

Feature Story

From Cornell Chronicle: Cornell electron storage ring is test case for International Linear Collider



Mark Palmer, research associate at CESR, explains the goals of CEsrTA.

Scientists working on the proposed International Linear Collider (ILC) know exactly what they want it to do -- collide tightly focused beams of subatomic particles with unprecedented energy, recreating conditions during the big bang and unlocking the mysteries of the universe's origins.

Exactly how to do that is another story.

Still in early stages and several years away from being built, the ILC is garnering key design insights from Cornell scientists, who are creating a prototype of a major ILC component called a damping ring. The two-year project, which involves reconfiguring Cornell's existing electron storage ring (CESR) into a damping ring, is called CESR Test Accelerator (CesrTA).

[Read more...](#)

-- Anne Ju

Calendar

Upcoming meetings, conferences, workshops

[14th International Conference on RF Superconductivity \(SRF2009\)](#)

Berlin, Germany
20-25 September 2009

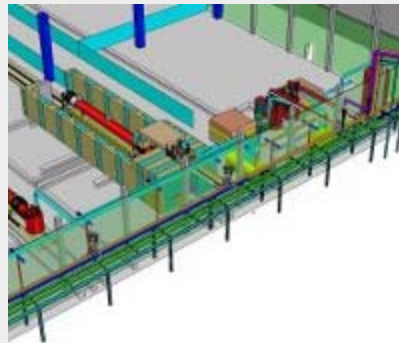
[2009 Linear Collider Workshop of the Americas \(ALCPG09\)](#)

The University of New Mexico,
Albuquerque, New Mexico, USA
29 September - 3 October 2009

Around the World

From football field to field strengths

Construction starts for XFEL accelerator module test facility



In the accelerator module test facility that is being built at DESY for the European XFEL, three modules can be tested side by side.

It takes vision to be able to image the transformation of one thing into another. Take a football field, for example. What are your associations – running, competition, goals, fun? And now imagine you want to build a new accelerator. What would you use the field for? The European XFEL team at DESY did not have to reflect for very long: acceleration, competition, goals? An accelerator module test facility of course! It's only a small step to the next vision: an accelerator module test facility for the ILC...

[Read more...](#)

-- Barbara Warmbein

In the News

From *Physicsworld.com*
1 September 2009

Of gluons, atoms and strings

An unusual alliance between physicists who study ultrahot plasmas and ultracold atoms is yielding intriguing results – and may even lead to an experimental test for string theory, as Barbara Jacak reveals

[Read more...](#)

From *Discover*
28 August 2009

Dark Energy: Still a Puzzle

Director's Corner

Keeping up with ILC technical progress



The cover page of the latest Project Managers' monthly report

One of my major challenges in writing this weekly column is tailoring it to an audience that ranges from scientifically interested outsiders to technical experts who are members of the Global Design Effort. From the recent *ILC NewsLine* survey we know that our audience is about evenly split between these constituencies and we try to balance the content accordingly. In this column, I also try to provide more general context and perspectives related to the ILC. Today, I want to advertise another useful resource that provides detailed ILC technical developments: the monthly [Project Managers' Report](#).

[Read more...](#)

-- Barry Barish

Director's Corner Archive

BlogLine

30 August - [Ingrid Gregor](#)
[Gone with the wind](#)

[Follow all Quantum Diaries](#)

Announcements

[CLIC09 Workshop](#)

CERN

12-16 October 2009

[12th International Conference On Accelerator And Large Experimental Physics Control Systems \(ICALPCS 2009\)](#)

Kobe International Conference

Center, Kobe, Japan

12-16 October 2009

Upcoming school

[Fourth International Accelerator School for Linear Colliders](#)

Beijing, China

7-18 September 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

...That is, they can cook up a result for distance vs. redshift in this model that looks like it would in a smooth model with dark energy, even though there's nothing but ordinary (and dark) matter in their cosmology.

[Read more...](#)

arXiv preprints

[0909.0266](#)

Relic density and future colliders: inverse problem(s)

[0909.0128](#)

The minimal B-L model naturally realized at TeV scale

[0909.0100](#)

Evaluating decay Rates and Asymmetries of Λ_b into Light Baryons in LFQM

[0908.4556](#)

Lepton flavor-changing processes in R-parity violating MSSM: $Z \rightarrow l_i \bar{l}_j$ and $\gamma\gamma \rightarrow l_i \bar{l}_j$ under new bounds from $l_i \rightarrow l_j \gamma$