

Feature Story

Making Waves for Positrons



Members of the HeLiCal collaboration with the undulator ready for testing.

The ILC's positrons might be wondering where their second damping ring has gone and whether to get damped in the middle or at the end of the machine. Where they come from, however, is pretty clear, and teams in the UK and the US are making sure that their moment of creating is both well controlled and well understood. A 4th –generation undulator prototype has just been tested at Rutherford Appleton lab in the UK, and tests are looking very good.

[Read more...](#)

-- Barbara Warmbein

Calendar

Upcoming meetings, conferences, workshops

[EUNET Annual Meeting 2006](#)

MPI Munich
18-20 October 2006

Mini-Workshop on Design Challenges of Small Angle IR
LAL and Dapnia, France
[19 October 2006](#)
[20 October 2006](#)

[Single Crystal Niobium Technology Workshop \(pdf\)](#)
Araxá mine in Brazil

Feature Story

My Favourite Year

Carleton University student recalls his year as a member of an ILC TPC Micromegas French group.

At only 23 years old, Dan Burke, an undergraduate student from Carleton University, Canada, had already experienced the scientific excitement and the various activities of research in particle physics. Last year he stayed in a French Laboratory at Dapnia, Saclay and participated in various measurements, test beams and physics analyses and contributed to two scientific publications.

Burke spent a year as a member of the TPC Saclay Team, directed by Paul Colas. This group's major activity is R&D for the Micromegas (MICRO-MESH Gaseous detector) Time Projection Chamber (TPC), within the LC-TPC (Time Projection Chamber) international collaboration (see [NewsLine 22 June 2006](#)). While crossing a gas-filled cylinder TPC detector, charged particles ionise the gas. In Micromegas chambers, the produced electrons drift and are amplified between fine metallic micromesh structures and anode pads readout.

[Read more...](#)

[Read Dan Burke's blog](#)

-- Perrine Royole-Degieux



Dan Burke

Image of the Week

Director's Corner

Road to the ILC Reference Design



The GDE Schedule to complete the Draft Reference Design Report and Preliminary Costing.

The next big goal for the Global Design Effort is to produce an ILC Reference Design Report (RDR) that will include Preliminary Costing. We are systematically working toward this goal, and have now progressed far enough to set a realistic schedule. In recent columns, I highlighted some of the evolution of the baseline resulting from either technical advances from our R&D programme or from cost to performance optimisation. Several more studies are underway, and we expect to evaluate these in the coming weeks, especially at the upcoming Valencia GDE meeting in November. Following that meeting, we will make some final decisions for the RDR and begin the process of concluding this phase of the design effort. Our plan is to release the draft Reference Design Report and Preliminary Costing on the time scale of the GDE Meeting in Beijing in February 2007.

[Read more...](#)

-- Barry Barish

Director's Corner Archive

Announcements

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](#)



Linear Collider Forum of America members inspect a horizontal test cryostat at a Fermilab ILC test area. [Read more](#) about the LCFOA meeting, which took place at Argonne and Fermilab on 17-18 October.

In the News

From *Bild der Wissenschaft*
November 2006

Superlative Physics

The November issue of the German science magazine is all about the big questions of physics and the big machines needed to answer them. (In German)

[Read more...](#)

From *Physics World*
October 2006

How the US Sees the LHC

"Particle physicists in the US are excited about their involvement in the Large Hadron Collider, but Nigel Lockyer says they must ensure their future after 2010 once all the major US high-energy-physics accelerator programmes have ended..."

[Read more...](#)

ILC-Related Preprints

[hep-ph/0610173](#)

16 Oct 2006

Resolving the A_{FB}^b puzzle in an extra dimensional model with an extended gauge structure

[hep-ph/0610134](#)

11 Oct 2006

MSSM flat direction inflation: slow roll, stability, fine tuning and reheating

[hep-ph/0610118](#)

11 Oct 2006

Unconventional Neutrino Mass Generation, Neutrinoless Double Beta Decays, and Collider Phenomenology

[hep-ph/0610104](#)

9 Oct 2006

Z' Phenomenology and the LHC

[ILC-Asia-Note 2006-04](#)

12 Oct 2006

"Simulation of DFS (Dispersion Free Steering) using SLEPT", K.Kubo (KEK)

[ILC-Asia-Note 2006-05](#)

12 Oct 2006

"Rough Estimation of Effects of Fast-Changing Field in Long Transport of RTML", K.Kubo (KEK)

[ILC-Asia-Note 2006-06](#)

18 Oct 2006

"Simulation of Low Emittance Transport in Long Straight Line of ILC RTML", K.Kubo (KEK)