

Around the World

From DESY inForm: Light at the end of the magnet?

ALPS searching for very light particles



Inside this magnet the light may shine through the wall: the ALPS setup in the HERA magnet test hall.

Admittedly, this sounds quite absurd at first sight – absurd, but also quite fascinating. Imagine a world existing parallel to our world that we practically do not perceive at all. Some scientific theories suggest that such a world exists, but nobody has ever seen it. With unprecedented accuracy, the ALPS (Any Light Particle Search) experiment is now searching for particles from such a world. In case it does exist, this would immediately support new theory models like string theory and also explain unresolved phenomena like dark matter and dark energy. The problem is that the suspected particles of this hidden world are much lighter than everything we know and they hardly interact with our matter. They are called WISPs (weakly interacting sub-eV particles). [Read more... \(pdf\)](#)

BlogLine

21 July - Ingrid Gregor
[The endless summer](#)

17 July - Frank Simon
[CALICE at the beach](#)

[Follow all Quantum Diaries](#)

Calendar

Upcoming meetings, conferences,

Around the World

Observe, explore and re-create the universe

"Uchu (宇宙)" is the Japanese word that can be translated as either "universe" or "space." The Advanced Accelerator Association Promoting Science and Technology (AAA) in Japan has been on tour with their symposium series on "uchu" – observing by telescope, exploring by spacecraft and re-creating by accelerator – and the second event was just held in Hiroshima on 4 July.

[Read more...](#)

-- Rika Takahashi



Tohru Takahashi answering the questions from symposium attendees.

In the News

From *DESY*
21 July 2009
Schavan, Gundelach and Biel lay cornerstone at DESY
Federal Government, Hamburg and Schleswig-Holstein sign European XFEL participation agreement.
[Read more...](#)

From *Warrington Worldwide*
20 July 2009
2,200 children "inspired by science"
More than 2,200 children from across the North West have been inspired to a greater interest in science as a result of working with the STFC Daresbury Laboratory, near Warrington in the past academic year.
[Read more...](#)

From *CERN*
17 July 2009
CERN and EU Commission agree on closer scientific partnership
Geneva, 17 July 2009. Today in

Director's Corner

Accelerator Design and Integration: Considerations for distributing high-level RF power for a single tunnel configuration



The ILC Reference Design uses a double-tunnel configuration with the klystron high-level RF system in an accessible service tunnel

The main thrust of our ILC accelerator design work during the Technical Design Phase (TDP-1 and TDP-2) is to refine the design presented in the *Reference Design Report* (RDR) towards a more coherent concept, and one that is better optimised for performance to cost to risk. Our approach is to study a set of carefully chosen potential changes to the RDR baseline aimed at producing a new baseline next year as the final milestone in TDP-1. The new baseline will then become the basis of the technical design (TPD-2) that will be completed and documented by the end of 2012. One of the most complex and difficult changes under consideration is changing from the RDR's double-tunnel to a single-tunnel configuration. A key problem to solve for a single-tunnel configuration is how to deliver the high-level radiofrequency power (HLRF) to the cryomodules. There are two very different solutions being proposed, and the choice between them may be site dependent.

[Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

Image of the Week

Sun, sand and — particle tracks

workshops

[Lepton Photon 09](#)

Hamburg, Germany
17-22 August 2009

[14th International Conference on RF Superconductivity \(SRF2009\)](#)

Berlin, Germany
20-25 September 2009

[2009 Linear Collider Workshop of the Americas \(ALCPG09\)](#)

The University of New Mexico,
Albuquerque, New Mexico, USA
29 September - 3 October 2009

Upcoming schools

[International School of Physics "Enrico Fermi" \(SIF\)](#)

[Radiation and particle detectors](#)
Varenna, Villa Monastero, Italy
20-25 July

[Linear Collider Physics School 2009](#)

Ambleside, England
17-23 August 2009

[Fourth International Accelerator School for Linear Colliders](#)

Beijing, China
7-18 September 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

Brussels, CERN and the European Commission are to sign a Memorandum of Understanding (MoU), which aims to enhance the long-standing partnership between the two organizations.

[Read more...](#)

From *physicsworld*
16 July 2009

Could Fermi detect dark matter within a year?

The Fermi Gamma-ray Space Telescope could detect the telltale signs of dark-matter annihilation in as little as a year, if calculations by UK and US astrophysicists prove correct.

[Read more...](#)

From *Economist*
16 July 2009

The search for dark matter

Ethereal yet weighty: Two new ways to detect the elusive stuff of the universe

[Read more...](#)



What happens when a bunch of physicists gather on a beach? They don't build sandcastles – they build event displays. Not just any kind of event display, of course – ones with a definite ILC team. That's what happened last week when members of the CALICE collaboration met in Hamburg – [read the whole story](#) (and an explanation of the tracks) in Quantum Diaries.



Announcements

arXiv preprints

[0907.3577](#)

Particle Flow Calorimetry and the PandoraPFA Algorithm

[0907.3455](#)

On the physical Relevance of the Study of $\gamma^* \gamma \rightarrow p^0 p^0$ at small t and large Q^2

[0907.2782](#)

Experimental Review of Photon Structure Function Data

[0907.2662](#)

$W_L W_L$ Scattering in Higgsless Models: Identifying Better Effective Theories

[0907.2589](#)

Constraining SUSY models with Fittino using measurements before, with and beyond the LHC