Feature Story

Five labs through 200 lenses

Public vote for winners of first global particle physics photowalk now open

The theme of the photowalk was particle physics – this is one of the thousands of photographs that were submitted. *Image: Hans-Peter Hildebrandt*

A woman kneels, almost devoutly, in front of a piece of beam pipe. One man is lying flat on his belly, squinting along the underside of a long step illuminated by blue warning lights. Another sits cross-legged opposite a barrel wheel of a particle detector and studies its forms. A new meditation class for particle physicists? No – just the world's first global particle physics photo walk. The people in the strange positions above were all armed with cameras, lenses, tripods and a good portion of curiosity when they got an exclusive look behind the scenes of five of the world's particle physics laboratories on 7 August. The local winners have now been announced and you can vote for your favourite picture here. Read more...

-- *Barbara Warmbein*

BlogLine

27 September - *Frank Simon*
Good Burgers, Bad Roads

Follow all Quantum Diaries

Calendar

Around the World

Working through the weekend at the ATF

KEK photowalk winning photo, taken by Yuki Hayashi. From left to right: Patrick Cornebise, Ronic Chiche and Didier Jehann

On 27 September, the Japan's local winners of the first Global Particle Photo Walk were announced. This Photowalk was held at five particle physics laboratories in the world on 7 August (see Feature Story this week). The winning photo taken by Yuki Hayashi features scientists working at the Accelerator Test Facility (ATF) at KEK. But they are not Japanese scientists. They are three of the nine French scientists and engineers who were visiting the ATF from the end of July to install and test their four-mirror optical cavity.
Read more...

-- *Rika Takahashi*

In the News

From *EuCARD Newsletter*
29 September 2010
Beaming smiles from CLIC test success
August 2010, while most are enjoying the sunshine, CLIC/CTF3 researchers enjoyed successful first results of two-beam acceleration.
Read more...

From *EuCARD Newsletter*
29 September 2010
Hamburg in a FLASH
"It is absolutely impressive how fast and promising FLASH is operating after such a substantial upgrade," congratulated Reinhard Brinkmann, director of the DESY accelerator

Director's Corner

The ILC in a mountainous region – A report on Japanese efforts to develop possible sites

Today's issue features a Director's Corner from Marc Ross, Project Manager for the Global Design Effort.

Review committee members at the Kannagawa hydroelectric power plant during the CFS review meeting held in June. *Image : Nobuko Kobayashi/ courtesy of Tokyo Electric Power Company*

Roughly six years ago the International Committee for Future Accelerators accepted the recommendation to adopt 'cold', superconducting radiofrequency (RF) technology for the linear collider's main linac. The recommendation came shortly after an extensive review of the designs of the ILC's forerunner projects, TESLA, NLC and JLC. The main linac technology planned for the ILC, now under development in each region, is quite similar to that of the TESLA design.
Read more...

-- *Marc Ross*

Director's Corner Archive

Image of the Week

Undulator at full field

Upcoming meetings, conferences, workshops

19th International Spin Physics Symposium (SPIN 2010)
Juelich, Germany
27 September - 2 October 2010

EUDET Annual Meeting 2010
DESY, Hamburg, Germany
29 September - 1 October 2010

High precision measurements of luminosity at future linear colliders and polarization of lepton beams
Tel Aviv University, Tel Aviv, Israel
3-5 October 2010

eCloud 2010
Cornell University, NY, USA
8-12 October 2010

International Workshop on Linear Colliders 2010 (IWLC2010) ECFA-CLIC-ILC joint meeting
CERN and CIGC, Switzerland
18-22 October 2010

2010 IEEE Nuclear Science Symposium and Medical Imaging Conference
Knoxville, Tennessee, USA
30 October - 6 November 2010

Upcoming schools

Fifth International Accelerator School for Linear Colliders
Villars-sur-Ollon, Switzerland
25 October - 5 November 2010

GDE Meetings calendar

View complete ILC calendar

section. Record wavelengths lower than 4.45 nanometres are expected soon.
Read more...

From *CERN Courier*
28 September 2010
Searching beyond the frontiers in Cape Town
"Yosuke Takubo of Sendai pointed out that one of the goals of the ILC would be to measure the parameters of heavy gauge-bosons, "little Higgs" partners of the Standard Model gauge-bosons, one of which is a dark-matter candidate."
Read more...

From *CERN Courier*
28 September 2010
CLIC/CTF3 goes truly global
The Australian Collaboration for Accelerator Science (ACAS) – a new Australian institute for accelerator science launched in July – has become the latest participant in the CLIC/CTF3 collaboration.
Read more...

From *Gazeta*
24 September 2010
ILC-3: линейный коллайдер в Дубне
Международная проектная группа, статус и размещение коллайдера.
Read more... (in Russian)

The prototype helical undulator module built by a team of scientists and engineers from Rutherford Appleton and Daresbury Laboratories in the UK has been operated at full field for the first time. The four-metre-long cryostat contains two helical undulators, each 1.75 metres long, that have a period of 11.5 millimetres and a peak field on axis of 0.86 Tesla. The two undulators were magnetically tested in a vertical test stand some time ago, and both far exceeded the design specification by achieving peak fields of 1.13 Tesla. Now the undulators have been incorporated into their specially designed cryostat and been powered up to their operating field for a number of hours without any quenching. The team will now try operating the module at even higher fields and also deliberately introduce heating into the electron vacuum aperture to simulate beam heating effects. *Image: STFC*

Announcements

arXiv preprints
1009.5405
A Search for the Fourth SM Family: Tevatron still has a Chance

1009.4670
Higgs boson pair production in new physics models at hadron, lepton, and photon colliders