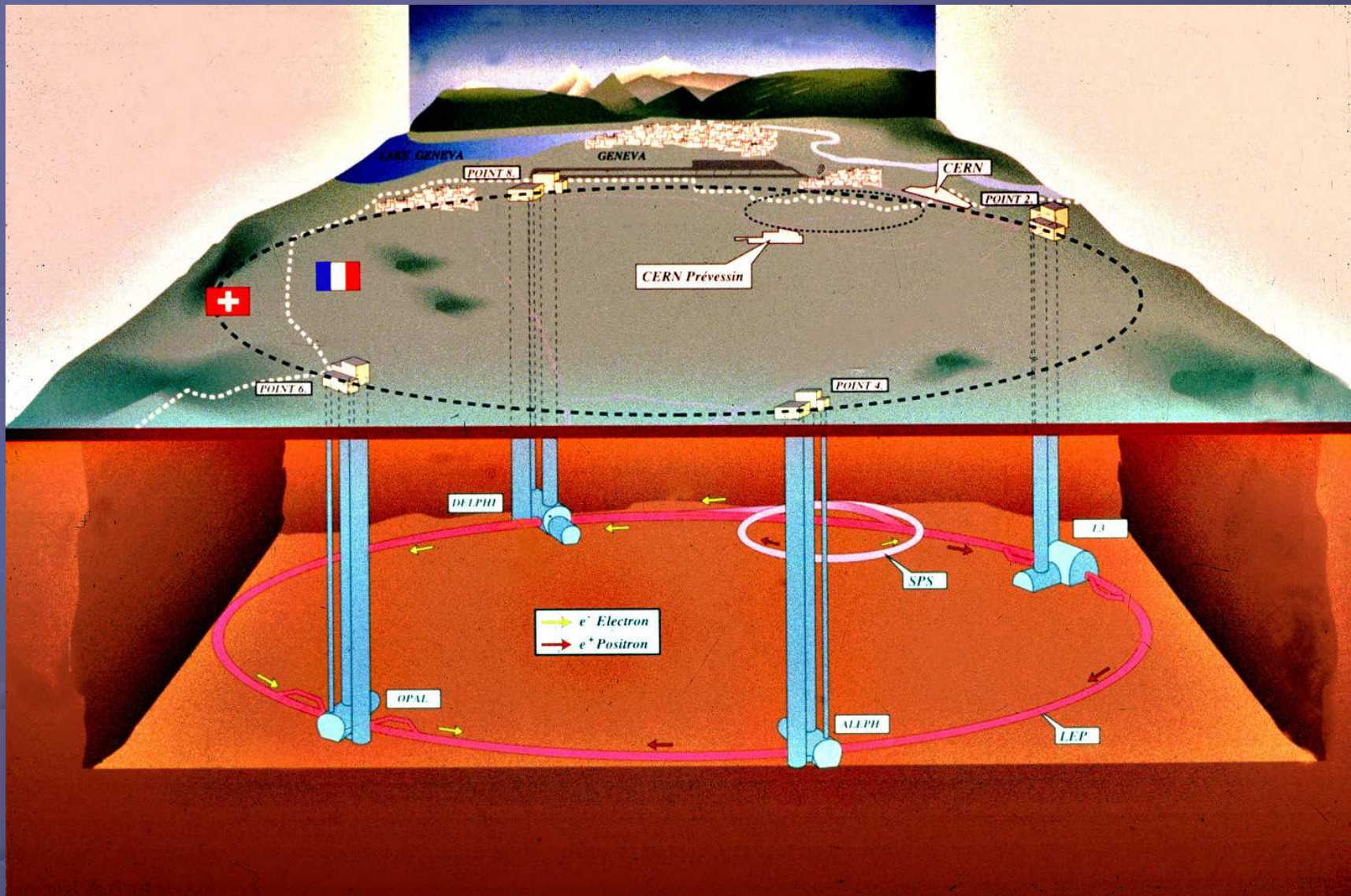
LEP/LHC

SPS

Protonový
synchrotron



