

Feature Story

Enjoying cool science



Panel discussion at the KEK symposium. from left: Nakajima, Kimoto, Murayama, Miyama and Suzuki

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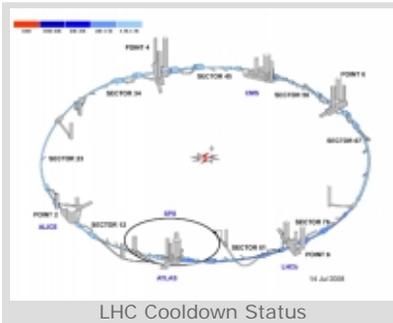
[Read more...](#)

-- Rika Takahashi

Calendar

Around the World

From CERN bulletin: Start-up fever
The world of particle physics (and beyond) is buzzing with excitement as the start-up of our next big adventure, the Large Hadron Collider, is drawing near. NewsLine cannot escape the buzz, so we will report on LHC progress from time to time. If you are involved in both ILC and LHC: [send us](#) your thoughts and experiences!



Unusually for the holiday season, the car parks are full, finding a table at lunch is a formidable challenge, and people can (more than ever) be found in their offices late into the night. All the evidence points to one thing... the most ambitious particle collider in world is just a few weeks away from its first proton beam!
[Read more...](#)

In the News

From *Nature*
 22 July 2008

Physicists brace themselves for LHC 'data avalanche'

As physicists prepare to inject the first stream of particles into the Large Hadron Collider (LHC) in August, they are are bracing themselves for a 'data avalanche' from the multi-billion-dollar particle accelerator.
[Read more...](#)

From *Hamburger Abendblatt*
 21 July 2008

Neuer Desy-Chef? Er verhandelt noch

Hamburgs größte Forschungseinrichtung, das Deutsche Elektronensynchrotron in Bahrenfeld - kurz Desy - bekommt einen neuen Chef.
[Read more...](#)

Director's Corner

ILCSC approves new MOU at the Dubna meeting



Enzo Iarocci, ILCSC chair, and myself in animated conversation in Dubna.

The International Linear Collider Steering Committee (ILCSC) met on 4 June 2008 at the Joint Institute for Nuclear Research (JINR) in Dubna, Russia, in parallel with the first day of our Global Design Effort meeting. We began the day with a joint plenary session that featured talks by Sakue Yamada and myself, respectively describing the status and plans for the detectors and accelerator. An important outcome of the [ILCSC meeting](#) was the approval of a new Memorandum of Understanding (MOU) for the ILCSC that gives the mandate for the GDE Technical Design Phase for accelerator R&D and the Letter-of-Intent (LOI) phase for the detectors. In addition, several ILCSC members stayed in Dubna for the next morning to participate in a very lively special session of our GDE meeting on siting strategies.
[Read more...](#)

-- Barry Barish

Director's Corner Archive

Image of the Week

Spot the dots



As the calorimeter prototypes go into their second round in the [Fermilab testbeam](#) DESY's remote control

Upcoming meetings, conferences, workshops

[34th International Conference on High Energy Physics \(ICHEP'08\)](#)
Philadelphia, USA
29 July - 5 August 2008

[ILD meeting](#)
Cambridge, UK
11-13 September 2008

[Conference on the Design/Optimization of the Silicon Detector at the International Linear Collider](#)
University of Colorado at Boulder, Colorado, USA
17-19 September 2008

Upcoming school

[Third International Accelerator School for Linear Colliders \(2008 LC School\)](#)
Oak Brook, Illinois, USA
19-29 October 2008



= Collaboration-wide Meetings

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

From *BBC*
18 July 2008

Cern lab goes 'colder than space'

A vast physics experiment built in a tunnel below the French-Swiss border is fast becoming one of the coolest places in the Universe.

[Read more...](#)

From *Nature*
17 July 2008

Editorial: An uneasy peace

Britain's 'big science' funding agency is now in a position to regain much-needed credibility.

[Read more...](#)

room is not only fully operational but also a walk-in model of the ILC logo, with the logo's characteristic dots running the lengths of the walls and windows. Shifts started last week, with four collaborators working on site at Fermilab and two in the remote control room every day. For safety and temperature reasons, data taking starts at 8 p.m. Chicago time and ends at 10 a.m., with a shift change at 3 a.m. At DESY, the shift starts at the much more civilised time of 10 a.m.

Announcements

ILD meeting in Cambridge, UK

The organisers of the ILC meeting in Cambridge would like to encourage anybody who has not registered yet to do so quickly. By the end of this week they can no longer guarantee availability of accommodation in Downing College. [More info](#)

EUROTeV Reports

[2008-028](#)

A Prototype Target Wheel for the ILC Positron Source

[2008-029](#)

Studies on the Role of a Photon Collimator for the ILC Positron Source

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"KEK needs to improve the visibility of Japanese R&D activities on the electron-positron collider," said Masa Yamauchi, KEK's spokesperson for the Belle collaboration and member of the Funding Agencies for Large Colliders (FALC), who was one of two main organisers of the symposium. "The main motive to have this symposium is to promote KEK's road map, especially our strategy on electron-positron colliders, with upgrading the KEKB accelerator and realising the ILC project," he explained. According to him, KEK has not been very proactive in outreach activities towards the public at large. Because of the nature of its establishment, KEK's outreach activities are mainly aimed at students in science and engineering majors. "I don't think that is enough," said Mitsuaki Nozaki, the Regional Director for Asia of the ILC Global Design Effort, and the other main organiser. "It is not only to fulfil our responsibility as scientists to communicate with tax payers, we also would like to share the fun of science with many people," he said.



