

## Furlough Information

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

### Thursday, April 24

9 a.m.- 6:30 p.m.

[SCRF meeting](#) - One North

THERE WILL BE NO PHYSICS AND DETECTOR SEMINAR THIS WEEK

9 a.m.- 10 p.m.

[Third Annual Low Emittance](#)

[Muon Collider Workshop](#) - One

West

2:30 p.m.

[Theoretical Physics Seminar](#) -

Curia II

Speaker: A. Martin, Yale University

Title: Probing Technivector Scenarios at the LHC

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

[Accelerator Physics and](#)

[Technology Seminar](#) - One

West

Speaker: K. McDonald,

Princeton University

Title: The MERIT Experiment:

A Proof-of-Principle

Demonstration of a Mercury

Jet Target for Megawatt Proton

Beams

### Friday, April 25

9 a.m.- 3:30 p.m.

[SCRF meeting](#) - One North

THERE WILL BE NO

PHYSICS AND DETECTOR

SEMINAR THIS WEEK

## Feature

### Fermilab meets future international safety standard

When it comes to safety, Fermilab leads the way. A team of auditors recommended Fermilab's registration under what will soon become an international safety standard.

The auditors with NSF International Strategic Registrations spent last week at Fermilab reviewing the laboratory's safety and health systems.

Achieving registration under Occupational Health and Safety Assessment Series 18001 - Safety and Health Management Systems meets a major commitment made by the Fermi Research Alliance, which manages Fermilab, in its contract with DOE.

"Congratulations to Fermilab on this significant accomplishment," said Joanna Livengood, DOE Fermi site office manager. "The laboratory clearly demonstrated its commitment to top-notch safety and health and joins companies internationally recognized for their excellence."

Taking a proactive stance on safety, Fermilab voluntarily applied for the OHSAS registration and subjected itself to the safety audit. Rafael Coll, ES&H, organized the [effort](#).

"OHSAS 18001 is quickly becoming the international safety standard," Coll said. "Fermilab is leading the way in registering under this new standard."

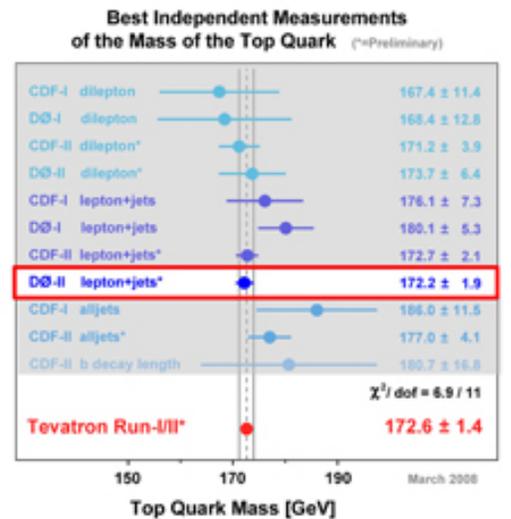
As part of the review, auditors interviewed employees about their safety practices and their knowledge of the Fermilab Safety Policy.

"The auditors praised Fermilab's S&H program," said Bill Griffing, head of the ES&H section at Fermilab. "They were most impressed by the openness and willingness of those they interviewed to engage in knowledgeable and frank discussions about worker safety. The unrehearsed nature of the responses convinced the auditors that we have a healthy safety culture committed to continuous improvement."

Fermilab can soon claim the distinction of meeting international standards for

## Fermilab Result of the Week

### A-Top the Standard Model



This figure contains the current best measurements of the top quark mass. DZero's new precision measurement, outlined in red, is the world's best top mass measurement.

Fermilab's Tevatron is the only place in the world capable of producing top quarks. Since its discovery in 1995, the top quark has been a crown jewel of Fermilab's physics program and the subject of intensive study. In particular, measurements of the top quark's mass have been continuously refined so that scientists know the value to the 1 percent level. Outside observers may naturally ask why this single value is so important now that we know the top quark exists. This question, one that physicists at the DZero experiment are keen to answer, takes us deep into the unknown of our universe.

The top quark, the heaviest quark, plays a special role in the Standard Model of elementary particles. For example, due to the strength of the interactions between the top quark, the Higgs boson and the W boson, the masses of the three particles are linked. As scientists better understand this relationship, they can perform more stringent tests of the Standard Model. Refinements of the top and W boson mass measurements provide a means to learn more about the yet undiscovered Higgs boson. Though the top quark was the last quark discovered, its mass has been measured more precisely than that of any other quark. Therefore, precision top

**9 a.m.- 1 p.m.**

[Third Annual Low Emittance Muon Collider Workshop](#) - One West

West

**3:30 p.m.**

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

**4 p.m.**

[Joint Experimental-Theoretical Physics Seminar](#) - One West

Speaker: K. Yorita, University of Chicago

Title: Search for the SM Higgs with  $H \rightarrow \tau \tau$  Decay Mode at CDF

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

**Weather**



Sunny 77°/61°

[Extended Forecast](#)

[Weather at Fermilab](#)

**Current Security Status**

[Secon Level 3](#)

**Wilson Hall Cafe**

**Thursday, April 24**

- Santa Fe black bean
- Sloppy Joe
- Chicken cordon blue
- Smart cuisine: spinach enchiladas
- Baked ham & Swiss on a ciabatta roll
- Crispy fried chicken ranch salad
- \*Carb restricted alternative*

[Wilson Hall Cafe menu](#)

**Chez Leon**

environmental management as well as safety and health management. Last fall, Fermilab celebrated the international recognition of the laboratory's environmental management practices when the laboratory achieved the [ISO 14001 registration](#).

