



Teaching Resources Working Group

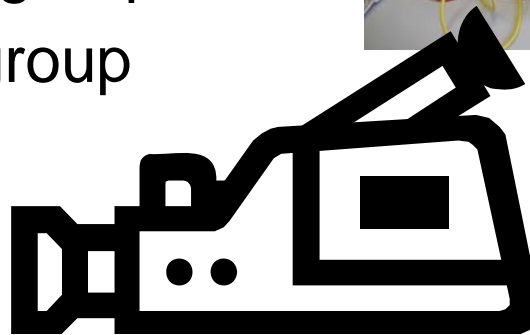
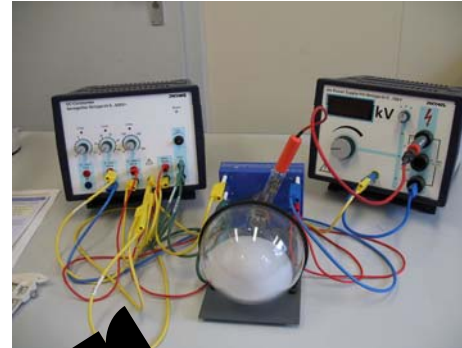
Julian Merkert, Sascha Schmeling

Teaching Resources Working Group



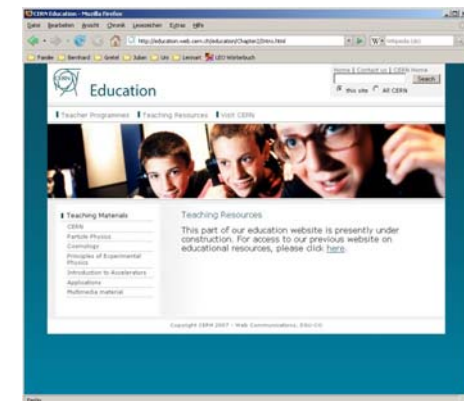
3 sub-groups:

- experimental group
- multimedia / video group
- educational visits group



Additionally:

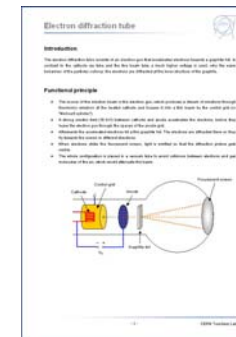
- CERN Teaching Resources Website



Experimental Sub-Group



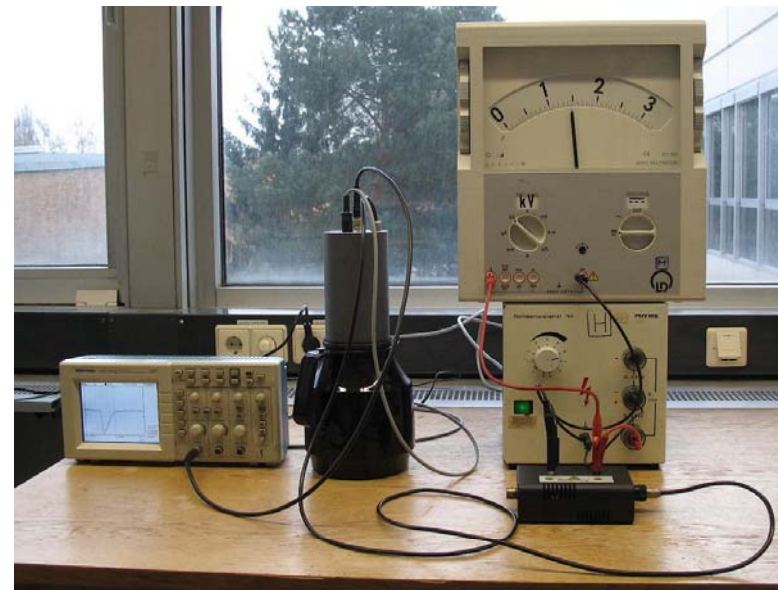
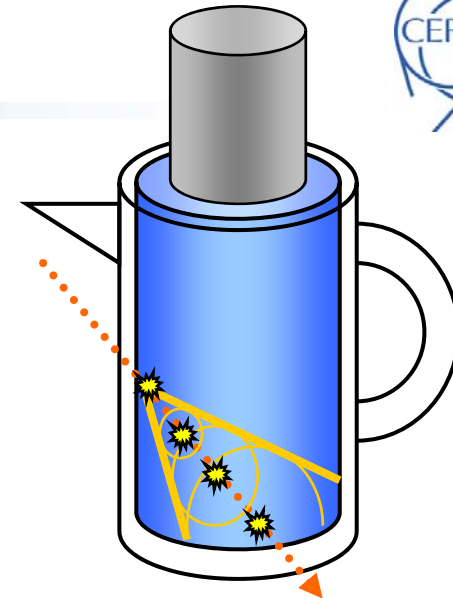
- conduct the five existing experiments at Teacher's Lab
- improve and translate the documentation of the experiments
- brainstorm lab arrangement and equipment
- investigate additional hands-on activities



