

## Calendar

### Wednesday, Oct. 31

THERE WILL BE NO FERMILAB ILC R&D MEETING THIS WEEK

**3:30 p.m.**

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

**4 p.m.**

[Fermilab Colloquium](#) - One

West

Speaker: F. Gianotti, CERN

Title: Preparing for Physics with First ATLAS Data at the LHC

### Thursday, Nov. 1

**9:30 a.m.**

[Presentations to the Physics Advisory Committee](#) - Curia II

**11 a.m.**

Academic Lecture Series - One North

Speaker: G. Landsberg, Fermilab

Title: Experimental Signatures for Extra Dimensions in Space

THERE WILL BE NO ILC ALCPG PHYSICS AND DETECTOR SEMINAR THIS WEEK

THERE WILL BE NO THEORETICAL PHYSICS SEMINAR THIS WEEK

**3:30 p.m.**

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

**4 p.m.**

[Accelerator Physics and Technology Seminar](#) - One

West

Speaker: M. Tartaglia, Fermilab

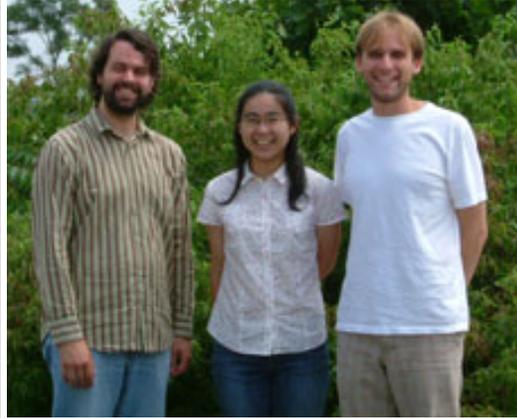
Title: Magnet Reliability in the Fermilab Main Injector and Implications for the ILC

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

## Weather

## Feature

### Undergraduate sets first lower limit on top quark lifetime



From left: Erik Brubaker, post-doc at University of Chicago; Satomi Shiraishi, graduate student at University of Chicago; and Jahred Adelman, graduate student at University of Chicago.

Satomi Shiraishi has a history of accomplishing difficult things. At 14, she left Japan to attend boarding school in upstate New York. At 23, she set the first lower limit on the lifetime of the top quark using the reconstructed top quark mass distribution, a feat unusual for someone so young.

Now a graduate student pursuing a PhD in physics from the University of Chicago, Shiraishi is petite, cheerful and still somewhat awed by her own accomplishments.

Her analysis, after nearly two years of work, was completed and "blessed" by the CDF collaboration this past summer and currently is in the process of publication.

"It was a nice opportunity," said Shiraishi. "People are excited about the analysis and that is an exciting part about research."



Shiraishi began analyzing data from the CDF experiment in December 2005 as part of an undergraduate thesis option offered by the University of Chicago. She chose Fermilab deputy director Young-Kee Kim, who is also a professor at University of Chicago, as

## From the Technical Division

### Awakening the beast

*Today's column is written by Roger Dixon, head of the Accelerator Division.*

The scheduled shutdown of our accelerator complex is over and we are well into the process of awakening the "Beast." Overall, the shutdown went well thanks to the efforts of many dedicated people in all of the divisions and sections, and especially in the Accelerator Division -- which is my favorite.



Roger Dixon

Overall, the shutdown seemed to go very smoothly, as long as one stayed far from the accelerator enclosures. A closer look revealed a different story. For example, one of the Tevatron houses, E1, was renamed Evil-1 after cryogenic system repairs in the house were completed. A very dedicated leak checking crew had the time of their lives trying to get the house put back together without any helium leaks. They earned the right to call it whatever they want.

A big concern is completing these shutdowns safely, and one troublesome element of this activity, is the focus that our exceptional technical people can bring to a problem. It is easy for these talented people to become completely absorbed in chasing down some of the puzzles that confront them. This often results in intense efforts for long hours. It is necessary to remind them to take breaks and to be aware of their surroundings.