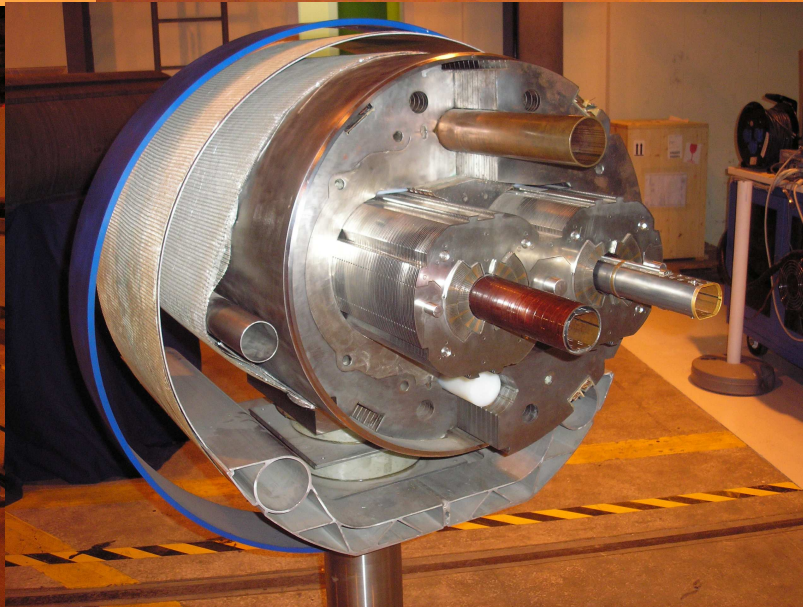
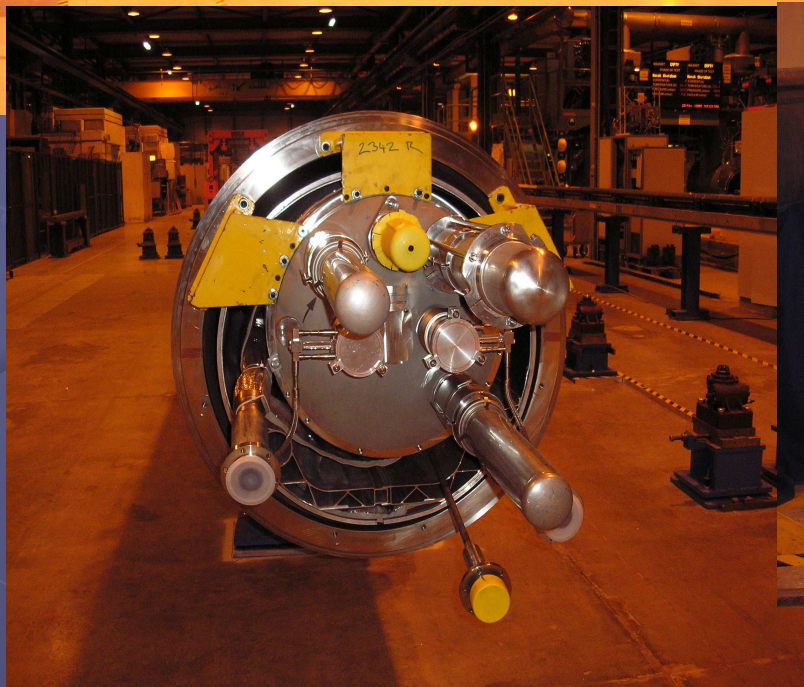
Tunel LHC je 27 km dlouhý a cca 100 