

Around the World

From Slac Today: A Flight Simulator for the World's Smallest Beam



The Accelerator Test Facility 2 in Japan uses a 50-meter series of magnets to focus its electron beam. (Photo by N. Toge, KEK)

Commissioning has begun at the Japan-based Accelerator Test Facility 2, a major technology test bed for future accelerators, including the proposed [International Linear Collider](#), or ILC. During the two-year commissioning process, SLAC National Accelerator Laboratory physicists are shuttling back and forth to KEK, the high-energy accelerator lab in Tsukuba, to join an [international team of scientists](#) working around the clock to get the accelerator's final focus system up and running. When fully commissioned, this system will squeeze the facility's electron beam down to a slender ribbon just 35 nanometers thick—the narrowest beam of particles ever achieved. [Read more...](#)

-- Lauren Schenkman, SLAC Today

Calendar

Upcoming meetings, conferences, workshops

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

Tsukuba, Japan
17-21 April 2009

[Particle Accelerator Conference 2009 \(PAC09\)](#)

Vancouver, Canada
4-8 May 2009

[11th European Symposium on Semiconductor Detectors](#)

Wildbad Kreuth Conference Center,

Feature Story

ILC bloggers join Quantum Diaries

"This is going to be a new, hopefully interesting and enjoyable experience," says Frank Simon, in his opening post.



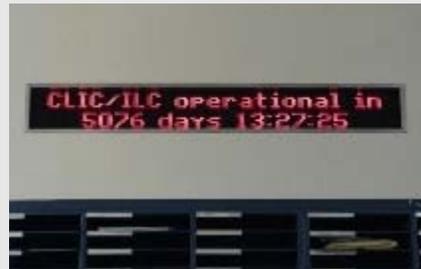
Tony Hartin (left) and Frank Simon (right), ILC Bloggers for 'Quantum Diaries'. Credit: interactions.org

One is Australian, the other German. Both are physicist willing to share their everyday lives as particle physicists working on the ILC project. Together with eight other diarists, they joined the new [Quantum Diaries](#) blog launched on 31 March 2009. [Read more...](#)

-- Perrine Royole-Degieux

Image of the Week

What do they know that we don't?



Scientists at the Dutch national lab Nikhef seem to know more about the future of particle physics than they let on... this countdown was spotted at a coffee break during a recent meeting there. It's no April fool's joke, but it isn't quite accurate either... "We used to count down to the LHC start-up," explains Nikhef communication officer Gabby Zegers. "Now that that has happened we needed a new date to count down to, and we randomly set the ILC starting date to 2 February 2023" Who knows, maybe they do

Director's Corner

Neutrinos in Venice



The optical telescope gave us a new way to look at the sky

Last month I had the pleasure of participating in the "XIII International Workshop on Neutrino Telescopes" at the "Istituto Veneto di Scienze, Lettere ed Arti" in Venice Italy. This workshop, inspired and run by Professor Milla Baldo Ceolin (Padova University), has become an institution in neutrino physics. The meeting is based on review talks followed by extensive discussions and the programme broadly covers topics related to neutrino physics, astrophysics and cosmology, singling out the most interesting current results and problems. This year's meeting was especially interesting to me in how it demonstrated the relationships between accelerator and non-accelerator physics and how much closer astrophysics is becoming to particle physics. [Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

Announcements

Fourth International Accelerator School for Linear Colliders

The Fourth International Accelerator School for Linear Colliders (2009 LC School) will be held from 7-18 September 2009 at Hotel Jixian, Huairou, near Beijing, China under the auspices of the GDE, ILCSC and ICFA Beam Dynamics Panel. The Institute of High Energy Physics (IHEP) will be the host institution. The school will take a maximum of 70 students from around the world. Students will receive financial aid including travel (airfare, lodging, meals and local transportation, full or

Bavaria, Germany
7-11 June 2009

[ILC-CLIC LET Beam Dynamics
Workshop at CERN](#)
CERN, Switzerland
23-25 June 2009

Upcoming schools

[Spring School on Strings, Cosmology
and Particles \(SSSCP2009\)](#)
Belgrade, Serbia
31 March - 4 April 2009

[Terascale Monte Carlo school 2009](#)
DESY Hamburg, Germany
20-24 April 2009

[School on Calorimetry at the
International Linear Collider](#)
China Center of Advanced Science
and Technology, Beijing, China
22-26 April 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

know more than the ILC
management...

In the News

From *Fermilab Today's April Fool's
issue*

1 April 2009

Student discovers flaw in Large Hadron Collider

Yurkewicz, a student at l'Espace de
vie enfantine (EVE) in Meyrin,
Switzerland, said he had been going
over the analysis of the calculations
as his class put on their jackets for
outdoor activity period.

Particles attempt lab takeover

One possibility under investigation is
that a group of neutrinos passed by
security cameras undetected.

[Read more...](#)

From *resonaances.blogspot.com*

1 April 2009

No Higgs particle after all?

Yesterday at CERN Peter Higgs gave a
seminar whose message was really
shocking. No more no less, Higgs
demonstrated that the famous particle
that carries his name cannot exist!

[Read more...](#)

From *Fermilab Today*

31 March 2009

New group supports SCRF technology industrialization

A new organization will foster
partnerships between industry and
government-funded organizations
working on advanced accelerator
programs.

[Read more...](#)

From *Les Echos*

30 March 2009

Un masque du boson de Higgs tombe

L'accélérateur de particules américain
du Fermilab vient d'affiner le portrait-
robot du boson de Higgs

[Read more...](#) (in French)

From *Examiner.com*

27 March 2009

Will dark energy cause the end of the universe?

They have come up with three
possible dark energy candidates. Each
produces a different value equation
(...), which in turn dictates how the
universe will end according to which
is the actual value of dark energy.

[Read more...](#)

partial). Only online application will
be accepted. The deadline is June 1,
2009.

Detailed information can be found
online:

www.linearcollider.org/school/2009/

arXiv preprints

[0903.4991](#)

Silicon Tracking DAQ

[0903.4978](#)

Single Higgs-boson production
through gamma-gamma scattering
within the general 2HDM

[0903.4777](#)

Probing the Z' sector of the minimal B
- L model at future Linear Colliders in
the $e^+ e^- \rightarrow \mu^+ \mu^-$ process

[0903.4673](#)

A new 130nm F.E readout chip for
microstrip detectors

[0903.4606](#)

$e^+ e^- \rightarrow t$ anti- t H including decays:
on the size of background
contributions

[0903.4361](#)

Overview of the SiLC R&D Activities

[0903.4135](#)

MC@NLO for the hadronic decay of
Higgs bosons in associated production
with vector bosons