

Around the World

From Fermilab: Collaboration between Fermilab, Indian institutions sets stage for future accelerators



Fermilab Director Pier Oddone presents a signed copy of a picture of Fermilab to DAE Secretary Kakodkar.

INDORE, India (February 10, 2009) - The Department of Energy's Fermi National Accelerator Laboratory in Batavia, Ill., today announced the signing of a new Memorandum of Understanding with four Indian institutions. The MOU establishes collaboration in the areas of superconducting acceleration science and technology and in research and development of superconducting materials.

[Read more...](#)

Calendar

Upcoming meetings, conferences, workshops

[TH Institute: From the LHC to a Future Collider](#)

CERN

9-27 February 2009

[Silicon Detector Design Study Workshop](#)

SLAC

2-4 March 2009

[Technology and Instrumentation in Particle Physics \(TIPP09\)](#)

Epocal Tsukuba, Tsukuba, Japan

12-17 March 2009

[Joint ACFA Physics and Detector Workshop and GDE Meeting on International Linear Collider \(TILCO9\)](#)

Tsukuba, Japan

17-21 April 2009

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

Feature Story

Past successes in superconducting RF are a good omen for the ILC

Hasan Padamsee and Charles Reece highlight successes in the evolution of superconducting RF technology and look to ILC and future developments.



Six modules installed in FLASH at DESY have 48 nine-cell cavities operating between 20 and 25 MV/m. The nine-cell TESLA cavities inside the module were fabricated from RRR=300 niobium and prepared by advanced methods of electropolishing and baking.

One of the high-value R&D programmes for the ILC is to reliably reach gradients of 35 Megavolts per metre (MV/m) in one-metre long (9-cell, 1.3-Gigahertz) niobium cavities, the heart of the main linac. More than a dozen such cavities have demonstrated gradients between 35 and 40 MV/m at DESY, and more recently at Jlab. The challenge is to hit such performance levels nearly every time, and with nearly every cavity! This means that we need to conduct some good science to understand the basic nature of the gradient limits, and clever engineering to invent methods to overcome these.

[Read more...](#)

-- *Hasan Padamsee, Cornell University, Charles E Reece, Thomas Jefferson National Accelerator Facility*

In the News

From *Spiegel online*
23 February 2009

Neues Prinzip der Supraleitung entdeckt

Stromleitung ohne Widerstand - und das bei Zimmertemperatur? Das ist das ultimative Ziel bei der Forschung

Director's Corner

Trains, planes and automobiles – the life of a regional director

Today's issue features a Director's Corner from Brian Foster, GDE European Regional Director.



Group photo at CIEMAT in Spain

Although 2009 is not yet two months old, I seem to have already fitted in enough trips to fill a year – but such is the life of an ILC Director. My first trip of the year was to Paris. On 6 January I travelled to the headquarters of the *Institut National de Physique Nucléaire et de Physique des Particules* – more concisely known as CNRS/IN2P3 – to meet with the Director, Michel Spiro, the Deputy Director for particle physics, Etienne Augé and Guy Wormser, Director of LAL, Orsay. Our discussions were wide-ranging, centering on the prospects for the ILC in France as well as developments on the wider stage. In France itself, the advent of a new, energetic and relatively young President brings with it a tendency to review all organs of government policy; the delivery and administration of scientific research is no exception. Even during a time when far-reaching reforms are being considered, the normal policy and decision-making functions of IN2P3 continue. We discussed many of these over an excellent lunch in a delightful little restaurant near CNRS headquarters near the Bois du Boulogne. The strong involvement of France in the European X-Ray Laser Project XFEL project is giving rise to many synergies with ILC work, which are being exploited within the strong French involvement inside the European Union Framework 7 Project, [ILC-HiGrade](#).

[Read more...](#)

-- *Brian Foster*

Vancouver, Canada
4-8 May 2009

Upcoming school

[Spring School on Strings, Cosmology and Particles \(SSSCP2009\)](#)

Belgrade, Serbia
31 March - 4 April 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

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[Read more...](#)

From *CERN Courier*
23 February 2009

CERN sets course for new horizons

...For the past 10 years he has steered DESY's participation in projects such as the LHC and a future international linear collider.

[Read more...](#)

From *Cern Courier*
23 February 2009

The light-pulse horizon

Rapid advances in high-intensity laser technology are closing in on the technological breakthrough of a compact particle accelerator, and with it a new means to study the structure of the vacuum.

[Read more...](#)

From *Cern Bulletin*
23 February 2009

The latest from the LHC

All replacement magnets required for Sectors 3-4, 1-2 and 6-7 have now been cryostated.

[Read more...](#)

From *le Journal Innovation*
23 February 2009

Espace : Le télescope Fermi révèle une explosion géante

(..) ce sursaut gamma [est] le plus violent de tous les objets célestes jamais observés. Ces fulgurantes bouffées de rayons gamma, qui peuvent durer d'une fraction de seconde à quelques minutes, sont généralement suivies d'une émission rémanente plus faible sur plusieurs jours.

[Read more...](#)

From *Science Magazine*
20 February 2009

LHC Delays Give Tevatron a Shot at Higgs Boson

(subscription required)

With Europe's Large Hadron Collider now out of commission until late September, the older Tevatron collider at Fermilab may be gaining the edge in the race to spot the Higgs boson.

[Read more...](#)

[Director's Corner Archive](#)

Announcements

TILC09 — have you registered?

The deadline for early registration to the [TILC09 meeting](#) is Saturday 28 February. Have you registered yet? [Do it here](#) (and now).

arXiv preprints

[0902.4164](#)

The flavor-changing bottom and anti-strange quark production in the littlest Higgs model with T parity at the ILC

[0902.3399](#)

R&D for Very Forward Calorimeters at the ILC Detector

[902.3377](#)

Simulation Study of $\gamma\gamma \rightarrow hh$ in a Photon Collider

[902.3229](#)

Analysis of the Decay $e^+e^- \rightarrow \text{invisible} + H(\rightarrow \mu\mu)$ at a Collision Energy of 500 GeV

[902.3221](#)

Compton Cherenkov Detector Development for ILC Polarimetry

[902.3155](#)

An extended Higgs sector for neutrino mass, dark matter and baryon asymmetry

[902.3102](#)

Realistic Simulation of the MAPS Response

[0902.3042](#)

GARLIC - Gamma Reconstructon for the LInear Collider

[0902.3035](#)

Analysis of ZH recoil mass

[0902.3017](#)

Status of the ILC Main Linac BPM R&D