

## Calendar

**Friday, Jan. 30**  
**3:30 p.m.**  
 DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
**4:00 p.m.**  
[Joint Experimental-Theoretical Physics Seminar](#) - One West  
 Speaker: Michel Davier, LAL, Orsay  
 Title: BaBar Results on  $e^+ e^- \rightarrow \pi^+ \pi^-$  and the Muon  $g-2$  Prediction

**Monday, Feb. 2**  
**2:30 p.m.**  
[Particle Astrophysics Seminar](#)  
 - Curia II  
 Speaker: Leanne Duffy, Los Alamos National Laboratory  
 Title: Phase-Space Structure of the Milky Way's Dark Halo  
**3:30 p.m.**  
 DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
**4 p.m.**  
 All Experimenters' Meeting - Curia II  
 Special Topic: Preparing for the E-906/Drell-Yan Experiment

[Click here](#) for NALCAL, a weekly calendar with links to additional information.

## Weather

 **Partly cloudy**  
 17°/6°

[Extended Forecast](#)  
[Weather at Fermilab](#)

## Current Security Status

[Secon Level 3](#)

## Wilson Hall Cafe

## Feature

### ANL, Fermilab and UChicago come together for fifth meeting

In an ongoing effort to keep Illinois a science powerhouse, Fermilab, Argonne and University of Chicago scientists continue to look for future collaborative opportunities.

More than 70 scientists from the three institutions will meet Monday at Argonne for the fifth joint meeting organized to share ideas about future projects and institutions' strategic plans.

The meetings, started in 2006 by Fermilab and Argonne, initially focused on accelerator R&D. While this is still a large focus of the collaboration, particularly in regards to Project X, a series of research grants provided by the University of Chicago has led to joint projects in other research areas as well.

Proposals for joint projects include the production of better superconducting cavities, detector R&D, work on the LHC experiments and phenomenology, improvement of education and training of accelerator physicists, and work on Fermilab-hosted neutrino projects such as NOvA and the beamline to DUSEL. Scientists will also discuss an MOU for collaborative work on Project X.

"The focus has really been broadened," said Young-Kee Kim, Fermilab's deputy director. "I'm excited about the potential joint efforts that can be jump started by this meeting."

## Milestone

### Congratulations to Tuition Assistance Program graduates

## From ISGTW

### Beauty to unlock the mystery of asymmetry



The LHCb electromagnetic calorimeter, a device to detect electrons, their antiparticles (called positrons) and photons, particles of light. This immense array will collect immense amounts of data, requiring immense amounts of computing power and data storage. *Image courtesy of LHCb.*

Particles and their companion antiparticles differ only in the sign of their electric charge (positive or negative), and in other respects behave identically in most situations. Physicists were therefore stunned in 1964 to discover that some antiparticles behave differently from their particles.

An experiment at CERN called LHCb, for "Large Hadron Collider beauty" (where "beauty", also known as "bottom", is the second heaviest of the six known quarks), will study this difference in behavior, referred to as "asymmetry." The scientists expect to process 700 Terabytes of data a year at several Enabling Grids for E-scienceE (EGEE) sites. In preparation, they've recently been running 10-20 thousand simulation jobs a day on the grid. The yearly processing power required for the simulations is equivalent to roughly 3,600 Dell Precision T7400 processors running continuously. Once data starts flowing, they'll need to add 50% more computing power.

Universe out of balance

Scientists refer to the identical, or symmetric, behavior of particles and antiparticles as

## Friday, Jan. 30

- New England clam chowder
- Arizona jalapeno burger
- Citrus lime grilled chicken
- Iron city kielbasa
- Tampa bay touchdown club
- Assorted sliced pizza
- Cobb salad

[Wilson Hall Cafe Menu](#)

## Chez Leon

## Wednesday, Feb. 4

### Lunch

- Grilled pork loin with braised red cabbage and wild mushrooms
- Baked stuffed apples

## Thursday, Feb. 5

### Dinner

- Closed

[Chez Leon Menu](#)

Call x3524 to make your reservation.

## Archives

[Fermilab Today](#)

[Result of the Week](#)

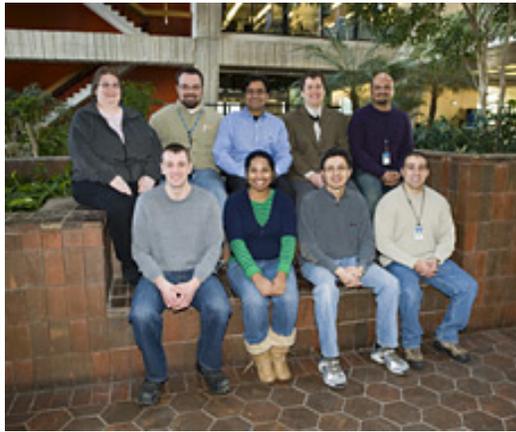
[Safety Tip of the Week](#)

[ILC NewsLine](#)

## Info

Fermilab Today is online at: [www.fnal.gov/today/](http://www.fnal.gov/today/)

Send comments and suggestions to: [today@fnal.gov](mailto:today@fnal.gov)



A group of Fermilab employees can check another thing off their to-do list: earning a degree.