metrů pod zemí

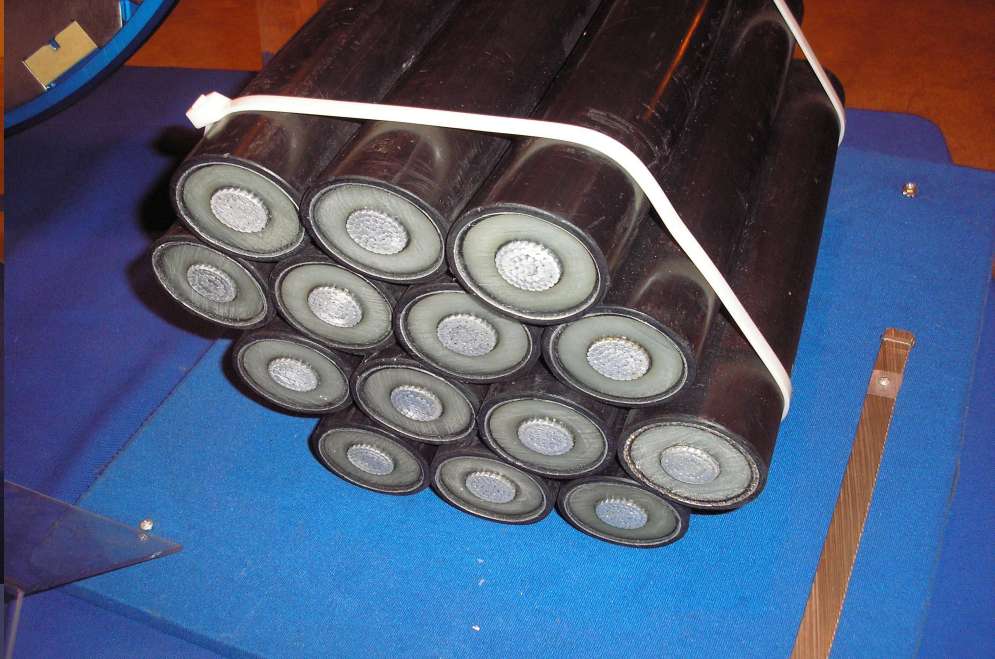
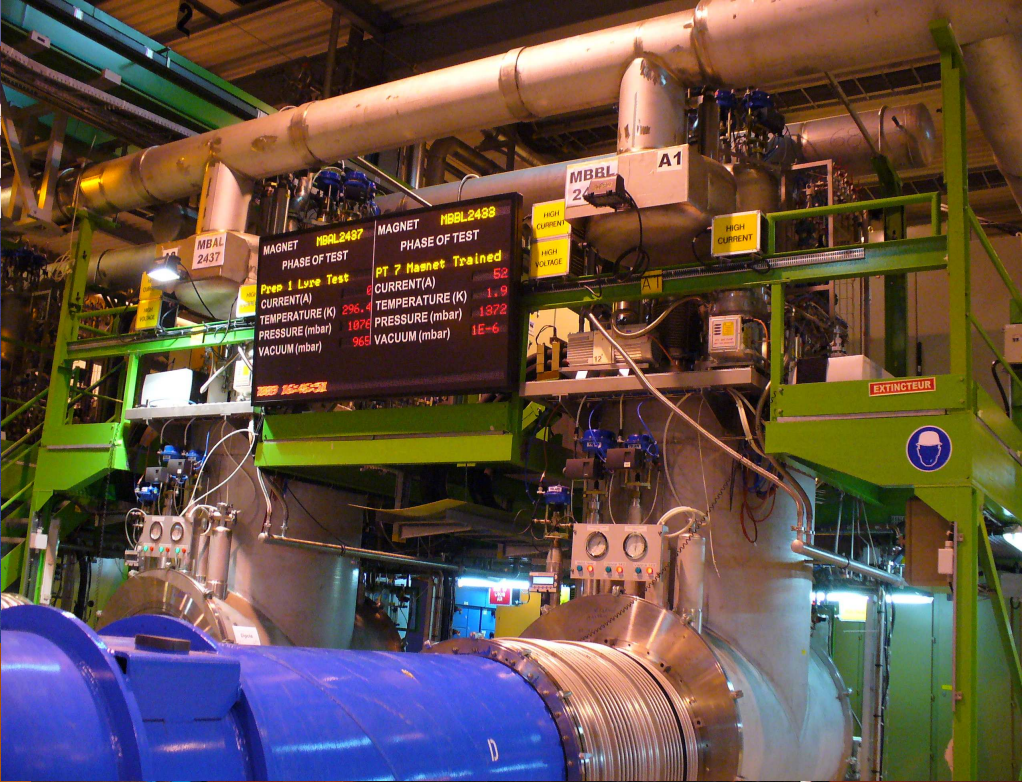


