

**ILC NewsLine — special issue on the LHC**



The Large Hadron Collider, the world's most powerful particle accelerator, started its physics programme with [first collisions](#) at 7 Tera-electronvolts last week. The future of the ILC is determined by these results, and even though it will take a few years for the Higgs or supersymmetric particles to emerge we are pleased to welcome you to a special LHC issue of *ILC NewsLine*. Read a Director's Corner on how the two machines are connected, a letter from Rolf Heuer about the discovery potential of the LHC in the next years, find out what an ILC operations web page could look like, check the latest LHC preprints or browse our collection of useful links... and celebrate this great era for particle physics.

**Feature Story**

**On the threshold of new territory**  
*Rolf Heuer on the physics potential of the LHC's first long run*



Waiting for collisions in the LHC...  
*Image: CERN*

With stable beams regularly circulating and colliding in the LHC, we have started the physics programme at 7 TeV. At a recent workshop in Italy, participants had the chance to take stock of what lies in store for the LHC's first physics run.

[Read more...](#)

-- Rolf Heuer

**BlogLine**

3 April - [Frank Simon](#)  
[Matter in the Universe and a masterpiece](#)

ILC NewsLine also recommends all other [Quantum Diaries](#) blogs and for more LHC blogs, go [here](#).

Two LHC experiments also have blogs from their control rooms: [ATLAS](#) and [CMS](#)

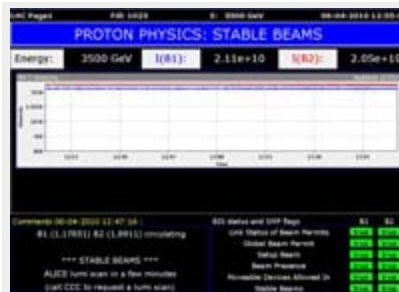
**Calendar**

**Upcoming meetings, conferences, workshops**

[TESLA Technology Collaboration \(TTC\) Meeting](#)  
 Fermilab, IL, USA  
 19-22 April 2010

**Around the World**

**ILC Page 1**  
*What would a central machine operations web page for the ILC look like?*



A screenshot of LHC Page 1 — the ILC version could look rather different.

On days when the LHC makes front page news, some web pages get more attention than they usually do. A page that is highly frequented by LHC operators, on display in all control rooms and a favourite link for physicists, but otherwise not all that well known, is [LHC Page 1](#) (aka OP Vistars). One quick look gives you all the important information on the status of the machine. *ILC NewsLine* wanted to find out: what would an ILC Page 1 look like?

[Read more...](#)

-- Barbara Warmbein

**In the News**

*Today's issue does not list the latest news clippings about the ILC and particle physics in general but brings you a collection of useful sites and links all around the LHC, the theme of today's issue.*

[CERN's user pages](#)

[LHC in the US](#)

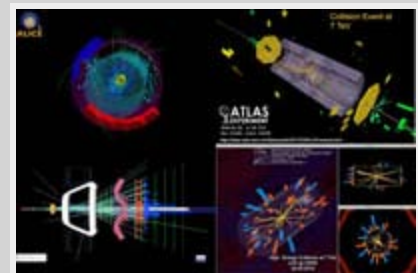
[LHC in France](#)

[LHC in Germany](#)

[LHC in the UK](#)

**Director's Corner**

**Celebrating first 7-TeV collisions at the LHC**



All four LHC experiments saw collisions on 30 March, when 3.5-TeV beams collided for the first time.

*Image: CERN*

This past week marked the beginning of a new era for particle physics with the much publicised achievement of establishing the first 7-TeV collisions at the CERN Large Hadron Collider (LHC). Both the impressive performance of the accelerator and the fact that the detectors are in an advanced state of readiness bode very well for the early physics research programme. We should soon begin to have a glimpse of Terascale physics from searches for the origin of mass to looking for evidence of a new symmetry in nature that could even explain the dark matter. Even more intriguing is the real possibility for totally unexpected surprises that are awaiting us. We are looking to LHC science to establish what kind of lepton collider will be needed to best exploit the energy frontier in the longer term.

[Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

**Image of the Week**

**Leaving seminar rooms behind**

[XIV International Conference On Calorimetry In High Energy Physics \(CALOR2010\)](#)

IHEP, Beijing, China  
10-14 May 2010

[The 1st International Particle Accelerator Conference \(IPAC'10\)](#)

Kyoto, Japan  
23-28 May 2010

[Polarized Positron for Linear Colliders Workshop \(Posipol 2010\)](#)

KEK, Japan  
31 May - 2 June 2010

### Upcoming school

[CERN Accelerator School \(CAS 2010\): Course on RF for Accelerators](#)

Ebeltoft, Denmark  
8-17 June 2010

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

[LHC in Italy](#)

[LHC in Spain](#)

[The CERN Bulletin](#) (CERN's NewsLine)

[LHC Page 1](#) (see today's story)

[The CERN Courier](#)

CERN on twitter in [English](#) and [French](#)

### LHC experiments

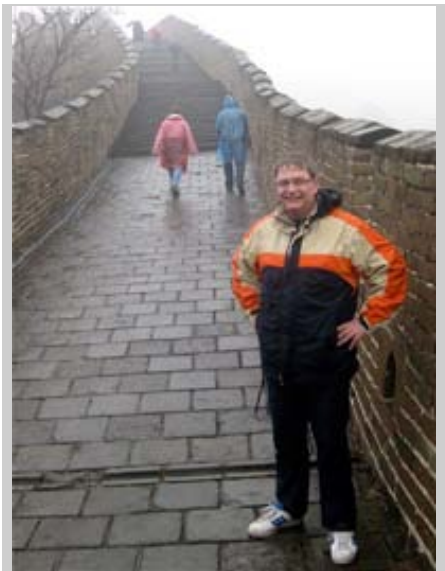
ALICE [homepage](#) and on [twitter](#)

ATLAS [homepage](#) and on [twitter](#)

CMS [homepage](#) and on [twitter](#)

LHCb [homepage](#) and on [twitter](#)

And two small experiments, [LHCf](#) and [TOTEM](#)



Two weeks ago, project manager Nick Walker said in his [guest Director's Corner](#) that after planning the collider of the future in windowless seminar rooms in Beijing, he had one opportunity to see the Great Wall of China. This photo proves that he did not miss it — and strongly calls for another meeting in Beijing under more favourable weather conditions...

### Announcements

#### arXiv preprints

*Enjoy reading the first LHC experiments papers ever produced from real data (collected since November 2009).*

[0911.5430](#)

*(from the ALICE Collaboration)*

First proton--proton collisions at the LHC as observed with the ALICE detector: measurement of the charged particle pseudorapidity density at  $\sqrt{s} = 900$  GeV

[1002.0621](#)

*(from the CMS Collaboration)*

Transverse momentum and pseudorapidity distributions of charged hadrons in pp collisions at  $\sqrt{s} = 0.9$  and 2.36 TeV

[1003.3124](#)

*(from the ATLAS Collaboration)*

Charged-particle multiplicities in pp interactions at  $\sqrt{s} = 900$  GeV measured with the ATLAS detector at the LHC