Each year, Fermilab employees earn degrees ranging from a bachelor's to a Ph.D. by taking advantage of the laboratory's Tuition Assistance Program.

A group of the most recent graduates is pictured above: Front row: AD's Tom Kubicki, bachelor's in information technology from Illinois Institute of Technology, Dec. 2008; AD's Roshanda Spillers-Nolin, B.S. in information systems technologies from SIU at Carbondale, May 2007; TD's Tug Arkan, master's in engineering management from Northwestern University, June 2008; AD's Alexander Martinez, master's in mechanical engineering from Illinois Institute of Technology, Dec. 2007.

Back row: BS's Lori Limberg, master's in information systems management from Keller Graduate School of Management and DeVry University, April 2008; WDRS's Spencer Pasero, master's in educational research and evaluation from Northern Illinois University, May 2008; CD's Anil Kumar, MBA in business administration from Northern Illinois University, May 2008; CD's Robert Kennedy, MBA & graduate certificate in project management from Keller Graduate School of Management and DeVry University, Oct. 2007; CD's Anzar Afaq, master's in information technology and management from DeVry University, Feb. 2008.

Not pictured: AD's Trevor Butler, master's in electrical engineering from Illinois Institute of Technology, Dec. 2007.

## Special Announcement

Charge Parity (CP) symmetry. The unexpected asymmetry that violates it is known as "CP violation". This asymmetry helps explain why the current Universe seems almost entirely made of particles with virtually no antiparticles. Although the standard model of particle physics does provide a source of CP violation—in weak interactions, for example, nuclear decay—it is not enough to explain the huge imbalance.

[Read more](#)

## Announcements

### Latest Announcements

[Nominations Requested for Job Profiles](#)

[Discount Tickets: Disney On Ice Presents Worlds of Fantasy](#)

[Discount Tickets to Smucker's Stars On Ice](#)

[Discount Tickets: World's Toughest Rodeo Presents Toughest Cowboy](#)

[C2ST presents Bioterrorism, Pandemics, & Vaccines Jan. 27](#)

[Second Annual Mentor Round Up](#)

[English Country Dancing, Feb. 1](#)

[Have a safe day!](#)

[Intermediate / Advanced Python Programming - Jan. 27 - 29](#)

[NALWO Brown Bag Lunch Jan. 27 - "Women as Classic: From BC to AD"](#)

[ACU bill pay demonstration Jan. 29](#)

[Recreation Office Meeting Jan. 30](#)

[Outlook 2007 New Features classes scheduled Feb. 3 and 26](#)

[Conflict Management & Negotiation Skills class offered Feb.3](#)

[PowerPoint 2007: New Features class offered Feb. 3](#)

[Facilitating Meetings That Work class offered Feb. 4](#)

## **URA Thesis competition accepting admissions**

Fermilab and the Universities Research Association invite submissions for the twelfth annual URA Thesis award competition.

The award recognizes the most outstanding thesis related to work conducted at Fermilab or in collaboration with Fermilab scientists. The thesis must be completed in the 2008 calendar year. Nominations must be submitted to Steve Brice ([sbrice@fnal.gov](mailto:sbrice@fnal.gov)) by March 1 and should include at least two letters supporting the merits of the thesis you are nominating. At least one letter should be from a member of the thesis committee of the Ph.D.-granting institution.

The Thesis Awards Committee will select the winning thesis. Each thesis will be judged on clarity of presentation, originality and physics content. To qualify, the thesis must have been submitted as partial fulfillment of the Ph.D. requirements in the 2008 calendar year, be written in English, and submitted in the electronic form to the Fermilab Publications Office in accordance with Fermilab policy.

For more details, consult the [URA Thesis Award web site](#).

[Word 2007: New Features class offered Feb. 4](#)

[Excel 2007: New Features class offered Feb. 4](#)

[Interpersonal Communication Skills class being offered Feb. 5](#)

[Bulgarian Dance Workshop, Feb. 12](#)

[Changes to the Family and Medical Leave Act](#)

[Changes in U.S. admission procedure](#)

[Additional Activities](#)

[Submit an announcement](#)