Experimental Sub-Group



- 2 additional experiments:
 - Myon Pot
 - Single Photon Detector

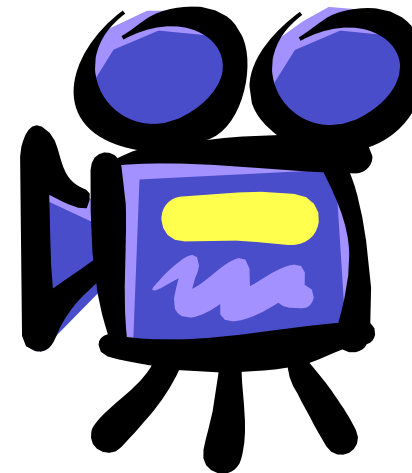
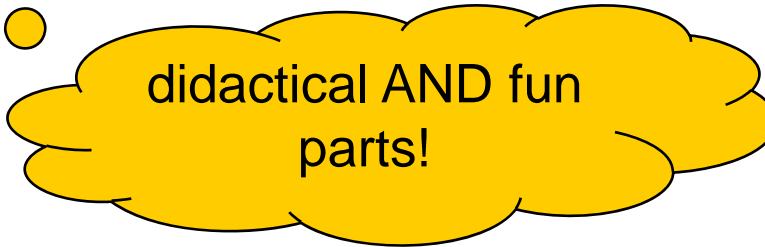


Multimedia / Video Sub-Group



- Produce „science snippets“, 5-10 min videos containing
 - Slides
 - Text
 - Animations
 - Interviews
 - Questions and Answers
 - Video Recordings
 - Quiz

- Plus:
 - Instructions on how to use
 - References to find out more



Multimedia / video sub-group



- **Goal**
allow teachers to impress/inspire/motivate their students by an interesting and well-presented piece of modern science/physics
- **Method**
by selecting a specific topic from a menu of 'science snippets', available through our teaching resources website, which can be linked (more or less directly) to a topic from the curriculum

Multimedia / Video Sub-Group



- Possible topics:
 - LHC – Overview
 - LHC – Magnets
 - LHC – Superconductivity
 - LHC – Acceleration by Electric Fields
 - LHC – Vacuum

 - Detectors – ATLAS/CMS – Overview
 - Detectors – ATLAS/CMS – Tracker ('ionization')
 - Detectors – ATLAS/CMS – Calorimeter ('photons')

 - Particles – Converting Energy into Mass ('strawberry collisions')
 - Particles – Antimatter
 - Particles – Higgs
 - Particles – Dark Matter/Supersymmetry
 - Particles – Black Holes

