

Calendar

Tuesday, January 10

3:30 p.m. Director's Coffee Break - 2nd Flr X-Over

4:00 p.m. Accelerator Physics and Technology Seminar - 1 West
Speaker: M. Edelweiss Monville, Oak Ridge National Laboratory

Title: Simulation of an Active Material Interrogation System Based on Photofission, and Novel Nano-Fabrication Method

Wednesday, January 11

11:00 Fermilab ILC R&D Meeting - 1 West

Speaker: S. Mishra, Fermilab
Title: ILC Baseline Configuration Document

3:30 Director's Coffee Break - 2nd Flr X-Over

Note: There will be no Fermilab Colloquium this week

Weather



Mostly Cloudy **39°/31°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Fermilab Today Takes Stock: Tell Us How We're Doing



Fermilab Today's first issue was sent to employees and users on the morning of July 21, 2003. (Click image to see first issue.)

For more than two years, *Fermilab Today* has been a part of daily life at Fermilab. It's high time to hear from our readers how *Fermilab Today* is doing the job of communication within the laboratory community. So the time has come to ask for your opinions.

To give us a chance to hear from all employees, including regular and not-so-regular *Fermilab Today* readers, the Office of Public Affairs has asked the Survey Lab at the University of Chicago to conduct a *Fermilab Today* Employee Survey. Later this week, you'll receive an email message from the Survey Lab with the subject line, "2006 Fermilab Today Employee Survey," explaining how to complete the survey online. We hope you'll find 10 or 15 minutes to complete the survey. We'll use the results to try to improve the usefulness of *Fermilab Today* as a daily source of information for all employees.

Your name will not be linked to the

Director's Corner

Numbers

In the last month we have achieved four new records. Two of those records are the highest and two the lowest numbers that we have ever achieved. Here I want to celebrate both.



Pier Oddone

In early December we had an electrical arc in a separator in the Tevatron that caused damage and forced a shutdown of several weeks. We took advantage of the shutdown to study the antiproton production machinery, using protons going in the reverse direction. We discovered that we needed to correct several misalignments. After the shutdown, the Tevatron came roaring back to life and very quickly reached a record instantaneous luminosity of $1.72E32$ on January 6 and a record integrated luminosity per week of over 24 pb^{-1} for the week of December 26, 2005. These are a great achievement that we all feel proud of. The Tevatron has more than doubled the integrated luminosity over the last year and now achieves peak luminosity typically 70 percent higher than at the beginning of last year.

At this point we also have two lowest numbers ever. Our injury rates are at an all time low. During the last twelve months, the Total Recordable Case (TRC) rate for our employee/contractor workforce is 1.12 per 100 FTE years and the Days Away, Restricted or Transferred

Tuesday, January 10

- Golden Broccoli & Cheese
- Hickory Smoked BBQ Pork
- Coconut Crusted Tilapia
- Toasted Almond Chicken Salad on Croissant
- Supreme Baked Pizza
- Fettucine Chicken

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express.

[Wilson Hall Cafe Menu](#)

Chez Leon**Wednesday, January 11****Lunch**

- Tinge Con Tostados
- Rice and Beans
- Pico De Gallo
- Banana Spring Rolls

Thursday, January 12**Dinner**

- Gruyere and Black Forest Ham Crepes
- Shrimp Scampi
- Spinach Fettuccine
- Cassata

[Chez Leon Menu](#)

Call x4512 to make your reservation.

Search**Search the Fermilab Today Archive****Info**

answers you provide, and the Survey Lab will not report the results in any way that would identify an individual response. Instead, the Survey Lab will provide Public Affairs only with aggregate results. *Fermilab Today* will publish a summary of the survey results this spring. Thank you.

—*Judy Jackson*

CDF Physicist Wins APS Tanaka Award for 2005

From a worldwide pool of nominees, Maria Florencia Canelli, currently working on the CDF experiment, received the

American Physical Society's 2005

Mitsuyoshi Tanaka

Dissertation Award in Experimental Particle Physics. The name is



[Florencia Canelli](#)

a mouthful, but the reason she won is quite simple: her dissertation unveiled a better way to measure the helicity of a W boson in a top-antitop event. In Canelli's words: "The Standard Model predicts that quarks decay into W bosons that spin like left-handed screws (this is called negative helicity). Looking for right-handed helicity may help identify deviations from the theory."

