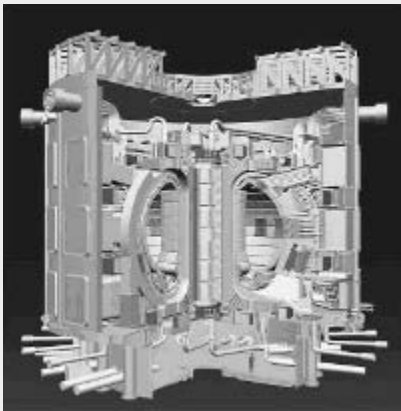


Feature Story

Large-scale international research facilities

A paper for the National Science and Technology Summit



ITER – an investment in national priorities towards energy independence

The nature of modern scientific research has been changing due to the increased reliance on large-scale scientific facilities for forefront research. The programmes at our DOE National Laboratories have become focused more and more around large facilities and the programme of Major Research Equipment and Facilities Construction (MREFC) has emerged as a very important part of the NSF research portfolio. The NSF programme began with physics and astronomy initiatives, but has expanded into other disciplines.

[Read more...](#)

-- Barry Barish

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

[ILD Workshop](#)
Ewha Womans University, Seoul, Korea

Around the World

Harmonics of acceleration

Fermilab assembles third-harmonic cryomodule string



The assembled three-cavity string for the third-harmonic cryomodule.

The majority of NewsLine readers are scientists – most of you of the experimental kind. So be honest: how often during the last few weeks, when listening to carols, plucking the strings of your old guitar that you only get out during the holidays or cringing at a dissonant brass band, did you think about the physics and the maths of music? Go to the ILCT-MDB Horizontal Test Stand at Fermilab now and you can experience a perfect third harmonic: that of a string of cavities being tested and assembled into a cryomodule.

[Read more...](#)

-- Barbara Warmbein

In the News

From *New Scientist*
5 January 2009

Desktop atom smashers could replace LHC

...Some day, particle physicists will want to upgrade the LHC to an even bigger, better and more expensive model. In fact, they are already working on a successor known as the International Linear Collider.

[Read more...](#)

From *New Scientist*
31 December 2008

Commentary: Reasons to be jolly about 2008

TIS the season to be jolly, though after a year in which the much-anticipated Large Hadron Collider at CERN has been delayed, you might think particle physicists don't have

Director's Corner

A New Year



Putting one stone on top of the other: the ILC community is looking forward to the new year. (This picture was taken on new year's day at the Baltic coast).

Greetings and best wishes for the New Year! We all greet each New Year with hopes, dreams and anticipation of things to come. As we all know, this was just not the case for the ILC community as we entered 2008 a year ago. In fact, at that time, we were reeling from funding news we had received from the US and UK that put the Global Design Effort and ILC into a time of crisis. It isn't an exaggeration to say it wasn't even clear at that time if the ILC effort would survive, but indeed we did survive, and to the surprise of many, we even accomplished a lot. Our 2008 accomplishments were nicely reviewed by Nick Walker in the final [Director's Corner](#) of last year.

[Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

Announcements

Silicon Detector Design Study Workshop at SLAC, 2-4 March

The Silicon Detector Design Study will hold a Workshop at SLAC from 2 to 4 March to finalise the SiD LoI, review and discuss the R&D required for a viable SiD proposal, and plan SiD's future. Registration and additional information is given [here](#).

Registration for TILC09 is open

The ILC community will meet in Tsukuba, Japan, this year. Registration is open – make sure you follow every step of the registration process! More information on the

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](#)

much to be jolly about. Two very different developments, however, have made 2008 particularly exciting for them.

[Read more...](#)

From *American Institute of Physics*
22 December 2008

Top ten physics stories of the year

Former presidential science advisor Vannevar Bush referred to science as an endless frontier of new discoveries. So what were the big physics findings for 2008?

[Read more...](#)

From *Nature*
17 December 2008

Newsmaker of the year: The machine maker

...The next machine the community wants to build will be an electron machine, like LEP, but linear rather than a loop. If its 30-kilometre rifle barrel is ever built, it is unlikely to be in the suburbs and farms around CERN.

[Read more...](#)

meeting and a link to the website are [here](#).

arXiv preprints

[0812.3571](#)

Particle Identification in 4th

[0812.3297](#)

The POWHEG method applied to top pair production and decays at the ILC

EUROTeV Reports

[2008-002](#)

Simulation Study of Laser-wires as a Post-linac Diagnostic for CLIC and ILC

[2008-011](#)

First Data from the Linear Collider Alignment and Survey Project (LiCAS)

[2008-014](#)

16.3 Studies of the Transient Response of a Klystron