The startup began three weeks ago -- right on schedule -- and is progressing well. This is the time when the Operations Department and all of the machine systems departments are asked to step up and work around the clock to get more than 100,000 devices working, beginning with the one small coffee machine outside of the Main Control Room. The work is no easy task since substantial changes were made in all of the accelerators. As a result, orbits and lattices must be measured and corrections calculated and put in place. It sure is fun over here for some people.



Chance of showers 62°/37°

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

**Current Security Status**

[Secon Level 3](#)

**Wilson Hall Cafe**

**Wednesday, Oct. 31**

- Portabello harvest grain
- Santa Fe chicken quesadilla
- Hoisin chicken
- Beef stroganoff
- Cuban panini
- Assorted slice pizza
- Pesto shrimp linguini w/leeks & tomatoes

[Wilson Hall Cafe Menu](#)

**Chez Leon**

**Wednesday, Oct. 31  
Lunch**

- Skeleton's bones
- Monster's eyes
- Vampire's wishes
- Ghost delight

**Thursday, Nov. 1  
Dinner**

- French onion soup
- Grilled halibut w/tarragon white butter sauce
- Grilled new potatoes
- Green beans w/lemon zest
- Chocolate soufflé w/hazelnut crème Anglaises

[Chez Leon Menu](#)

Call x4598 to make your reservation.

**Archives**

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

Fermilab Deputy  
Director and  
University of  
Chicago professor  
Young-Kee Kim.

her mentor.

"I knew it would be difficult to complete. I did not expect her to come this far. Undergraduates usually don't access this level of a complex physics analysis," said Kim. "But Shiraishi kept going."

Although many of her friends were living the typical college life, Shiraishi dedicated her free time to her analysis. Every Saturday morning, beginning promptly at 8 a.m., Shiraishi and Kim met for coffee and talked about progress on the analysis. Shiraishi also spent time with CDF collaborators via videoconference, and spent much of her summer vacation on site.

There were points when Shiraishi said she felt in over her head, but the support from Kim and her CDF collaborators, Erik Brubaker and Jahred Adelman, helped to keep her motivated. "I could not have done the analysis without their consistent support," said Shiraishi.

"It was really important to me that everyone took my analysis seriously," Shiraishi said. "It kept me motivated and challenged."

Defining the lifetime of the top quark is significant, Kim said. This is a limit that has never previously been established.

-- *Rhianna Wisniewski*

## Playgroup party fit for pirates, princesses and their parents

On Saturday afternoon, as pint-sized princesses made crayon sketches and cowboys and pirates gulped down juice, their parents had a chance to relax and make new friends.

"A lot of people in playgroup don't know many people. [The costume party] is something really fun where they can get involved and meet others," said playgroup leader Jennifer Jansson.



Costumed children and adults enjoy the annual playgroup costume party on Oct. 27 in Kuhn Barn.

**In the News**

## The Great Cosmic Roller-Coaster Ride

From *ScientificAmerican.com*, November 2007

You might not think that cosmologists could feel claustrophobic in a universe that is 46 billion light-years in radius and filled with sextillions of stars. But one of the emerging themes of 21st-century cosmology is that the known universe, the sum of all we can see, may just be a tiny region in the full extent of space. Various types of parallel universes that make up a grand "multiverse" often arise as side effects of cosmological theories. We have little hope of ever directly observing those other universes, though, because they are either too far away or somehow detached from our own universe.

[Read More](#)

**Milestones**

## New hires

*New hires Oct. 24-30:*

- Marta Lockhart - administrative support assistant - CD
- Alison Fitzgerald - taxi driver - BS
- Catalin Dumitrescu - computer professional - CD
- Paul Libel - budget analyst - AD
- Michael Pfaff - groundskeeper - FESS

**Safety Update**

## ES&H weekly report, Oct. 30

This week's safety report, compiled by the Fermilab ES&H section, has one reportable injury. The full report is [here](#).

