

## Around The World

### China Engages in Large-Grain Niobium Single Cells

In the International Linear Collider (ILC), superconducting cavities made of niobium will be used. Niobium is a superconductor - a material that loses its electrical resistance when cooled down to almost absolute zero. Clean and extremely smooth cavity surfaces are essential for achieving a high accelerating gradient. Manufacturing cavities from large-grain or single-crystal niobium may cut down expenses by eliminating some of the treatments that are necessary for fine grain cavities. Therefore the quality of the niobium becomes one of the most important points of cavity manufacturing. CBMM from Brazil, W. C.Heraeus from Germany, and Ningxia from China are the world leaders in niobium treatment.



Xu Qingjin stayed at KEK from 5 June to 2 September to build large-grain niobium single-cells and learn about surface treatments.

[Read more...](#)

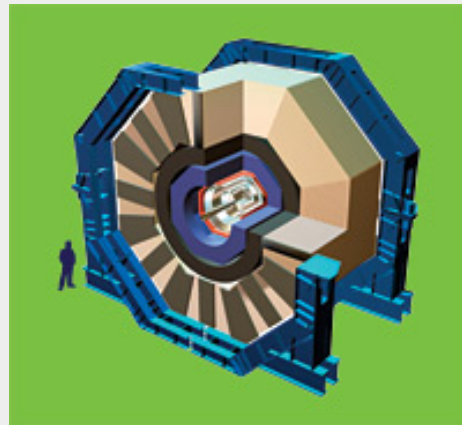
-- Nobuko Kobayashi

## Calendar

## Feature Story

### ILC Detectors in the Making: Silicon Detector (SiD)

In July, ILC NewsLine provided an overview of the [Global Large Detector \(GLD\) concept](#). This week's issue takes a closer look at the Silicon Detector (SiD) concept. ILC NewsLine will continue its series about the four ILC detector concepts in the weeks to come. Next: Large Detector Concept (LDC).



Artist's rendition of SiD. (Courtesy of SLAC)

Standing at 12 metres tall, 12 metres wide and 12 metres deep, the [Silicon Detector \(SiD\)](#) is a compact International Linear Collider detector concept. As the only detector concept to use silicon technology exclusively for particle tracking and calorimetry, naming this detector concept SiD seemed very natural for the international collaboration of approximately 150 scientists. Silicon technology is an expensive commodity, however, making it important to keep the detector as small and cost effective as possible. [Read more...](#)

-- Elizabeth Clements

## In the News

## Director's Corner

### ILC-Americas Regional Team Looks to the Future

Today's issue features a Director's Corner from Gerry Dugan, GDE Americas Regional Director.



Paul Grannis (left) of the DOE and Gerry Dugan during last week's Linear Collider Forum of America meeting at Fermilab.

Over the past year, in addition to contributing to the ILC Reference Design Report, the ILC-Americas regional team (ART) has focused on programme planning for the next few years. We anticipate that this time period will roughly correspond to the period when an engineering design of the ILC will be carried out, and when the key R&D questions, which require answers prior to project approval, will be confronted and resolved.

[Read more...](#)

-- Gerry Dugan

## Director's Corner Archive

## In Memoriam

## Upcoming meetings, conferences, workshops

### [Single Crystal Niobium Technology Workshop](#) (pdf)

Araxá mine in Brazil  
30 October - 1 November 2006  
[Final Program](#) (pdf)  
[Request Information](#) (email)

### [ILC – ECFA Valencia Workshop and GDE Meeting](#)

Valencia, Spain  
6-10 November 2006

### [CARE06 Annual Meeting](#)

Frascati National Laboratories, Italy  
15-17 November 2006

EUROTeV meeting  
8-9 January 2007  
Daresbury Laboratory, UK

MAC meeting  
10-12 January 2007  
Daresbury Laboratory, UK

### [USPAS](#)

Texas A&M University  
15-26 January 2007

### [The 9th ACFA ILC Physics & Detector Workshop & ILC GDE Meeting](#)

IHEP, Beijing  
4-7 February 2007

### [Annual WILGA Conference](#)

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

### [GDE Meetings Calendar](#)

From *Chicago Sun Times*  
24 October 2006

#### **Fermilab gets charge out of new particles**

Nature's zoo of subatomic particles just got more crowded. Physicists at west suburban Fermilab on Monday announced the discovery of two exotic particles that haven't been around much since the first few moments after the universe began with a Big Bang.

[Read more...](#)

From *The New York Times*  
20 October 2006

#### **The Universe on a String**

...Nevertheless, mathematical rigor and elegance are not sufficient to demonstrate a theory's relevance. To be judged a correct description of the universe, a theory must make predictions that are confirmed by experiment...

[Read more...](#)

(Registration required)

From *Physorg.com*  
October 2006

#### **New experiment to investigate cosmic connection to clouds**

A novel experiment, known as CLOUD (Cosmics Leaving Outdoor Droplets), begins taking its first data today with a prototype detector in a particle beam at CERN, the world's largest laboratory for particle physics...

[Read more...](#)

From *Nature*  
18 October 2006

#### **Japan's new premier chases innovation**

Prime minister breaks with tradition to appoint scientist as special adviser.

[Read more...](#)

(Registration required)

From *CERN*  
2006

#### **LHC - The Guide**

CERN has just published a fact book about the LHC. The first version is [available in PDF](#).

## LBNL's Mike Ronan Remembered for Hard Work, Versatility and Enthusiasm

Senior Scientist Michael Ronan, who spearheaded a Time Projection Chamber design for the International Linear Collider and served as the Americas representative for the Global Large Detector collaboration, died on 17 October 2006. He was 57.



Michael Ronan

"On behalf of the ILC community, I want to express our profound sadness and sense of loss over the death of Mike Ronan," said GDE Director Barry Barish. "Mike was a colleague and a brilliant experimentalist, who had made a deep commitment to the ILC. Perhaps someday we will be recording collisions in a time projection chamber, just as Mike had envisioned."

The UC Berkeley Physics Department held a special ceremony for Ronan on Tuesday, 24 October. A mass was held on 23 October at St. Joseph's Catholic Church, Pinole.

[Read more](#) about Ronan's life in an obituary published Tuesday by Today at Berkeley Lab.

-- Elizabeth Clements

## Announcements

### **ILC-Related Preprints**

[hep-ph/0610297](#)

23 Oct 2006

Study of the singly charged Higgs in the economic at 3-3-1 model at e+ e- colliders

[physics/0610145](#)

19 Oct 2006

The Impact of BeamCal Performance at Different ILC Beam Parameters and Crossing Angles on  $\tilde{\tau}$  searches

[physics/0610059](#)

10 Oct 2006

Triple-GEM performance in He-based

