

## Calendar

### Tuesday, October 25

**11:00 a.m.** Computer Techniques Seminar - 1 West

Speaker: M. Paterno, Fermilab

Title: Easy Data Analysis Using R

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

**6:00 p.m.** Budker Seminar - Users Center

Speaker: Ryoichi Miyamoto

Title: Beta star measurement around the IP

**Note:** There will be no Accelerator Physics and Technology Seminar today

### Wednesday, October 19

**11:00 p.m.** ILC R&D Meeting - 1 West

Speaker: V. Kuchler, Fermilab

Title: ILC Conventional Facilities Update

**1:30 p.m.** Special Seminar - 1 West

Speaker: C. Rubbia, CERN/University of Pavia

Title: Twenty Years of Liquid Argon Technology for Underground Detector Imaging

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

**4:00 p.m.** Fermilab Colloquium - 1 West

Speaker: M. Tolstoy, Columbia University

Title: Applications of Ocean Acoustic Monitoring to Understanding Our Planet

## Weather



Partly Cloudy **52°/35°**

[Extended Forecast](#)

[Weather at Fermilab](#)

## Current Security Status

## Again, Tevatron Sets World Record for Peak Luminosity

On Tuesday, October 25, at 3:28 a.m. the Tevatron improved its world-record peak luminosity to  $144.91E30 \text{ cm}^{-2}\text{sec}^{-1}$ . Significant contributions came from the new electron cooling system, which will be featured in an upcoming luminosity series in *Fermilab Today*. Congratulations!

## Computer Security: Watch Out For Con Artists' Games

In computer security, social engineering describes a non-technical kind of intrusion that often involves tricking other people to break normal security procedures. In short, social engineering is a con game. Consider the following true examples:

Jane enters a government facility by simply talking to employees and 'piggybacking' through the doors. Guards ignore her since she is with a group of employees, some of whom swipe their cards to unlock the door. Once inside, she breaks off from the group and finds her way to the server room. She finds an administrator along the way and convinces him that she works for a vendor, was installing some software and accidentally locked herself out of the server room. He dutifully lets her in the server room without further question. She is left alone with the core servers, well on the way to gaining unauthorized access.

[Read more about social engineering and learn how to prevent it](#)

## Director's Corner

### Top Fun

Friday's celebration of the tenth anniversary

of the discovery of the top quark by DZero and CDF was a rare treat. It is not often that we hear erudite talks about accelerators and physics alongside talks about the high



Pier Oddone

emotions and the drama behind great discoveries. The search for the top quark was a world-wide saga lasting more than two decades. Many fell by the wayside, as accelerators "sure" to create top quarks fell short of the energy required to produce them. At some point, as the limits on the mass of the top quark rose to higher and higher levels, only the Tevatron remained.

The story of the Tevatron is as rich as the machine is complex and goes back to nearly the beginnings of the laboratory. The real fun of the top discovery started when the accelerator produced a significant rate of collisions. The two collaborations raced to the discovery at a time when they were still trying to understand their detectors. The protagonists told stories about how the excitement of making a great discovery was balanced by the terror of getting the wrong result. They explained with humor and candor the dynamics of the two collaborations and how they affected the way the early results were treated. For

**Wilson Hall Cafe**

**Tuesday, October 25**

- Creamy Turkey Vegetable
- Chicken Gyros
- Salisbury Steaks w/Mushroom Au Jus
- Chicken Cacciatore
- Italian Panini w/Provolone
- Philly Cheese Stromboli
- Chipotle Chili & Queso Nachos Supreme

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express at Cash Register #1.

[Wilson Hall Cafe Menu](#)

**Chez Leon**

**Wednesday, October 24**

**Lunch**

- Enchiladas
- Rice and Beans
- Pico De Gallo
- Pecan Rum Cake

**Thursday, October 20**

**Dinner**

BOOKED

[Chez Leon Menu](#)

Call x4512 to make your reservation.

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**Info**

## Hundreds Gather to Honor Top Quark Discovery



The Wilson Hall Atrium was filled with revelers at the Top Turns Ten Celebration last Friday.

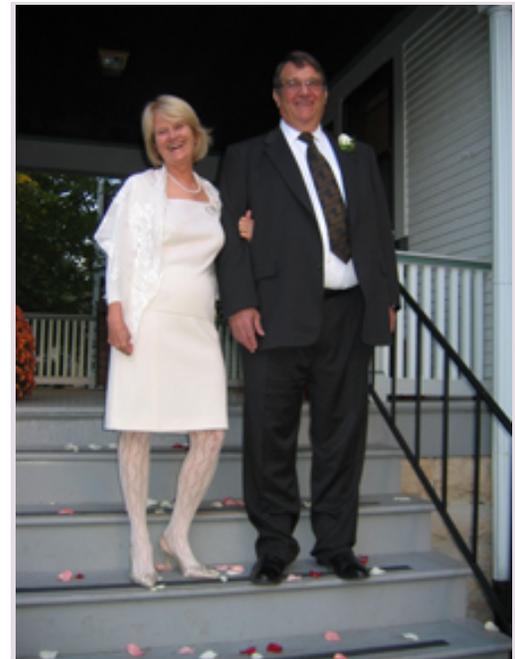
The Wilson Hall Atrium buzzed on Friday as hundreds of Fermilab scientists, employees and visitors gathered to celebrate the 10th anniversary of the top quark discovery. Inside the Atrium, people inspected an array of posters highlighting the discovery's technical aspects, its meaning and the parties that ensued. And in the Ramsey Auditorium, scientists who witnessed the challenges and triumphs of finding the top shared their memories with the audience.