[Safety report archive](#)

**Announcements**

**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)

Saturday marked the fifth annual playgroup costume party, an opportunity for children and their parents, who are typically new to the laboratory, to learn about and enjoy the American holiday and other fall traditions.

Marylene Ruiz-Lebrun moved with her husband, Patrice, a DZero collaborator, and their child to Fermilab from France last year.

"I love the colors, the imagination and the costumes," she said. "They help us get into the spirit of the holidays before Christmas. It's an important thing for kids and a good moment to share."

There are about 50 members of playgroup, which is sponsored by National Accelerator Laboratory Women's Organization. Most parents are expatriates, and their children range in age from 6 months to 6 years. The playgroup meets Monday and Wednesday afternoons from 3:30 to 5:30 p.m. in the Music Room at the Users Center.

-- Haley Bridger

**In the News**

## **Town meeting: Deep Underground Science and Engineering Laboratory (DUSEL)**

**From *NSF Media Advisory*, Oct. 30, 2007**

*Scientific study group to discuss next phases on Nov. 2, in Washington, D.C.*

The site-independent study group of the Deep Underground Science and Engineering Laboratory (DUSEL) will present the scientific and education potential of DUSEL to federal officials, the press and other interested parties at a town hall meeting, Friday, Nov. 2, 2007, in Washington, D.C. The site-specific technical design of the envisioned Homestake (South Dakota) laboratory will also be presented. Prominent leadership of the National Science Foundation (NSF) and other federal agencies will participate. The attendees, including more than 100 scientists, will also hear from a South Dakota delegation including Governor M. Michael Rounds.

[Read More](#)

**[Have a safe day!](#)****GSA Halloween Party**

Fermilab's Graduate Student Association will host a Halloween party tonight, October 31, at 6:30 p.m. in Kuhn Barn. There will be a costume contest and Drug Sniffing Dogs, the a band of CDF collaborators, will be performing. Free food and drinks will be served.

**Prairie Harvest on Nov. 3**

The second 2007 Prairie Harvest is being held on Nov. 3, 2007, from 10 a.m. to 2 p.m. More information on the event can be found [here](#). Plan to learn more about our ecology and the prairies.

**International Folk Dance Halloween and Dia de los Muertos party Thursday**

International Folk Dancing will hold a Halloween and Dia de los Muertos Party on Thursday, Nov. 1, at Kuhn Barn. Costumes and treats are encouraged. Dancing begins at 7:30 p.m. with Mexican dances and special Halloween fun. Newcomers are welcome, and you do not need to come with a partner. For more information, call (630) 584-0825 or (630) 840-8194 or [e-mail](#).

**EAP office hours temporary change**

The EAP office will be open Tuesday, Oct. 30, from 9 a.m. to 1 p.m. but will be closed on Wednesday, Oct. 31, and Friday, Nov. 2. It will be open again on Tuesday, Nov. 6, from 9 a.m. to 1 p.m. but will be closed Wednesday, Nov. 7, and Friday, Nov. 9. The EAP office will resume the regular schedule on Wednesday, Nov. 14. The EAP is available 24/7 by calling (800) 843-1327.

**Update your information by e-mail**

[Records@fnal.gov](mailto:Records@fnal.gov) is the new e-mail address to use when making changes to your records. Use it to update your address, phone number, mail station and your work location.

**Flu shot clinic Nov. 6**

The Fermilab Medical Office will be offering a flu shot clinic on Tuesday, Nov. 6, 2007. If you have received the flu shot, please ignore this notice. You are eligible to receive the flu vaccine free if you are an active, full-time, regular employee or a term or temporary employee. Contractors, family members of employees, visitors, experimenters, seasonal employees, dayworkers, on-call workers or retirees are not eligible. The clinic will be held in the ES&H Training Room on the ground floor of Wilson Hall from 9 a.m. to 12:30 p.m. Advance registration is required and is

available [online](#) or by calling x3232.

[Additional Activities](#)