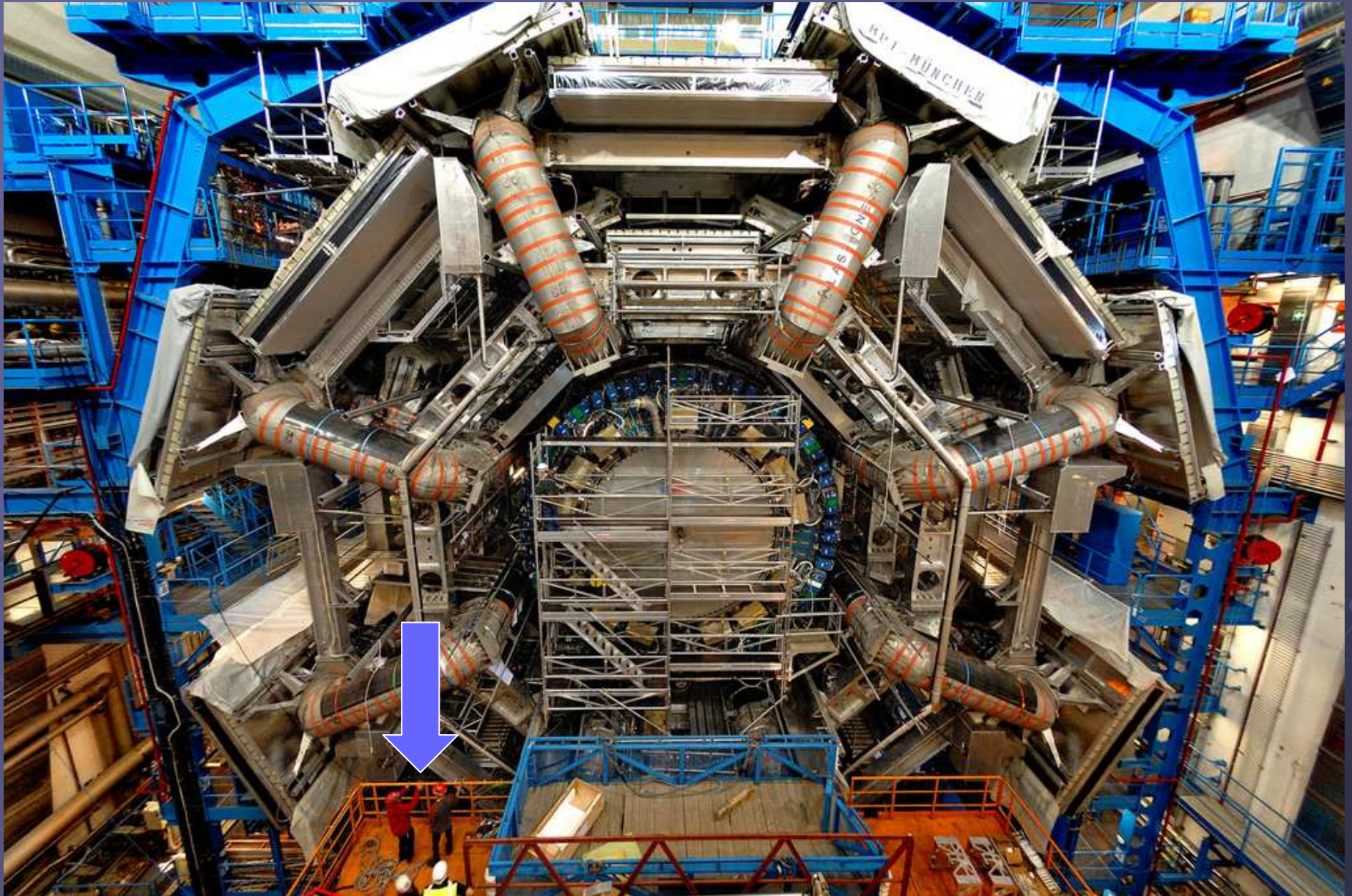




Oprava poškozených částí







Bezpečnostní opatření při vstupu - Atlas



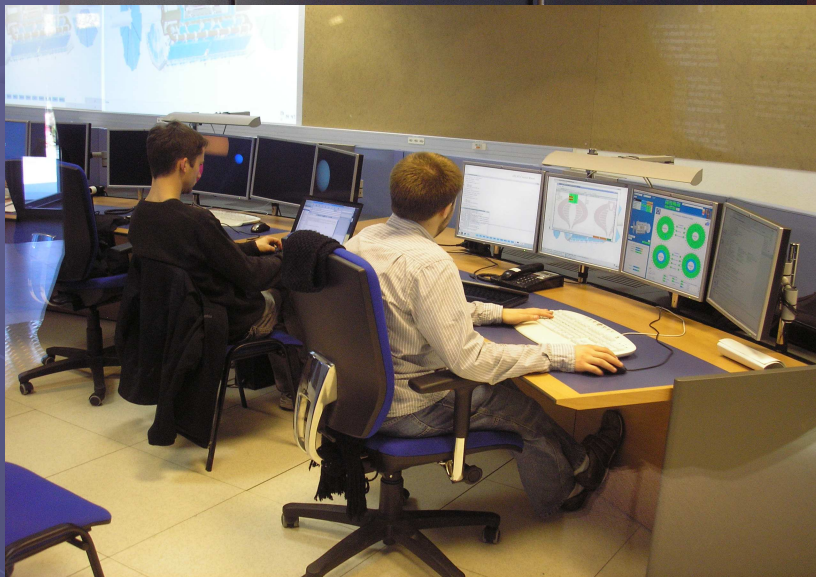
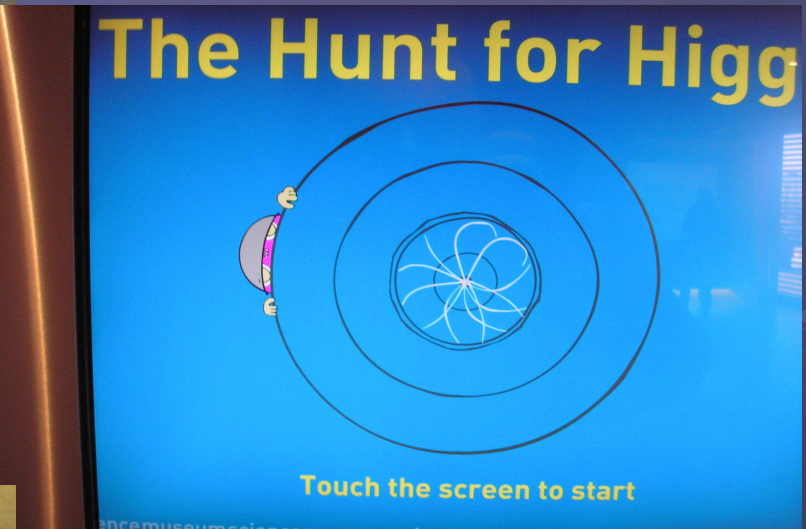
Na povrchu