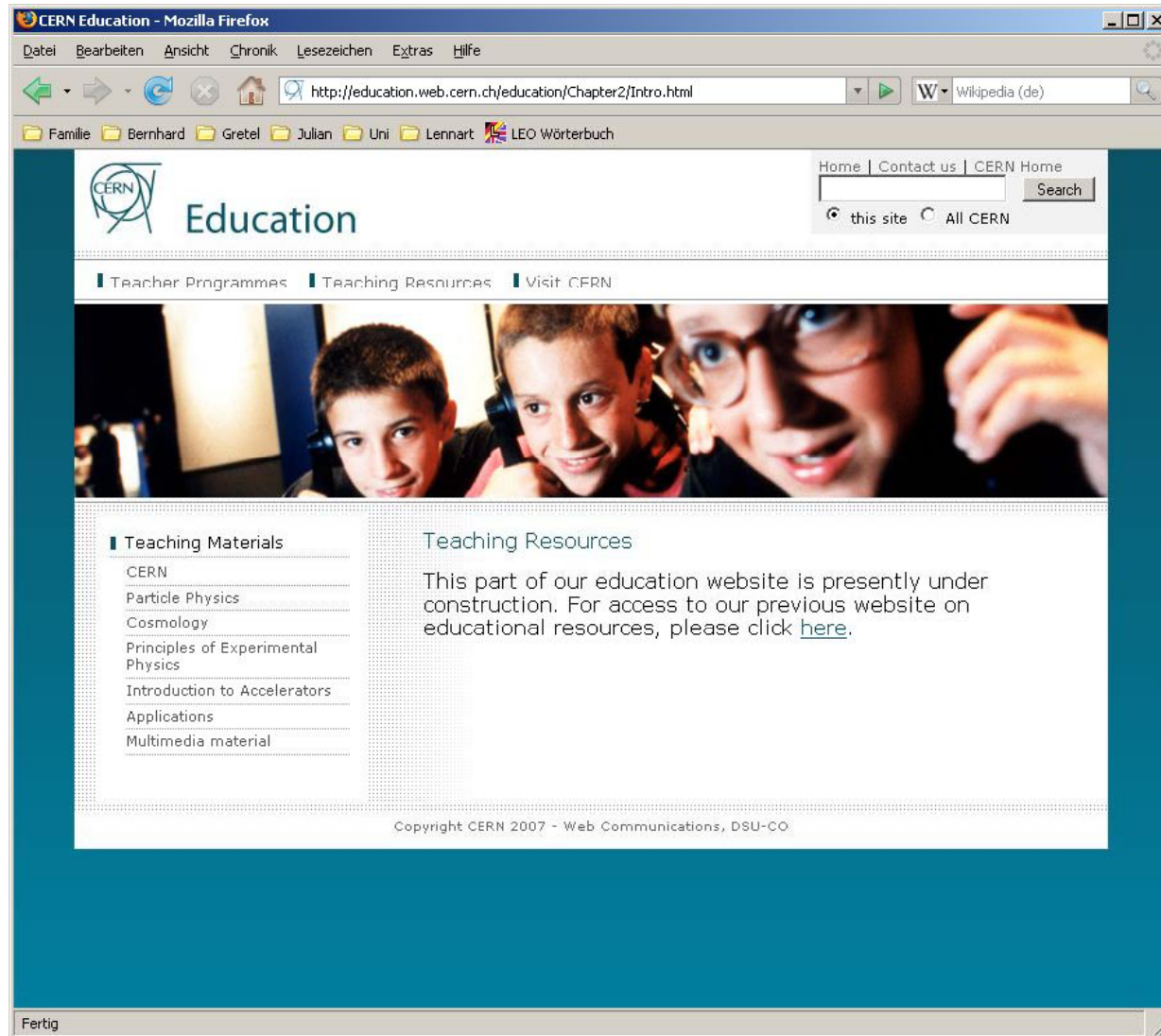
Educational Visits at CERN



- CERN will close visitor access to LHC underground areas
- Many interesting surface sites exist
- What would you want to see or show in a CERN visit?
- Be the ones who develop CERN's offer for educational visits!

Be creative!
... and snoop around ...

CERN Teaching Resources website



CERN Teaching Resources website



The screenshot shows a Mozilla Firefox browser window titled "CERN Education - Mozilla Firefox". The address bar displays the URL "http://education.web.cern.ch/education/Chapter2/Intro.html". The browser's menu bar includes "Datei", "Bearbeiten", "Ansicht", "Chronik", "Lesezeichen", "Extras", and "Hilfe". The browser's toolbar shows navigation buttons and a search bar with "Wikipedia (de)" entered. The browser's status bar at the bottom left shows "Fertig".

The website content includes the CERN logo and the word "Education" in a large blue font. A navigation menu contains "Teacher Programmes", "Teaching Resources", and "Visit CERN". Below the menu is a photograph of three young people using mobile phones. A red oval highlights a section titled "Teaching Resources" which contains the text: "This part of our education website is presently under construction. For access to our previous website on educational resources, please click [here](#)." To the left of this section is a "Teaching Materials" menu with links to "CERN", "Particle Physics", "Cosmology", "Principles of Experimental Physics", "Introduction to Accelerators", "Applications", and "Multimedia material". The footer of the page reads "Copyright CERN 2007 - Web Communications, DSU-CO".

CERN Teaching Resources website



- Test page: cern.ch/physicsteaching

- Features:
 - multilingual
 - all CERN teaching materials available from one single point

- Tasks:
 - translation of the national parts
 - change to CERN official homepage design / template