-- Kurt Riesselmann

**Photo of the Day**

**Teen robot battles attract lunchtime interest**



Members of the Batavia Robotics club attract attention as they demonstrate the skills of their homemade robots in the Wilson Hall atrium Wednesday. The robots were built for a national competition and manipulated by two remote controls each. For more information on the event, see [Wednesday's issue](#) of Fermilab Today.

**Milestone**

**Tita Jensen's last call**



Tita Jensen

Tita Jensen didn't smile before the age of 3 and would hide from visitors. While she still claims shyness, Fermilab employees might argue that.

She circulates among the tables of Chez Leon offering small talk and remembering people's favorite dishes. She treats everyone like family from graduate students to dignitaries. To add joviality and a touch of home, she dresses in costume at themed meals and holiday celebrations, including Carnival, her favorite event, when roast suckling pig is served.

"She and her staff performed miracles feeding

mass measurements provide invaluable input into the theories of all quark interactions. As these theories mature, the potential for finding new physics grows. Scientists will need a precision top mass measurement to exploit potential discoveries and measurements at the LHC.

The physicists studying the top quark mass at DZero have recently announced the world's most precise measurement. In top pair decays, including one lepton in 2.1 inverse femtobarns of data, they measure the top mass to be  $172.2 \pm 1.1$  (stat)  $\pm 1.6$  (syst) GeV/c<sup>2</sup>. The uncertainty of this result is 1.1 percent and is principal in driving the world-average top mass uncertainty to 0.8 percent. As the Tevatron continues to collect data, DZero's drive to precisely measure the top quark mass will surely help us learn more than ever before about our universe.



A group of DZero collaborators from Fermilab made primary contributions to this analysis.



DZero's Level 1 calorimeter trigger helps select events with jets, electrons, photons or taus. The dedicated group of experts keep it operating at high efficiency and are essential for any analysis that selects jets or electrons, such as top quark and Higgs boson analyses.

[Result of the Week Archive](#)

**Accelerator Update**

**Thursday, April 24****Dinner**

- Closed

**Wednesday, April 30****Lunch**

- Chipotle shrimp on corn cakes  
- Tropical fruit platter

[Chez Leon menu](#)

Call x4598 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)

huge numbers of users, conference attendees and special guests because no one wanted to miss dinner with Tita," said Adrienne Kolb, Fermilab archivist. "Tita definitely helped put Fermilab on the map."

April 30, Jensen hangs up her apron to see the parts of the world that didn't flow through her dining room.

"I have had the ideal job," Jensen said. "I have been able to experiment with foods and menus throughout the life of Chez Leon because people of the Fermilab community have been open to new culinary experiences." Inspiration for her menus has come from cook books, newspapers and restaurant visits. Occasionally meals have had their origin in foods from her native Santo Domingo.

At Alvin Tollestrup's suggestion, Leon Lederman gave Tita the go-ahead to start the restaurant in the Users' Center, which already had a fully equipped kitchen dating from the time when the original Fermilab cafeteria was located there. When it became clear that this culinary experiment was successful, the current dining room adjacent to the kitchen was built.

"She is the hardest working person I know," said Kathie Lootens, head baker. "She can take anything and make it good."

After 29 years, Tita still gets a rush of joy every time she opens the restaurant, and she hopes her staff will keep up the tradition.

"I love the people. I have a great staff," she said.

-- Tona Kunz

**In the News****Efforts to increase current year funding for science**

From *AIP FYI*, April 22, 2008

Efforts continue to increase current year funding for the National Science Foundation and the Department of Energy's Office of Science. On April 17, thirty-one Democratic and Republican representatives sent a letter to the senior House leaders and the senior leadership of the House Appropriations Committee. "We are writing in support of including funding in the FY2008 supplemental appropriations bill for federal research and science, technology, engineering, and mathematics (STEM) education that will help

**April 21-23**

- Three stores provided 34 hours and 42 minute of luminosity
- A fourth store was established, but quenched immediately
- Pbar switches to rapid transfers

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

**Announcements****Have a safe day!****Computer programming course April 24**

"C++ Templates and Template Metaprogramming," the third course in the current series of "Selected Topics in Computer Programming," will occur on Thursday, April 24. Aimed at programmers with C++ experience, it will deal in depth with issues related to function and class templates in modern C++ programs. Attendees will learn techniques of template-based programming and metaprogramming, as well as related new techniques from the next C++ standard. Participants will receive TRAIN credit for the free course. Course registration is now [open](#). Future courses will occur at two-week intervals.

**NALWO Spring Tea May 5**

Members of the Fermi National Accelerator Laboratory Women's Organization will hold their Spring Tea on May 5 from 11 a.m. - 1 p.m. Barbara Oddone will host the event in her home, Site #29, located just inside the Wilson Street gate. Photo identification is necessary to enter the laboratory. When entering at Wilson Street, turn right at the driveway just beyond the gate. If possible, please bring a favorite dessert or appetizer from your home country. For additional information, contact [Susan Kayser](#), [Margie Nagaitsev](#) or the [Housing Office](#) at (630) 840-3777.

**International Folk Dancing April 24**

International Folk Dancing returns to Kuhn Barn this week, Thursday, April 24. Dancing begins at 7:30 p.m. with teaching and children's dances followed by request dancing. Newcomers are welcome. You do not need to come with a partner. Information at (630) 584-0825 or (630) 840-8194 or [folkdance@fnal.gov](mailto:folkdance@fnal.gov).

**Additional Activities**

stimulate good jobs and economic growth and protect U.S. competitiveness," this letter states, which later concludes: "We recognize that you are preparing a wartime supplemental, and that you will face intense pressure to fund competing priorities. However, we would not be making this request if we did not believe the situation at our nation's laboratories and research universities and the need to improve STEM education warranted immediate attention and supplemental resources."

[Read more](#)