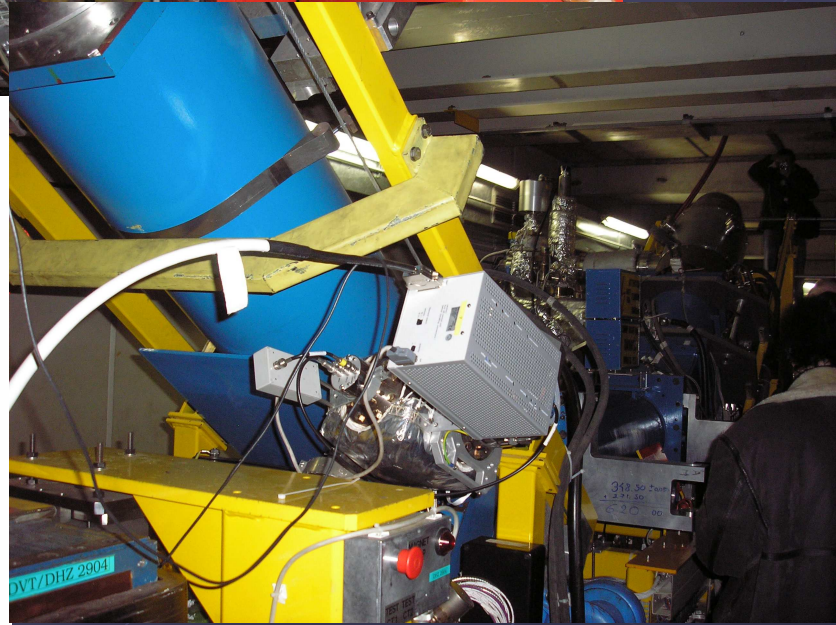
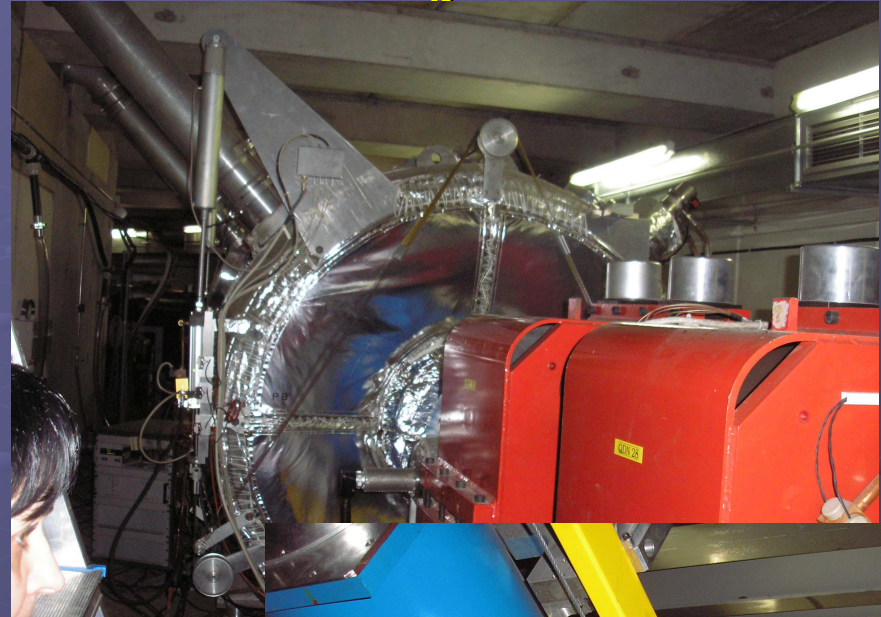
v podzemí



Řídící a informační centrum



Cyklotron – antiproton, antihmota – to už je běžná záležitost

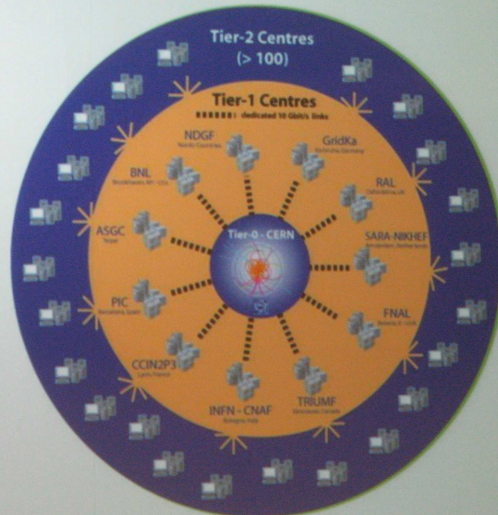


Náročné přednášky



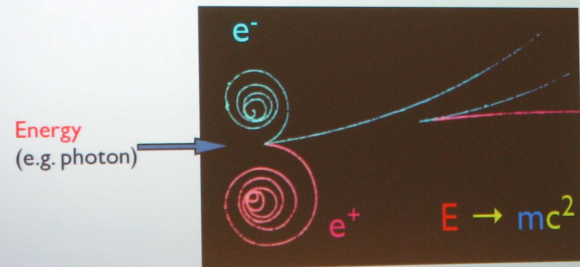
LCG Computing Grid project (LCG)

- More than 140 computing centres
- 12 large centres for primary data management: CERN (Tier-0) and eleven Tier-1s
- 38 federations of smaller Tier-2 centres
- 20 countries involved



2 How is antimatter made ?

Energy is converted to mass



Mass of electron and positron

Antimatter Mysteries



přednášky

Elektromagnetické síly Foton



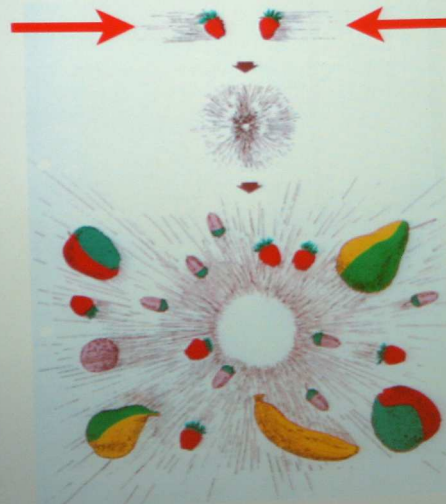
základní vlastnosti:

