

### Feature Story

#### Bridging Theory, Experiment, LHC and ILC

A new team of young researchers based at DESY will start building more bridges between theory and experiment and between LHC and ILC in May (next year). Philip Bechtle, currently a post-doc at the BaBar experiment at SLAC, has just received approval and a budget for his "Young Investigators Group" from the Helmholtz Association, the largest scientific organisation in Germany spanning 15 research centres, including DESY. Bechtle, one post doc and four PhD students will delve deep into the subject "Terascale Physics: From Data Taking at LHC to Understanding at ILC."



Philip Bechtle (30) graduated at DESY in 2004 and is currently working at the BaBar experiment at SLAC in California.

[Read more...](#)

-- Barbara Warmbein

### Calendar

#### Upcoming meetings, conferences, workshops

[European LC WS 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

### Feature Story

#### Argonne-Fermilab BCP System Coming Together



Standing behind a "valve yard," (L-R) Dan Assell, Todd Thode, Tim Hamerla, Allan Rowe, Luciano Elementi are members of the Fermilab group who designed the BCP system for the new facility at Argonne.

To make the superconducting cavities for the ILC sparkle, they must undergo a series of surface treatments to make them as clean and pure as possible – a necessity for achieving high accelerating gradients. Electropolishing and Buffered Chemical Polishing, the two types of chemical treatments required for the cavities, are not simple tasks. They involve tricky chemicals and a detailed recipe for producing the best cavities possible.

[Read more...](#)

-- Elizabeth Clements

### In the News

From *Daily Herald*

27 December 2006

#### Fermilab project a boon or boondoggle?

Fermilab wants to house the world's next big high-energy physics lab. The estimated \$2.5 billion construction plan and \$500 million operating budget for the International Linear Collider could point the way to discovering how the universe works. Or not.

[Read more...](#)

### Director's Corner

#### Cost Estimating the ILC Reference Design



The external reviewers who participated in the first GDE cost review were (left to right) A. Yamamoto, J. Marx, V. Soergel, T. Elioff and M. Yoshioka.

One of the most important goals of the ILC Reference Design is to understand enough about costs to provide a reliable indication of the project's scale and as importantly, to provide information and tools that will help guide the engineering design phase. It is a formidable challenge to prepare reliable cost estimating for a conceptual design that lacks detailed engineering designs, an agreement for the division of responsibilities and an industrialisation plan. Nevertheless, because it is so important to have good cost information as early as possible, we have spent enormous effort over the past year developing costing methodology, gathering costing data, vetting cost estimates and making tradeoffs to optimise cost to performance. Over the coming months, our design and cost estimates will undergo a series of reviews and revisions. The first of these reviews occurred at SLAC, just before Christmas, where we conducted what was basically an "internal review" of the complete ILC costing. In order to make this first review as realistic and valuable as possible, we invited a group of experienced external reviewers to participate. The external review team spent several days of their valuable time scrutinising our cost estimates and then giving us some very [valuable outside reactions and comments](#).

### [ILC Detector Test Beam Workshop](#)

Fermilab, Batavia, Illinois  
17-19 January 2007



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

IHEP, Beijing  
4-7 February 2007

### [TESLA Technology Collaboration Meeting](#)

Fermilab, Batavia, Illinois  
23-26 April 2007

### [Annual WILGA Conference](#)

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



### [LCWS 2007](#)

Hamburg, Germany  
30 May - 4 June 2007

### [IEEE EUROCON 2007](#)

Warsaw, Poland  
9-12 Sept 2007



### [= Collaboration-wide Meetings](#)

### [GDE Meetings Calendar](#)

From *Interactions.org*  
20 December 2006

### **LRPC: Community releases report highlighting Canada's ascendancy in subatomic physics**

At a brief ceremony held in Ottawa Monday, Dr. Suzanne Fortier, President of the Natural Sciences and Engineering Research Council (NSERC), officially received a report on the future of subatomic physics in Canada from the Subatomic Physics Long-Range Planning Committee (LRPC) Chair Professor Kenneth Ragan of McGill University.

[Read more...](#)

From *SpaceRef.com*  
30 November 2006

### **Dark matter hides, physicists seek**

Scientists don't know what dark matter is, but they know it's all over the universe. Everything humans observe in the heavens-galaxies, stars, planets and the rest-makes up only 4 percent of the universe, scientists say.

[Read more...](#)

[Read more...](#)

-- Barry Barish

### [Director's Corner Archive](#)

### [Image of the Week](#)



A view of an ICHIRO cavity installed inside the 5K shield. (Courtesy of N. Toge)

### [Announcements](#)

#### **Happy New Year!**

Start the new year off right and share your story ideas with your ILC communicators. Want to promote your graduate student's research? Or maybe your university has some interesting R&D work happening this year? Send your story ideas to [communicators@linearcollider.org](mailto:communicators@linearcollider.org).

#### **ILC Brochure**

The new ILC brochure is now available. [Order your print copy](#) or download an [online version](#).

#### **ILC Job Listings**

Looking for a new job? Check out the latest [ILC job listings](#). Know of an opening in your department, but don't see it listed? Send your job posting to [webmaster@ilcgde.org](mailto:webmaster@ilcgde.org).