

Feature Story

Hot out of the oven, Saclay team improves cavity baking process



At Saclay, cavities are baked with an infrared heating source.

Before accelerating electrons and positrons, cavities need to undergo a number of treatments, such as chemical and electropolishing, the last one being baking. The standard baking procedure heats the cavity at 120°C for two days with an ultra high vacuum (UHV) requirement. These very restrictive conditions are unfortunately not appropriate for the treatment of 16,000 cavities that the ILC requires. At Saclay, France, the DAPNIA laboratory has been working on RF cavities for about 15 years, within the TESLA collaboration. Their cavity baking facility recently reached a milestone, showing that the baking time could be reduced to three hours and the UHV conditions may not be necessary, which would be more compatible for mass production of cavities.

Read more...

-- Perrine Royole-Degieux

Calendar

Feature Story

China on the walkway towards the ILC

The Temple of Heaven, a masterpiece of architecture and landscape design in Beijing symbolises the relationship

between earth and heaven - the human society and the universe - which stands at the heart of Chinese cosmology. It was the central image on the poster for the 9th ACFA ILC Physics



& Detector Workshop and ILC GDE Meeting in February 2007 at IHEP in Beijing, where the ILC reference design and preliminary cost were officially announced. Although the walkway towards the ILC is as long as that in the Temple of Heaven, China is now taking steady steps and making more contributions to the realisation of the ILC. This interest manifests itself in the Chinese scientists' unanimous support for China's participation in the ILC, which has been demonstrated during the Fragrant Mountain Meeting, held at the end of 2006, the expanding collaboration with KEK and other labs worldwide, the ILC GDE Meeting held in Beijing this February, and the various R&D efforts in progress at IHEP and other institutes. Read more...

-- J.Y. Zhai, IHEP

In the News

From *Cern Courier* April 2007 ICFA releases ILC design report Read more...

From *Physicsworld* April 2007 **A triangle that matters** <u>Read more...</u>

From *Le Journal du CNRS* April 2007 Horizon 2020: les ambitions du CNRS Read more (in French)...

Director's Corner

GDE to sponsor Second International School for Linear Colliders



Poster for the 2nd International School for Linear Colliders

I am pleased to announce that the second accelerator school dedicated to linear colliders will be held from 1-10 October 2007 at Ettore Majorana Center, Erice (Sicily), Italy under the sponsorship of the ILC GDE, ILCSC and ICFA Beam Dynamics Panel. The demand for success of our first accelerator school held last year in Japan has motivated us to follow up with a second school in Europe this year, and we plan a third one in the U.S. next year. The primary focus of the school will be on the International Linear Collider (ILC), but it will also cover multi-TeV colliders, such as the Compact Linear Collider (CLIC). The school is directed toward graduate students from universities around the world, postdoctoral fellows, junior researchers, and physicists interested in changing their career from experimental physics to accelerator physics. Detailed information on the school can be found online. Read more...

-- Barry Barish

Director's Corner Archive

Announcements

Upcoming meetings, conferences, workshops

SiD Fermilab Workshop

Fermilab, Batavia, Illinois 9-11 April 2007

<u>The LHC Early Phase for the ILC</u> Fermilab, Batavia, Illinois 12-14 April 2007

TESLA Technology Collaboration

Meeting Fermilab, Batavia, Illinois 23-26 April 2007

MAC Meeting Fermilab 26-27 April 2007

DOE/NSF ILC Americas Regional

Team Review Fermilab 30 April - 2 May

ILC Software and Tools Workshop LAL - Orsay 2-4 May 2007

CALICE Collaboration Meeting

Kobe University, Kobe, Japan 10-12 May 2007

Annual WILGA Conference

Warsaw University of Technology Resort, Poland 21-27 May 2007

POSIPOL 2007 Workshop

LAL-Orsay, France 23-25 May 2007

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Hamburg, Germany 30 May - 4 June 2007

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e Collaboration-wide Meetings

GDE Meetings Calendar

© International Linear Collider

From Symmetry Magazine Mar/Apr 2007 Focus on the Future Read more...

From Symmetry Magazine April 2007 Toward an International Linear Collider Read more...

From Symmetry Magazine Mar/Apr 2007 The ILC's reference design Read more...

From Interactions.org 2 April 2007 A New Dawn in Scientific Research Read more...

From Science Magazine 29 March 2007 String Theory, With No Holds Barred Read more...

LCWS 07 Early Registration Deadline

The LCWS2007/ILC workshop and GDE meeting will take place at DESY in Hamburg, Germany, from 30 May to 3 June 2007. The deadline for early registration is 15 April 2007. more information

ILC-Related Preprints

physics/0703243 28 Mar 2007 Micromegas TPC studies at high magnetic fields using the charge dispersion signal

hep-th/0703239

27 Mar 2007 Noncommutative QED corrections to process $e^+ e^- \rightarrow \mu^+ \mu^- \gamma$ at linear collider energies

EUROTEV Reports 2006

EUROTeV-Report-2006-025 Fast Injection Kickers for DAΦNE and ILC Damping Rings

EUROTeV-Report-2006-079

Selection of the optimum Magnet Design for the International Linear Collider Positron Source Helical Undulator