

## Research Director's Report

### Spreading the excitement of discovery

This month's *Research Director's Report* was written by Jim Brau, co-chair of the Worldwide Study and regional detector contact for the Americas.



Public lectures like this one at the University of Oregon often draw a big crowd.

Why is the down quark's charge precisely one-third that of the electron? This is a remarkable relationship that challenged high school physics teachers meeting this summer with the Oregon QuarkNet programme. They will ponder this issue with their students when they return to the classroom in the autumn. Students now learn about quarks in high school and are armed with the knowledge needed to appreciate this remarkable reality: despite many distinctly different properties, the electron and the quark charges are related in this remarkably simple way. Why? And does it matter?

[Read more...](#)

-- Jim Brau

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## Calendar

### Upcoming meetings, conferences, workshops

[Lepton Photon 09](#)  
Hamburg, Germany  
17-22 August 2009

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

## Feature Story

### A user-friendly beam telescope for the ILC – *Mission: possible*



Ingrid Gregor, setting up the EUDET telescope at DESY.

Ingrid Gregor and her team will have a very busy summer. As a particle physicist, she coordinates a successful device for test beam infrastructures, the EUDET telescope, which is fully booked at CERN during the next four months. In her rare spare time, she also experiences the joys of blogging as she just [joined the team](#) of the ILC *Quantum Diarists*.

[Read more...](#)

-- Perrine Royole-Degieux

## In the News

From *Nature*  
15 July 2009

**Physicists wanted**  
New posts at SLAC National Acceleratory Laboratory.  
[Read more...](#)

From *New York Times*  
13 July 2009

### I'm a Particle Physicist. Want to Chat?

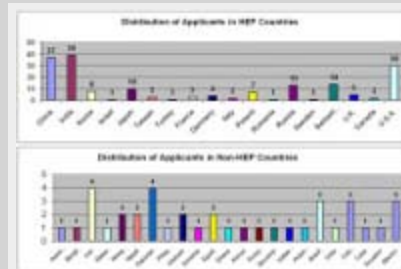
... I'm a physicist, and there's a perception about physics that it's somewhat of a remote discipline. People would probably love to talk to a musician or a doctor, but it's a no-go when it comes to making small talk with me.  
[Read more...](#)

From *Universe Today*  
9 July 2009

**Solved: Mystery of Gamma Ray Distribution in the Milky Way**  
A team of astrophysicists has solved

## Director's Corner

### Students admitted to LC accelerator school



The applicant pool for this year's LC accelerator school consisted of 244 applicants from 41 countries

Preparations continue toward our "[Fourth International Accelerator School for Linear Colliders](#)" to be held from 7 to 18 September in Beijing, China. The school continues to draw a large applicant pool as we received a total of 244 applications from 41 countries, similar to last year in the U.S. (245) and the year before in Italy (243). Thanks to the hard work of the three regional student selection teams, we have selected 71 highly qualified students for the 2009 school. There are another ten on the waiting list. We are very pleased with the admitted class and we will now work hard to arrange travel and visas, and to organise the programme in preparation for a hopefully very stimulating and educational experience for our students.

[Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

## BlogLine

15 July - [Ingrid Gregor Tools of Trade III](#)

12 July - [Frank Simon Successful Meetings](#)

10 July - [Ingrid Gregor Mo' Better Blues](#)

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

**Upcoming schools**

[International School of Physics  
"Enrico Fermi" \(SIF\)  
Radiation and particle detectors](#)  
Varenna, Villa Monastero, Italy  
20-25 July

[Linear Collider Physics School 2009](#)  
Ambleside, England  
17-23 August 2009

[Fourth International Accelerator  
School for Linear Colliders](#)  
Beijing, China  
7-18 September 2009

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

the mystery of the distribution of gamma rays in our Milky Way galaxy. While some researchers thought the distribution suggested a form of undetectable "dark matter", the team from the University of California, San Diego, proposed an explanation based on standard physical models of the galaxy.

[Read more...](#)

From *Wired*  
8 July 2009

**Historic Atom Smasher Reduced to Rubble and Revelry**

BERKELEY, California — What was once the world's biggest atom smasher will soon be nothing more than a collection of old photos and the dust beneath the next big science machine.

[Read more...](#)

From *symmetry*  
July 2009

**Dark Energy Camera scans ancient skies**

Gazing into space, scientists wonder why the universe is expanding ever faster. What mysterious force is at work? By recording the light from hundreds of millions of galaxies from a mountaintop in Chile, they hope to find out what's going on.

[Read more...](#)

From *symmetry*  
July 2009

**This family tree has physics branches**

Who is the grandfather of particle physics? Some might argue he is Otto Mencke, a German philosopher and scientist who received his doctorate from Leipzig University in 1688.

[Read more...](#)

[Follow all Quantum Diaries](#)

**Announcements**

**Register for ALCPG!**

Don't miss the early registration deadline for the Linear Collider Workshop of the Americas and GDE meeting, or [ALCPG](#), to take place this year in Albuquerque, New Mexico, US from 29 September to 3 October. After 1 August the registration fee goes up to 450 dollars! [Register here](#)

**arXiv preprints**

[0907.2431](#)

e+A physics at a future Electron-Ion Collider

[0907.2390](#)

Study of the Higgs Direct Reconstruction in ZH->qqH for ILC

[0907.2115](#)

A recursive reduction of tensor Feynman integrals

[0907.1462](#)

Non-degenerate Low Energy Leptogenesis