- působí jen na elektricky nabitě částice

2008

21

2 How is antimatter made ?



New particles and antiparticles are created in collisions

Antimatter Mysteries

21

egee
Enabling Grids
for E-science

Scheduled at 15:30
Running at 16:00

The LHC Computing Grid

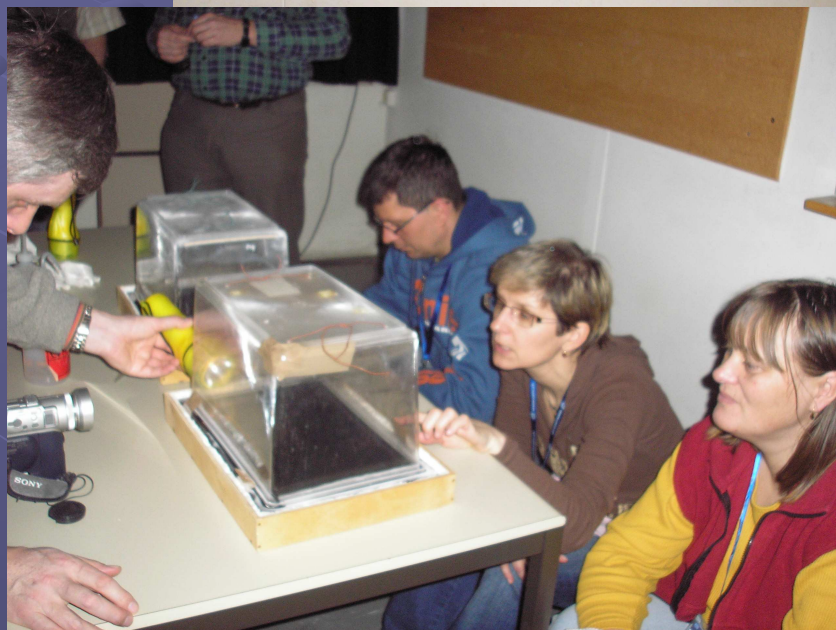
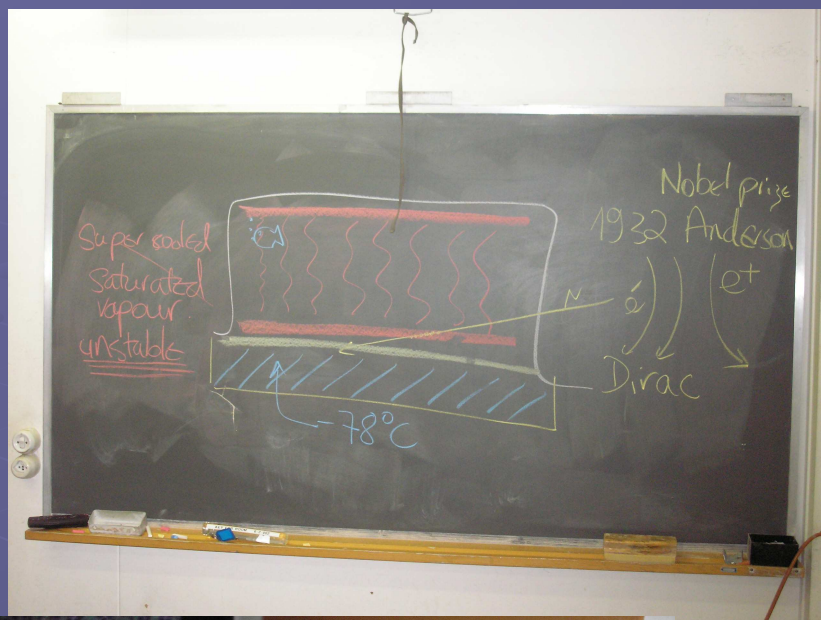
09:25:20 UTC