Canelli wrote the thesis for her PhD dissertation in 2003, as a University of Rochester student working at DZero under the supervision of Professor Tom Ferbel. The thesis used a new technique to gain information about the top quark using clues from top-antitop production. This method has been applied to other physics analyses in CDF and DZero, and is more accurate than other techniques; it has led to a more precise measurement of top mass and helicity, and provided a

(DART) rate is 0.2 per 100 FTE years. These are the lowest numbers that we have ever achieved in a one-year period and we are enormously proud of the effort that everyone at the laboratory has made to get to this point. A few years ago these annual injury rates were several times higher.

As good as these numbers are, we should take only about a microsecond to celebrate before we get back to work. We have enormous challenges ahead. By 2007, to meet the goals established by Ray Orbach, Director of the Office of Science, we will have to cut the TRC rate by roughly a factor of two and maintain the DART rate at this all-time low level. For the luminosity of the Tevatron we are setting equally ambitious goals, roughly a factor of two for both peak and integrated luminosities from today's records. If past is prologue, I am confident we will meet these challenges.

Accelerator Update**January 6 - 9**

- During the 72 hour period operations established two stores that along with a previous store provided the experiments with 61 hours and 15 minutes of luminosity.
- Booster RF problems caused lower intensities at times.

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

Fermilab Today is online at: <http://www.fnal.gov/today/>

Send comments and suggestions to today@fnal.gov

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new approach for measuring top-gluon coupling.

"Florenca was an inexhaustible bundle of energy and great fun to work with during her graduate years," said Ferbel, who served as her advisor for the dissertation. "Her development at CDF has been quite breathtaking, and she continues to impress me with her determination, her vigor and her insights." Canelli says she felt "proud and thankful" when she heard that she won the [award](#), which consists of \$1,500 and an allowance of up to \$1,000 for travel to attend the annual meeting of the Division of Particles and Fields (DPF) where the award will be presented. "I could never have done this without the help of Dr. Gaston Gutierrez [Fermilab physicist], Dr. Juan Estrada [Fermilab postdoc at that time, Wilson Fellow now], and of course, my advisor, Tom Ferbel," she said.

—Siri Steiner

In the News

From *People's Daily Online*, January 9, 2006: New particle "out of" Beijing Electron Positron Collider

As an international scientist group announced recently, a new particle had been spotted during a Beijing Spectrometer (BES) experiment on Beijing Electron Positron Collider (BEPC).

The group, composed of scientists from China, the United States and Japan, etc., initially named the particle X1835.

Other experts with the group announced the discovery at the same time at the University of Hawaii in the United States.

NALWO Slideshow

National Laboratory Women's Association slideshow and luncheon will take place on January 23, 2006, from 11:00 a.m. until 1:00 p.m. in the Users Center Music Room. We'll have lunch together after the slide talk, so bring a sack lunch. Beverages and desserts will be provided. Lab women, guests, visitors, users and employees are welcome. For additional information, contact: Cynthia Albright at 630/208-8010; cynalbr@earthlink.net

English Country Dancing

English Country Dancing, a new dance group at Kuhn Barn, will have its first meeting on Sunday, January 22, at 2 p.m. All are welcome to try out this accessible set dancing to lovely music. It is based on walking steps and has figures related to barn or contra dancing. The dancing will be done to recorded music but musicians are encouraged to come dance and join a jam session which will be held after the dancing. There is no charge. All dances will be taught and walked through and you don't need to come with a partner. For more information, call 630-584-0825 or 630-840-8194 or email folkdance@fnal.gov.

International Folk Dancing

International Folk Dancing will meet Thursday, January 12, at Kuhn Barn on the Fermilab site. Dancing begins at 7:30 p.m. with teaching and children's dances earlier in the evening and request dancing later on. Newcomers are welcome and you do not need to come with a partner. Info at 630-584-0825 or 630-840-8194 or folkdance@fnal.gov.

Discounted Special Event Tickets

Order forms are available in the

The new particle probably is the one that world researchers in high energy physics have been seeking for decades, according to Jin Shan, an research fellow with the institute.

Breakthroughs are expected to be made through in-depth studies on the structure of X1835 so as to promote the development of basic physical theories.

[Read More](#)

Recreation Office for discounted tickets for the following performances: Disney on Ice: The Incredibles at the Allstate Arena, Harlem Globetrotters 80th Anniversary at the United Center, Smuckers Stars on Ice at the AllState Arena, The Sound of Music at the Cahn Auditorium, and Murder Mystery Dinner Theater at the Milk Pail Restaurant. More information and order forms can be found on the [Website](#).

[Upcoming Activities](#)