CDF's Doug Glenzinski, a graduate student at the time of the discovery, offered a perspective a young physicist caught up in the excitement. He described fierce internal competition, a lack of sleep and sitting through 5-hour-long meetings in crammed Wilson Hall rooms. "There were no laptops then, so everyone was paying attention," he said wryly. He also reminisced about student camaraderie and lessons learned along the way. "We learned a great deal," he said. "This was our introduction to the Scientific Method." Meenakshi Narain, a DZero postdoc during the discovery, talked about intense debates questioning whether or not to publish early top findings. She said she'll always remember

those of us who were not there, it was a very special glimpse into the inner workings of these two complex and ultra-competitive enterprises.

Will we have a celebration for another great discovery? We are at a threshold moment when the improvements of the Tevatron to achieve much higher luminosity coupled with the increasingly powerful analysis of data give us a great window for discovery. The race will be even more interesting than for the top quark as the two collaborations race not along one front, but along multiple fronts. If the top celebration was fun, think about how much fun the next one will be.

**Milestones**



**Congratulations to Peter Limon and Judy Jackson!** Peter Limon, a Fermilab physicist in the Technical Division and Judy Jackson, the head of Fermilab Public Affairs, were married on Saturday, October 22. The wedding was at 4:00 p.m. at their home in Naperville with their children in attendance. (Click on image for larger version.)

**Accelerator Update**

Fermilab Today is online at:

<http://www.fnal.gov/today/>

Send comments and suggestions to

[today@fnal.gov](mailto:today@fnal.gov)

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a congratulatory note circulated by the experiment's spokesmen after the discovery: "You don't get to be part of a team that discovers a new elementary particle more than once."

But maybe you can. "This opens up a very broad range of physics," Fermilab Director Pier Oddone said during his closing remarks. "We are no longer just looking for a single thing." With the high energy of CERN's Large Hadron Collider and an increase in luminosity at the Tevatron, Oddone said other discoveries wait ahead. "It's clear we're headed to an area where we all expect a revolution," he said. "The thing that would top the top would be to find something unexpected."  
—Kendra Snyder

### In the News

## High Energy Accelerator Research Organization (KEK) Press Release, October 24, 2005:

### Request for Candidate Recommendations for the Position of the Next Director General

KEK, the High Energy Accelerator Research Organization, welcomes recommendation of the candidates for the next Director-General whose term will begin April 2006.

KEK is an Inter-University Research Institute Corporation open to domestic and international researchers, and is comprised of the Institute of Particle and Nuclear Studies, the Institute of Materials Structure Science, the Accelerator Laboratory, and the Applied Research Laboratory. KEK pursues a wide range of research activities based on accelerators,

### October 21 - 24

- During this 72 hour period, three stores provided 62 hours and 18 minutes of luminosity.
- P1 vacuum cascades controlled.
- Store 4465 sets Record Luminosity with an initial luminosity of 144.512E30.

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

### Announcements

#### Shutdown Begins March 1

The 14-week shutdown of the Fermilab accelerator complex is scheduled to begin on March 1. A draft schedule on how the shutdown will affect the experiments at the lab is available [online](#). *Fermilab Today* will provide updates in the future.

#### Special Seminar

Professor Carlo Rubbia of CERN and University of Pavia will be giving a Special Seminar at Fermilab in the 1 West Conference Room on Wednesday, October 26, starting at 1:30 p.m. The topic is "Twenty years of liquid argon technology for underground detector imaging". *Fermilab Today* will provide a link to the live streaming video on Wednesday.

#### West Parking Lot

On Saturday October, 29, the West Parking Lot of Wilson Hall will be repaved. Pedestrians and drivers should be cautious of grooved surfaces and uneven pavement until this work is done. Call Roads and Grounds with any questions or concerns (x3303)

#### October PC Manager Meeting

Meeting is on Wednesday, Oct 26, from 9-

such as particle and nuclear physics, material sciences, biosciences, accelerator physics and engineering, etc.

The role of Director-General, therefore, is to promote, with long-term vision and strong scientific leadership, the highly advanced, internationalized, and interdisciplinary research activities of KEK by getting support from the public. He/she is also expected to carry out the medium-term goals and plans of the organization.

[Read More](#)

10 a.m. at WH8 crossover (The Hornets Nest). If you'd like to be added to the PC Manager email list and Meeting Maker notice please send email to [schmidt@fnal.gov](mailto:schmidt@fnal.gov)

### **Unix Users Meeting**

Held in Curia II at 1:00 p.m. on October 26, the meeting will address Linux Updates and General Security Announcements.

### **International Folk Dancing Halloween Party**

IFD will hold a Halloween party on Thursday, October 27, at Kuhn Barn on the Fermilab site. Costumes and bringing treats is encouraged, but not at all necessary. 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](mailto:folkdance@fnal.gov).

### **Scottish Country Dancing and Halloween Party**

Scottish Country Dancing will meet Tuesday, October 25, at Kuhn Barn on the Fermilab site. Instruction begins at 7:30 p.m. and newcomers are always welcome. Most dances are fully taught and walked through, and you do not need to come with a partner. The Silk and Thistle group's annual Halloween party will take place next Tuesday, on Nov. 1. Info at 630-840-8194 or 630-584-0825 or [folkdance@fnal.gov](mailto:folkdance@fnal.gov).

### **[Upcoming Activities](#)**