

Around the World

From CERN: CERN management confirms new LHC restart schedule



Transport of a LHC magnet to the surface in order to be repaired. Credit: CERN

Geneva, 9 February 2009. CERN management today confirmed the restart schedule for the Large Hadron Collider (LHC) resulting from the recommendations from last week's Chamonix workshop. The new schedule foresees first beams in the LHC at the end of September this year, with collisions following in late October. A short technical stop has also been foreseen over the Christmas period. The LHC will then run through to autumn next year, ensuring that the experiments have adequate data to carry out their first new physics analyses and have results to announce in 2010. The new schedule also permits the possible collisions of lead ions in 2010.

[Read more...](#)

Read also CERN's 6 February press release: "[CERN to set goals for first LHC physics](#)" on the Chamonix workshop recommendations.

Calendar

Upcoming meetings, conferences, workshops

[TH Institute: From the LHC to a Future Collider](#)
CERN
9-27 February 2009

[ILD Workshop](#)
Ewha Womans University, Seoul, Korea
16-18 February 2009

[Silicon Detector Design Study](#)

Feature Story

Digging deep

Conventional facilities crew hooks up with European XFEL experts



Thomas Hott (centre) explains the set-up of the future XFEL accelerator tunnel in a life-size mock-up on the DESY campus.

The small town of Schenefeld just outside Hamburg in northern Germany isn't exactly known for its sights or its tourism. Many Schenefeld citizens, however, have recently become tourists in their own neighbourhood: ever since the construction works for the European XFEL started on 8 January, the building site sees a steady flow of visitors stopping by on or from their way to the shops, checking on progress, curious about their new neighbour. While the whole ILC project can learn a lot from this curiosity (namely establishing good contact with neighbours when construction for the collider starts), one specific group is digging deeper: the 'conventional facilities and siting (CF&S)' team is establishing close contacts to experts working on the European XFEL to learn from them and to help when possible.

[Read more...](#)

-- Barbara Warmbein

In the News

From *AFP*
10 February 2009
Cern: le redémarrage de l'accélérateur de particules LHC à nouveau reporté

Cette nouvelle date a été jugée "prudente" par M. Heuer, car elle permet d'assurer "que tous les travaux nécessaires ont été faits sur le LHC avant qu'il ne redémarre. De plus, elle permet "de commencer les recherches physiques cette année",

Director's Corner

Involving Spain in the ILC R&D programme

We had a nearly two-day meeting with the Spanish particle physics groups to explore collaborations for the ILC last month, immediately following the Funding Agencies for Large Colliders (FALC) [meeting](#) in Madrid. During the FALC meeting, Juan A. Fuster Verdú gave an overview of the



Juan Fuster, Chairman of the Spanish Particle Physics National Programme

particle physics programme in Spain, and we had more detailed discussions of the programme and possible collaborations the next two days. These meetings gave us a much better understanding of the capabilities and ambitions of the Spanish groups and gave them a better picture of the opportunities in ILC R&D and design work. We expect to continue these productive discussions, leading up to increased Spanish involvement in the ILC.

[Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

Image of the Week

Close-up view of a TPC cathode



This copper-clad aluminium cathode used in a Time Projection Chamber (TPC) is patterned with little holes and lines. When the pattern is illuminated with a laser light, the distribution of the emerged electrons – coming from the aluminised areas,

[Workshop](#)

SLAC
2-4 March 2009

[Technology and Instrumentation in Particle Physics \(TIPP09\)](#)

Epocal Tsukuba, Tsukuba, Japan
12-17 March 2009

[Joint ACFA Physics and Detector Workshop and GDE Meeting on International Linear Collider \(TILC09\)](#)

Tsukuba, Japan
17-21 April 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

a-t-il ajouté.
[Read more \(in French\)...](#)

From *malagaes.com*
9 February 2009

Reunión internacional de investigadores en Física Fundamental en el Pirineo Aragonés en la cita anual que viene celebrándose en nuestro país desde hace 37 años

En varias sesiones se examinará el estado actual de los proyectos de construcción de futuras grandes instalaciones (colisionadores lineales electrón-positrón, superfactorías de Bs, superfases de neutrinos, etc.).
[Read more \(in Spanish\)...](#)

From *Scientific American*
6 February 2009

LHC now targeted for "late 2009" start-up

According to CERN, some of the magnets in the LHC's 17-mile-long tunnel will not be ready for testing until September.
[Read more...](#)

From *Physics World*
5 February 2009

PAMELA paper dampens dark-matter claim

...the PAMELA team has published an analysis of different data — the anti-proton/proton ratio — which may give added weight to the pulsar explanation.
[Read more...](#)

From *Krakow Post*
5 February 2009

Troubled "Time Machine"

"Unfortunately, the Collider is a prototype, having no equivalent in the world, so we must learn everything about it directly on it."
[Read more...](#)

From *Boston Globe*
8 February 2009

A talk with Mario Livio : Is mathematics the language of the universe?

...is mathematics a human tool, or is reality, in some fundamental way, mathematics?
[Read more...](#)

From *RF Globalnet*
4 February 2009

Radio Telescope In Desert Dead Zone To Aid In Dark Energy Research

The proposed 500 MHz to 1000 MHz radio telescope will make a 3-D map of the universe using radio frequency waves, which will help astronomers understand the mysterious dark energy.

provides an instrument to observe irregularities in the electric and the magnetic fields embedding the TPC.
Photo: Volker Prah

Announcements

arXiv preprints

[0902.0281](#)

Correlation properties of the maps of the NVSS survey and WMAP ILC

[0902.0170](#)

Higgs ID at the LHC

[0902.0108](#)

How accurately is the property of the Little Higgs Dark Matter determined at the ILC?

[0902.0073](#)

Background Studies for the VTX Geometry Optimisation

[0901.4972](#)

Emission of Low-Energy Photons by Electrons at Electron-Positron and Electron-Ion Colliders with Dense Bunches

[0901.4903](#)

Resolution Studies on Silicon Strip Sensors with fine Pitch

[0901.4895](#)

Sensitivity to the Higgs Self-coupling Using the ZHH Channel

[0901.4894](#)

Flavour tag studies with the LCFIVertex package

[0901.4893](#)

Precision Measurements of SM Higgs Recoil Mass and Cross Section for \sqrt{s} of 230GeV and 250GeV at ILC

[0901.4890](#)

WIMP Searches at the ILC using a model-independent Approach

[0901.4874](#)

GEM Studies for LCTPC

[Read more...](#)

From *Interactions.org*

28 January 2009

**Protons are successfully
accelerated and transported to J-
PARC Hadron Experimental Hall**

Protons were accelerated up to 30 billion electron-volts (30 GeV), then successfully extracted to Hadron Experimental Hall in Nuclear and Particle Physics Facility and transported to the beam dump.

[Read more...](#)