ILC NewsLine

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## Around the World

### Appreciation of Harmony

*Jong-Seok Oh, Pohang Accelerator Laboratory*

Harmony is an important value in societies like Korea's that are rooted in Confucianism. Among the 20 Korean scientists attending the Snowmass Workshop, is accelerator physicist Jong-Seok Oh. Although far from Korea, Oh feels a growing harmony high in the mountains of Colorado.

"I feel that people are really getting organized in this workshop," Oh said in a recent interview, "and I feel a sense of harmony among the ILC working groups. I think this is the biggest achievement since the last workshop at KEK. Clearly the ILC project is moving into a new phase and people are concentrating on their specific work."

In Korea, Oh works on projects including the Free Electron Laser at Pohang Accelerator Laboratory. He started working on the linear collider with Shintake and Matsumoto of KEK in 1996, developing C-band cavities and RF sources. He works with 11 other colleagues at Pohang on the ILC Asian main linac activities and will also work at SPring-8, a light source facility near Kobe in Japan for one year.

At the Snowmass Workshop, Oh participates in Working Group 2 - Linac Design; and Working Group 5 - Superconducting Cavities and

## Feature Story

*Watch the video interviews of the three GDE regional directors.*

### GDE Organizes to Address Questions of Universe

In a key milestone for the Global Design Effort for the proposed International Linear Collider, the 49 members of the ILC GDE met face to face for the first time during the Snowmass ILC Workshop in Colorado August 14-27. The Snowmass workshop marked the first meeting for the members of the GDE, drawn from some

25 laboratories, universities and institutes around the world.

*Gerald Dugan, GDE Regional Director, ILC Americas*

"Meeting together in the same room was an important step in getting organized and focusing our efforts in the same direction," said GDE Director Barry Barish.

As the two-week Snowmass meeting drew to a close, the three GDE regional directors, from Asia, Europe and the Americas, gave their personal viewpoints on progress, as well as on regional particularities and priorities. All agreed that the ILC would provide an unparalleled opportunity for physicists to study the most compelling questions about the universe.

"Because the Linear Collider would solve some of the big issues of physics,

this creates big enthusiasm among people," said Fumihiko Takasaki, regional GDE director for Asia.

## Director's Corner

One of the liveliest and most interesting working groups at Snowmass has been the so-called cost/engineering global group. The workshop has many working groups meeting in parallel, so participants must make choices between going to physics groups discussing subjects like the detection of extra dimensions, detector groups discussing how to measure energy flow, accelerator groups discussing techniques to achieve higher gradient superconducting RF cavities, or possibly a group working on ILC cost/engineering. So, you might wonder why anyone would choose to attend the cost/engineering meetings.

It is probably fair to say that for many of us, our first choice would not be cost/engineering, unless we recognized that this might well be the single most critical effort needed for the ILC design. In order for the GDE to produce a viable design for the ILC, it will need to meet enormous challenges in the areas of engineering design and costing. We need to produce a viable concept for the ILC that can meet the performance goals, while being both affordable and buildable!

To take up this challenge, we are appointing three highly respected senior cost engineers within the GDE. That group is beginning the process of preparing for the design and costing effort that will start once the ILC baseline is determined and documented this fall. Deciding on everything from engineering standards to design and costing tools seems like a rather dry set of subjects, but the challenges in how to approach these tasks such that we can optimize

the design and costs are subtle and difficult -- especially how to do them internationally.

Couplers.

"Our lab has a great interest in superconducting technology," Oh said. "Korean scientists understand that international collaboration is very important. We now have the technology to contribute to a superconducting project, and we want to contribute to the ILC. The information from this workshop will be directly conveyed to the discussions that are going on between the Korean government and scientists."
*--Youhei Morita and Elizabeth Clements*

## Calendar

**Upcoming meetings, conferences, workshops**

ALCPG Workshop
Snowmass, USA, 14-27 August 2005

2nd ILC Workshop
Snowmass, USA, 14-27 August 2005

Nanobeams 2005
Kyoto, Japan, 17-21 October 2005

ECFA ILC Workshop
Vienna, Austria, 14-17 November 2005

TESLA Collaboration Meeting and GDE Meeting Frascati, Italy, 5-10 December 2005

2006 LCWS 2006
Bangalore, India, 9-15 March 2006

## Image of the Week

**Snowmass Workshop Attendees**
Snowmass Workshop attendees before the second workshop dinner on Wednesday night. Approximately, 800 people attended the workshop.

*Brian Foster, GDE Regional Director, ILC Europe*

"Challenges attract smart people."

Following the world particle physics community's decision, announced a year ago in Beijing, to adopt superconducting technology for the proposed new collider, "about two-thirds of the community had to switch from one technology to the other, which is not an easy thing," said Brian Foster, regional GDE director for Europe. "Now this process is essentially completed and our community is much more focused. Our big objective at Snowmass is to converge to a consensus [on the machine's baseline design]. But it will take time. We will need it by the end of the year."

Asia's Takasaki emphasized that meetings like the Snowmass conference provide the opportunity for people to recognize how the sum of their individual jobs

*Fumihiko Takasaki, GDE Regional Director, ILC Asia*

can add up to a much larger global achievement.

Nevertheless, regional particularities remain, as seen in the varying practices of funding agencies in different countries, or different outreach processes. Thanks to such international meetings, "you really appreciate what the other people are saying," said Cornell physicist Gerald Dugan, regional GDE director for the Americas, "and that's the way one overcomes the emotional biases we all bring, and we come actually in the end to the right answer, from an objective point of view."
*--Perrine Royole-Degieux*

## Announcements

*Wilhelm Bialowons*

The GDE engineering cost leaders are Wilhelm Bialowons of DESY, Tetsuo Shidara of KEK, and on an acting basis, Bob Kephart of Fermilab. I might note that Kephart is filling in until we appoint a GDE cost engineer for the Americas and that this is his third job! He also serves as the director of the Technical Division and has recently been appointed leader of ILC effort at Fermilab. Bialowons brings very important long term DESY experience and, in particular, TESLA experience to the GDE. Shidara was involved broadly in accelerator technical systems and costing for the KEK B factory. This group is attacking a very broad set of issues that vary from setting engineering standards and deciding tools for the ILC design to figuring out how to approach doing a parametric design and costing for the machine.
Read more
*--Barry Barish*

Director's Corner Archive

## In the News

**When Beams Collide**
From *Snowmass Village Sun*, 24 August 2005

Particle physicists from Asia, Europe and North America are in Snowmass Village for two workshops, which they hope will have revolutionary results. Through Saturday, nearly 650 physicists, engineers and computer scientists are convening for the 2005 International Linear Collider (ILC) Physics and Detectors Workshop and the Second ILC Accelerator Workshop.

Belgian experimental physicist Paul Lebrun of Fermi National Accelerator Laboratory in Batavia, Ill. is confident that the current workshop will result in the building of a next-generation linear collider with the goal of finding the Holy Grail of physics, a proposed missing atomic particle or new quark, that they call the Higgs particle.

Visit the Live from Snowmass Web site

**Wanted: ILC Web Site Manager**
The GDE is looking for a Web site manager for the new ILC Web site. This person will act as the primary Web interface to the GDE Director and the global ILC community to respond to the collaboration's communication needs. Know somebody who may be interested? Pass the job opening along to them.

**Suggestions Welcome**
The GDE Communicators welcome your suggestions and ideas for ILC NewsLine. We look forward to hearing from you!

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