GridPP
at computing for particle physics

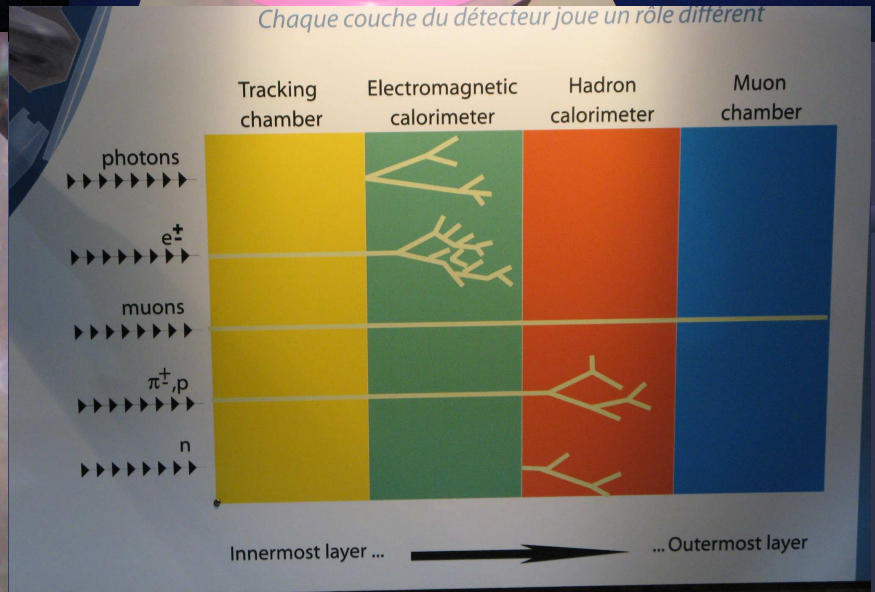
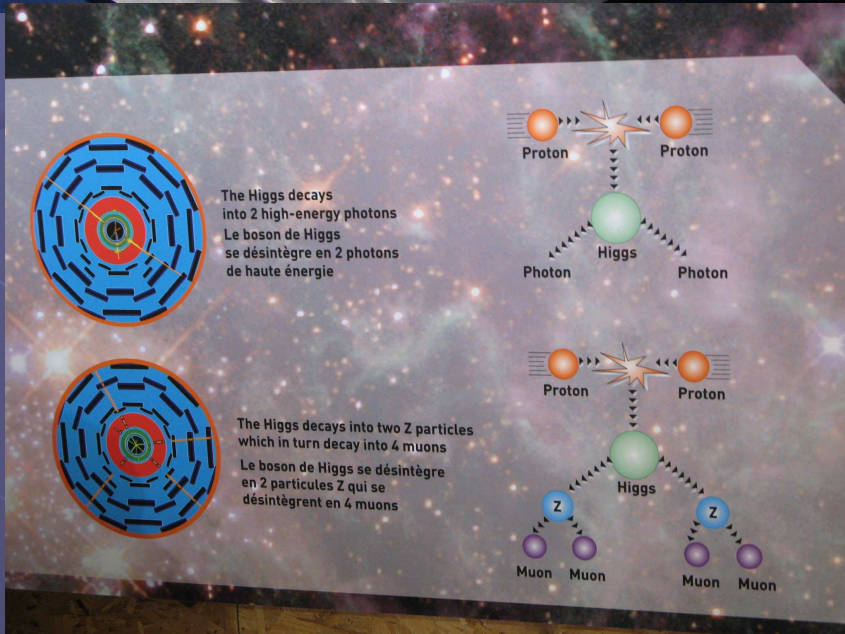
Experiment ATLAS v CERN

Komplexní soustava (sub)detektorů
univerzálního zaměření
na urychlovači LHC

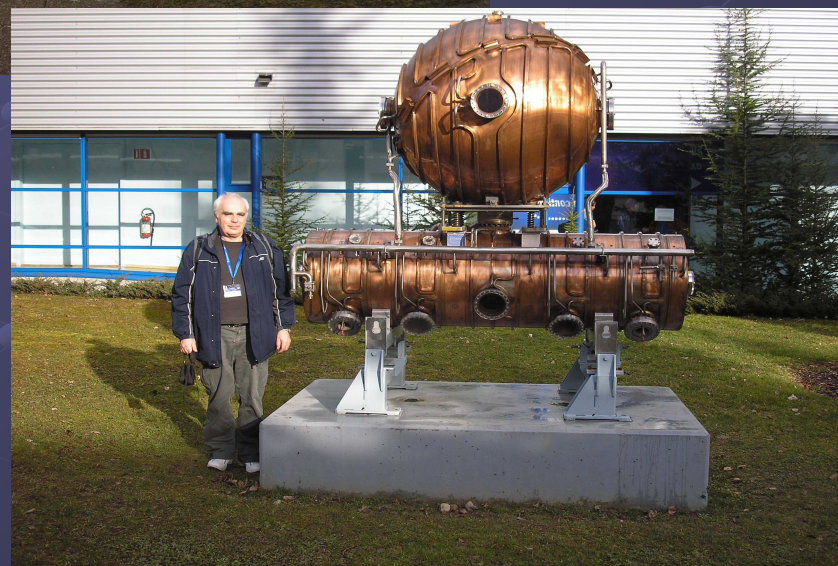
Mlžná komora = detekce částic z kosmu



mikrokosmos



historie




bublinková komora

● Fotografie – dráhy částic

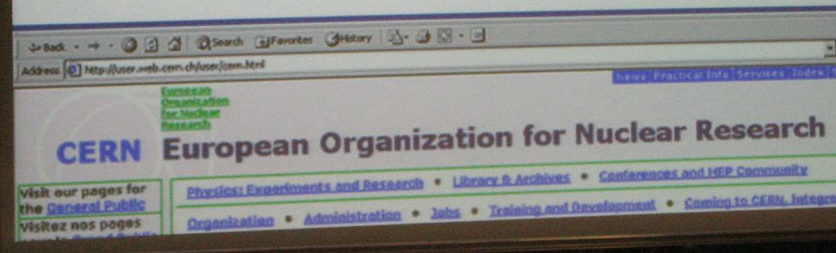
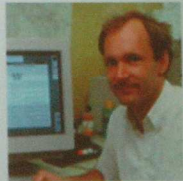


Informační systém



What is CERN?

