

## Furlough Information

### Reminder:

An IDES representative will conduct group meetings at 11 a.m. and noon in the Wilson Hall One West conference room on Friday, March 21, and Friday, March 28.

New furlough information, including an [up-to-date Q&A](#) section, appears on the [furlough Web pages](#) daily.

## Layoff Information

New information on Fermilab layoffs, including an [up-to-date Q&A](#) section, appears on the [layoff Web pages](#) daily.

## Calendar

### Friday, March 21

3:30 p.m.

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

4:00 p.m.

[Joint Experimental-Theoretical Physics Seminar](#) - One West  
Speaker: S. Soldner-Rembold,  
University of Manchester  
Title: DZero Physics Highlights  
from Moriond

### Monday, March 24

THERE WILL BE NO  
PARTICLE ASTROPHYSICS  
SEMINAR THIS WEEK

3:30 p.m.

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

4 p.m.

All Experimenters' Meeting -  
Curia II

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

## Weather

## Feature

### Lunch room science



A Lichtenberg figure. AD physicist Todd Johnson created this work of art during a lunchtime demonstration.

It was lunchtime in the Fermilab cafeteria, a place usually packed with staff and visitors eating, chatting and generally taking a break from their day. But on Wednesday, one table drew a crowd. AD physicist Todd Johnson struck a piece of acrylic, letting loose the frustrated electrons waiting inside. After a bang and a small flash, the previously empty acrylic block contained a gorgeous branching pattern. Watch Johnson's demonstration in a 2 1/2-minute [YouTube video](#) to learn how Lichtenberg figures are created.

## In Memoriam

### In Memoriam: Herb Kachele



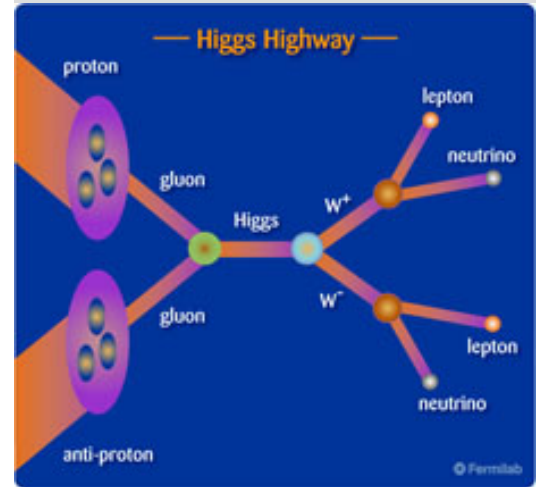
Herb "Schatzie"  
Kachele

Retired Fermilab employee Herb Kachele, better known as "Schatzie," died earlier this month. Kachele, who has ID number 3898 while at the laboratory, worked as a maintenance mechanic with FESS for more than 15 years, ending in February of 1979.

"Herb was a Fermilab original. He was known for his entrepreneurial spirit of selling (or attempting to sell) a Fermilab belt buckle to

## Special Result of the Week

### The Tevatron's Higgs highway

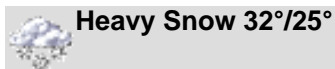


This figure illustrates one possibility for production of a Higgs boson and its subsequent decay at the Tevatron.

Nearly all physicists know about the undiscovered Higgs boson and most Fermilab staff are aware of the eagerness with which it is sought. But not many people know much about what happens behind the scenes as Fermilab physicists blaze a trail to find this elusive particle.

Results from a combined effort by the two Tevatron collider experiments, CDF and DZero, come very close to excluding a potential Higgs boson mass of  $160 \text{ GeV}/c^2$ . Those results, completed at the beginning of March, are summarized by the plot below.

CDF and DZero each have teams of physicists who focus solely on finding the Higgs boson. They know a lot about how it should fit into the Standard Model puzzle and that it gives elementary particles their masses. They know it should be produced predominantly by the fusion of two gluons, as shown in the illustration above. They also know the Higgs should immediately decay to the heaviest particles kinematically available. But they still need one piece of crucial information: the Higgs mass. Without it, researchers must search a wide range of potential masses and Higgs decay possibilities, each requiring its own dedicated analysis. Thankfully, they have a rough idea where to look. By combining information from all other pieces of the



Heavy Snow 32°/25°

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

[Current Security Status](#)

[Secon Level 3](#)

[Wilson Hall Cafe](#)

**Friday, March 21**

- New England clam chowder
- Black & blue cheese burger
- Mardi Gras jambalaya
- Smart cuisine: Dijon meatballs over noodles
- Bistro chicken & provolone panini
- Assorted pizza slices
- \*Carved top round of beef
- \*Carb Restricted Alternative**

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

**Wednesday, March 26**  
**Dinner**

- Roast pork calypso
- Fried plantain slices
- Black beans & rice
- Mango mousse w/coconut cookies

**Thursday, March 27**  
**Dinner**

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

[Archives](#)

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

[Info](#)

everyone he met," said friend and FESS employee Greg Gilbert. "He had the gift of gab."

