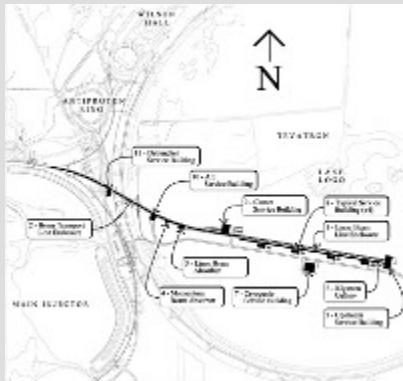


Around the World

From symmetry breaking: Project X collaboration forms, experiment moves forward



A potential location for Project X at Fermilab.

Project X, a Fermilab-hosted international accelerator facility, could break ground as soon as 2013.

Accelerator experts from around the world gathered at Fermilab last month to work toward establishing a formal collaboration and further plans for Fermilab's proposed proton accelerator.

At the meeting held Nov. 21-22, more than 133 attendees established a multi-institutional collaboration for the R&D phase of the project.

"Project X allows us to use the facility we have here and puts us at the leading-edge of world particle physics," said Fermilab Director Pier Oddone.

[Read more...](#)

-- Rhianna Wisniewski

Calendar

Upcoming meetings, conferences, workshops

[Accelerator Reliability Workshop](#)
TRIUMF, Vancouver, Canada
26-30 January 2009

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

Feature Story

From four to six quarks in a month and a half

An interview with Toshihide Maskawa, Nobel laureate of Physics



Maskawa smiling at the press conference.

Toshihide Maskawa is one of the most popular public figures in Japan at the moment. He has charmed many Japanese people with his humour and pure passion for the science that he showed at the press conference after he won the 2008 Nobel prize in physics, together with Yoichiro Nambu, professor emeritus at Chicago University, and Makoto Kobayashi, honorary professor emeritus at KEK. "We are very much surprised by all these requests for interviews with him, including the TV variety shows," said the public relations officer at Kyoto Sangyo University. Of course, Maskawa has been having hectic days since last October. "I was able to take the first three days of the new year as holidays. Otherwise, somebody is always taking me around. But, I realise that this is my duty," he said. From where he stands now, promoting the fun of science is his job. "I am happy to have this position, because not too many people have this opportunity."

[Read more...](#)

-- Rika Takahashi

In the News

From *Fermilab Today*
13 January 2009
Profile: Camille Ginsburg prepares Fermilab for the future
Camille Ginsburg's job is to look to the future – and make sure Fermilab has the right tools to reach it.
[Read more...](#)

Director's Corner

Plug compatibility: rationale and technical aspects addressed

Plug compatible conditions at Cavity package (example)

Item	Can be flexible	Plug-compatibility
Cavity shape	yes	
Cavity length		To be fixed
Beam-pipe Flange		To be fixed
Cavity support int.		To be fixed
Tuner	yes	
Tuner position		To be fixed
Coupler	Partly	Tunable
Coupler position		To be fixed
RF window	yes	
RF window face		To be fixed

Example of plug compatibility for the cavity package

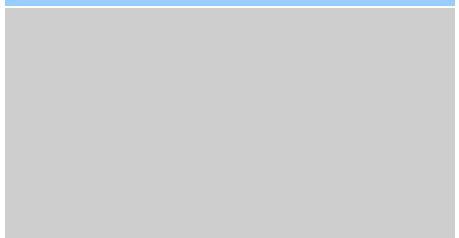
An interesting and challenging concept that has emerged in developing the ILC's technical design is that of plug compatibility for the superconducting radio frequency (SCRf) accelerating systems. Plug compatibility is not a new term invented for ILC – a common definition might be that the term describes manufactured hardware that is designed to be interchangeable with another vendor's product, even though internal details may differ. This concept, as applied to our ILC design, has been introduced, discussed and intensively debated over the past year. A recently released note from our project managers, simply entitled "[Plug Compatibility](#)", provides a good summary of the present thinking of our project managers. In this note, they give their rationale and discuss technical and engineering aspects of SCRf plug compatibility from their point of view. It also addresses various concerns that have arisen.

[Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

Image of the Week



[ILD Workshop](#)

Ewha Womans University, Seoul,
Korea
16-18 February 2009

[Silicon Detector Design Study Workshop](#)

SLAC
2-4 March 2009

Upcoming school

[The US Particle Accelerator School](#)

Nashville, Tennessee, USA
12-23 January 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

From *CERN Bulletin*
12 January 2009

A global view

After the usual six-month overlap with the previous management, Rolf-Dieter Heuer took office on 1st January as new Director-General. His mandate will cover the early years of operation of the LHC as well as its first scientific results. As he starts his new position, Rolf Heuer gives a long interview to the Bulletin.

[Read more...](#)

From *The Observer*
11 January 2009

Belfast art set to collide with quantum physics

A play about the 'god particle' will open as scientists try to find the real thing.

[Read more...](#)

From *Daily Yomuri Online*
11 January 2009

ILC accelerated by Nobel Prize

(in Japanese)

[Read more...](#)

From *Zakei.co.jp*
10 January 2009

KEK started beam test aiming to realize ILC project

(in Japanese)

[Read more...](#)

From *nature*
7 January 2009

European boost for particle therapy

Treatment centres poised to use carbon-ion beams to tackle cancer.

[Read more...](#)



Two units of high-power couplers to use with L-band superconducting cavities, built by LAL in France. These couplers, with "TTF5 design", have been delivered to KEK as part of France-Japan Particle Physics Laboratory (FJPPL) programme, and will be high-power tested at [STF](#) at KEK. Photo: Nobu Toge

Announcements

FY09 linear collider detector R&D in US universities

A more specific set of guidelines for linear collider detector R&D in the US has been developed after discussions with the agencies. The first step in the process will be the submission of individual project descriptions by 23 January. Please refer to the [web site](#) for details. The descriptions will not go to the agencies directly, but will be used by the LOI groups in preparing their proposals, which will be submitted to both agencies by 18 February. Each LOI group proposal will be led by two PIs, one from the universities and one from the labs.

arXiv preprints

[0901.1231](#)

Alignment of Silicon tracking systems R&D on Semitransparent Microstrip Sensors

[0901.1081](#)

Precision Measurements of Little Higgs Parameters at the International Linear Collider

[0901.0927](#)

Higgs to Gamma Gamma beyond the Standard Model

EUROTeV Reports

[2008-018](#)

Laser Wire Simulation in the ILC
Beam Delivery System

[2008-019](#)

Beam Parameter Determination using
Beamstrahlung Photons and
Incoherent Pairs