The World Wide Web was invented here, to improve and speed-up the information sharing between physicists working all over the world!



Address: <http://user.web.cern.ch/user/lan.html>

CERN European Organization for Nuclear Research

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WHERE THE WEB WAS BORN

In the offices of this corridor, all the fundamental technologies of the World Wide Web were developed.

Started in 1990 from a proposal made by Tim Berners-Lee in 1989, the effort was first divided between an office in building 31 of the Computing and Networking Division (CN) and one in building 2 of the Electronics and Computing for Physics Division (ECP).

In 1991 the team came together in these offices, then belonging to ECP. It was composed of two CERN staff members, Tim Berners-Lee (GB) and Robert Cailliau (BE), aided by a number of Fellows, Technical Students, a Coopérant and Summer Students.

At the end of 1994 Tim Berners-Lee left CERN to direct the WWW Consortium (W3C), a world-wide organization devoted to leading the Web to its full potential. The W3C was founded with the help of CERN, the European Commission, the Massachusetts Institute of Technology (MIT), the Institut National pour la Recherche en Informatique et en Automatique (INRIA), and the Advanced Research Projects Agency (ARPA).

In 1995 Tim Berners-Lee and Robert Cailliau received the ACM Software System Award for the World Wide Web. In 2004, Tim Berners-Lee was awarded the first Millennium Technology Prize by the Finnish Technology Award Foundation.

The CERN Library
June 2004



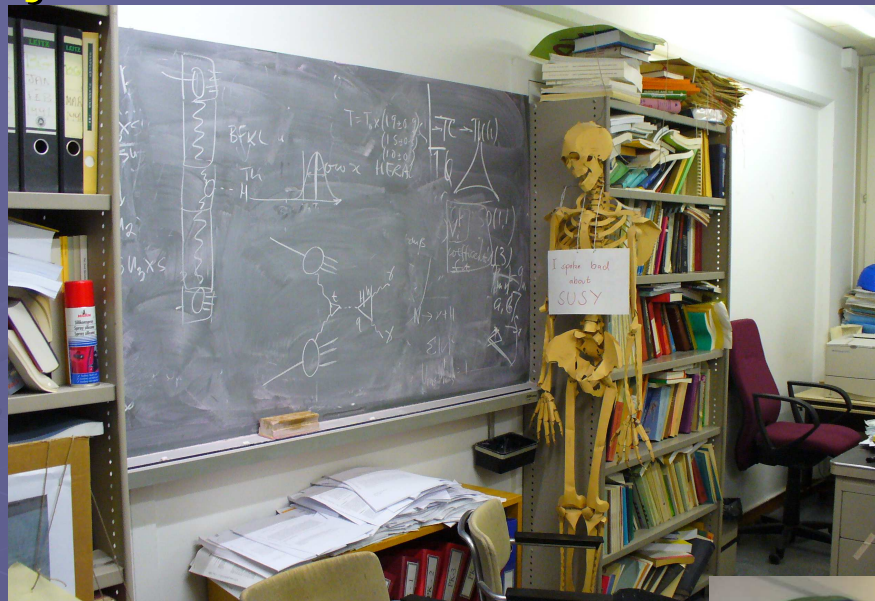
to je CERN



CERN



i to je CERN



Organizátoři:

Ústav částicové a jaderné fyziky (UK – MFF Praha)

Vysočina Education

Gymnázium Žďár nad Sázavou

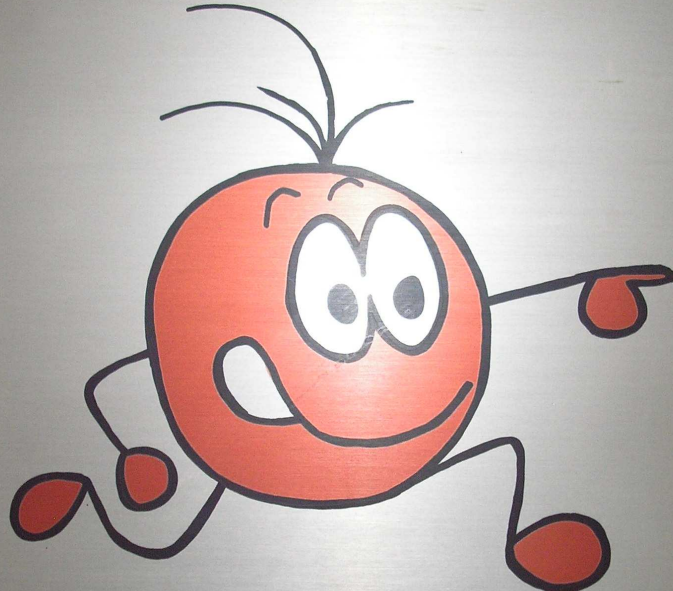
Financování:

kraj Vysočina

Ústav částicové a jaderné fyziky

CERN

školy + účastníci



dan 2010