Panel discussion at the KEK symposium. From left: Nakajima, Kimoto, Murayama, Miyama and Suzuki

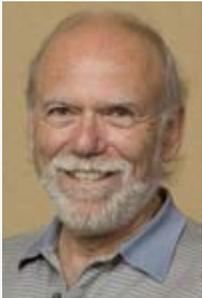
Murayama explained how particle physics relates to the fundamental questions like "how was the Universe born?" His easy-to-understand talk was very popular among the audience. "Now I want to study physics again," commented one member of the audience. Miyama fascinated the audience talking about astrophysics with beautiful and interesting images and movies. Suzuki then introduced KEK's road map and what accelerators can do to solve the mysteries of the Universe. Theory, experiment, and observation - it was a rare opportunity to listen to three different viewpoints on one same question. "Listening to three talks, I thought that real science is much more fiction-like than the science fiction novel," said Kimoto in the panel discussion, and many seemed to feel the same way. "Each talk was too short and I wanted to hear more," many people in the audience expressed their demand to have another opportunity like this.

"I am a bit surprised to see so many positive reactions and big demand for the symposium of this kind," said Nozaki. KEK is planning to have another symposium later this year.

-- Rika Takahashi

Director's Corner

24 July 2008



Barry Barish

ILCSC approves new MOU at the Dubna meeting

The International Linear Collider Steering Committee (ILCSC) met on 4 June 2008 at the Joint Institute for Nuclear Research (JINR) in Dubna, Russia, in parallel with the first day of our Global Design Effort meeting. We began the day with a joint plenary session that featured talks by Sakue Yamada and myself, respectively describing the status and plans for the detectors and accelerator. An important outcome of the [ILCSC meeting](#) was the approval of a new Memorandum of Understanding (MOU) for the ILCSC that gives the mandate for the GDE Technical Design Phase for accelerator R&D and the Letter-of-Intent (LOI) phase for the detectors. In addition, several ILCSC members stayed in Dubna for the next morning to participate in a very lively special session of our GDE meeting on siting strategies.

The Global Design Effort is "legitimate" thanks to an ILCSC MOU that is an agreement to collaborate on the ILC design effort and formulates and defines our work. The ILCSC is a subcommittee of the International Committee for Future Accelerators (ICFA), and it assumes the scientific oversight of our work for ICFA. The [original MOU](#) for the GDE was to carry out the work culminating in last year's *Reference Design Report*. A [new MOU](#) covering the present phase of our work, which we call the Technical Design Phase, has been evolving in draft form for almost one year. At the Dubna meeting, a final version of this MOU was agreed to and is now in the process of being signed by the international collaborating institutions.

The single issue that caused the most consternation on the committee involved the question of intellectual property rights. This can be a very subtle issue, especially during the R&D phase, where innovation is a fundamental part in the process. For the laboratories that are funded with public funds, it is natural to share the innovations globally, so the entire project benefits from the developments in one laboratory or one region. But much of our work involves using industry, not just to "build to print," but rather to work together with us to develop the most cost effective and highest performing technical components. Sometimes (and we want to encourage it) this involves developments by industry that are not a result of the directly contracted work, and their rights need to be protected in such cases. The final spirit of the agreement in the MOU is that in those cases the contracted party has the right to royalties for their proprietary inventions. To make this work, the contracted work must be very well defined, so there is as little confusion as possible whether any innovations occur as part of the statement of work or are independently developed.

The second big topic of discussion for ILCSC involved how to approach the siting of the ILC. How and when will site proposals be solicited? What information should the GDE study in order to be in a position to give the best possible input to potential bidders? What role will the host play? Jonathan Dorfan, former Director of SLAC, chaired a stimulating special session during the GDE meeting that addressed these and some other questions. As a result of the discussions at Dubna, the ILCSC has decided that they will take the lead in developing a strategy toward siting, and the GDE will help by doing specific studies. Some examples of specific questions we will study include shallow sites, single versus double tunnels, as well as more generally developing a set of requirements and desired features to provide to potential hosts.

Lastly, at Dubna we and the ILCSC identified the need to take a new look at various models for governance of a future ILC project, and the GDE will begin such an effort. We want to be prepared to discuss and work with potential hosts and collaborating governments and agencies on possible ways to structure this international project. We plan to survey other models of international collaboration on large projects in physics and astronomy, previous studies for high energy physics and the ILC, as well as develop our own models. We expect to



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Jonathan Dorfan leading discussions on siting during the Dubna GDE meeting.

carry out this work over the same time period as the Technical Design Phase (2008-2012). The study will be led by Brian Foster, who serves on the GDE Executive Committee, and he and I will be reporting more about it here as the work gets underway and progresses.

-- *Barry Barish*