[From ISTGW](#)

## EnVision: from data to discoveries

Visualization allows scientists to transform massive amounts of raw data into a visual format, helping researchers to explore data and fuel discoveries.

And now, thanks to EnVision, a grid-enabled visualization tool released late in 2007, creating interactive visualizations has never been easier.

Developed by the team at the Texas Advanced Computing Center, EnVision is a Web-based software tool that simplifies the tasks of data management, analysis and interpretation involved in visualization.

[Read more](#)

-- Aaron Dubrow, Texas Advanced Computing Center

[In the News](#)

## Durbin pushes for Fermilab funding

From *Kane County Chronicle*,  
March 21, 2008

A push to restore funding this year at Fermilab and similar facilities across the country is in the works.

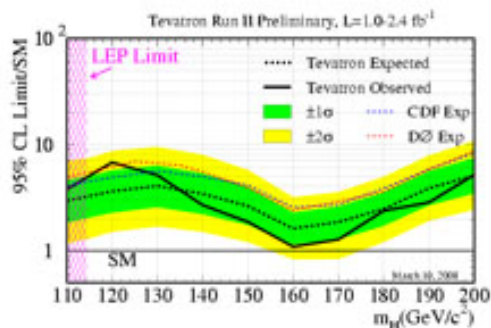
Sen. Dick Durbin, D-Ill., wrote a letter this week to the Senate's Appropriations Committee to ask for \$350 million in funding for laboratories across the country, including Batavia's Fermilab and Argonne National Laboratory near Darien.

The letter also had the support of several other senators from both parties.

Durbin and the other lawmakers want \$350 million in a supplemental appropriations bill that would bring the funds as soon as this spring. Laboratories were "shortchanged" last year, losing money for this fiscal year, Durbin said.

If the bill is passed, Fermilab and Argonne would receive about \$56 million to "put projects back on track," Durbin said.

Standard Model, physicists expect the Higgs boson, if it exists, to have a mass below 180 GeV/c<sup>2</sup>. Searches at previous experiments have already excluded a Higgs boson with a mass below 114.4 GeV/c<sup>2</sup>.



The combined Tevatron limits on the rate of production for Higgs bosons are presented as a ratio to the Standard Model prediction; a ratio of 1.0 would mean that the search is sensitive to a Higgs boson produced at the predicted rate. Though the observed values fluctuate around the limits, found in the no-signal scenario, the collaborations observed no significant excess in the mass range that they searched.

[Read more](#)

[Result of the Week Archive](#)

[Announcements](#)

[Have a safe day!](#)

**IDES representative on site Friday**

A representative from Illinois Department of Employment Security will be on site in the Wilson Hall One West conference room on Fridays through the end of March. Due to the increase in attendance, two larger group meetings will occur at 11 a.m. and noon. If you are beginning your furlough week, please fill out a benefit application on site. You may also apply for benefits [online](#) or at your local IDES office the week you are on furlough. Please contact [Heather Sidman](#) x3326 or [Jeannelle Smith](#) x4367 with questions.

**SciTech summer camps**

The SciTech hands-on museum offers Science Adventure Camps for children ages 6+. Week-long camps begin on June 23 and run from 9 a.m. to 3 p.m. Fees range from \$200 to \$225 per week. Before- and after-care is available for an extra fee. For more information, visit the [SciTech Web site](#).

**Javascript course deadline Monday**

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)

“Basic research at these laboratories is critical,” he said.

Last year’s funding crunch caused the laboratories to put projects on hold and cut staff. Fermilab is expected to begin layoffs this summer.

Fermilab spokesman Kurt Riesselmann declined to comment on the prospect of the restored funding. He said employees were not lobbying for federal money because it paid their salaries.

The recently sworn-in Rep. Bill Foster, D-Geneva, was a scientist at Fermilab.

Foster’s spokesman, Tom Bowen, said Foster was committed to restoring funding at Fermilab.

[Read more](#)

Enrollment for an intermediate/advanced Javascript: AJAX course will close Monday. This course is for middle-tier and back-end engineers with strong object-oriented experience, front-end developers, architects and systems analysts looking to improve or update their Web development skills. [Learn more and enroll.](#)

#### **Excel 2003 Intermediate**

An intermediate class on Excel 2003 is offered. Learn how to create templates, sort and filter data, import and export data, analyze data and work with Excel on the Web. [Learn more and enroll](#)

#### **Classifieds**

New [classified ads](#) have been posted on *Fermilab Today*.

#### **[Additional Activities](#)**