

## Calendar

[Have a safe day!](#)

Friday, Nov. 12  
2 p.m.

[LHC Physics Center: Topic of the Week Seminar](#) -

Sunrise, WH-11SE  
Speaker: Jesse Thaler,  
Massachusetts Institute of  
Technology

Title: Goldstini at the LHC  
3:30 p.m.

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
4 p.m.

[Joint Experimental-Theoretical Physics Seminar](#)

- One West

Speaker: Jonathan Hays,  
Imperial College London  
Title: Recent Results in  
SUSY Higgs Searches at  
DZero

8 p.m.

[Fermilab Lecture Series](#) -

Auditorium

Tickets: \$7

Speaker: Dr. Neil  
Gershenfeld, Massachusetts  
Institute of Technology

Title: [How to Make \(Almost\) Anything](#)

Monday, Nov. 15

10:30 a.m.

[Research Techniques Seminar](#) - Curia II

Speaker: Francesca Nessi-  
Tedaldi, ETH-Zurich

Title: Results on Scintillating  
Crystals Exposed to High  
Hadron Fluences

2:30 p.m.

[Particle Astrophysics Seminar](#) - One West

Speaker: Alyson Brooks,  
California Institute of  
Technology

Title: The Role of Gas in the  
Evolution of Disk Galaxies  
3:30 p.m.

## Special Announcement

## Voluntary Separation Offer information and Q&amp;A

On Thursday, Nov. 11, Fermilab Director Pier Oddone addressed employees in an all-hands meeting to present information about a Voluntary Separation Offer. The offer, which went out yesterday via e-mail to a subset of employees at the laboratory, will help to bring Fermilab operations into balance with the resources expected for the FY2011 fiscal year.

Watch an archived video of the all-hands meeting [here](#)

Below are a few questions and answers about the VSO. Visit the [VSO website](#) to read more comprehensive information and additional questions and answers, or to submit a question.

Q. My department has openings for which we are interviewing candidates. Might those openings be "taken away?"

A. There are no current plans to cancel job openings. We need to keep the lab running, and we need to shape our programs with a certain set of skills.

Q. If an employee is out on medical leave during the VSO notification period, how will they receive the VSO?

A. The VSO e-mail message was sent with an e-mail "read receipt." If we do not receive the receipt or a response e-mail stating the employee received the information, we will send an e-mail asking the person if they received the message. If we still do not receive a reply, then we will investigate and mail a hard copy. If an employee is off work and receiving long-term disability benefits, they are not eligible for the VSO.

View more [questions and answers](#)

## Feature

## Result of the Month

## On top of the world



CMS physicists searching for top quarks have managed to ascend their first summit.

Since 1995, the Fermilab Tevatron has been the only place where scientists can create and study top quarks. With today's result, the CMS experiment has joined that most exclusive of clubs. The CMS collaboration is thrilled to announce it has submitted for publication its first measurement of the top quark production probability.

Top quarks are the heaviest subatomic particles known to man. They were co-discovered here at Fermilab by the DZero and CDF collaborations. During the last 15 years, physicists have made many painstaking measurements that identify the top quark's properties. However, it will not be long before the LHC experiments gather as many top quarks as the Tevatron has. The reason is that the higher energy of the LHC means that the probability to make a top quark is more than 20 times higher than at the Tevatron, for an identical amount of delivered beam. Since the LHC turned on in March, it has created about 15 percent as many top quarks as have been observed at the Tevatron since the top quark's discovery. Given how rapidly the LHC beam brightness has grown, most of these were produced in the last few weeks of running. The LHC recently concluded its first proton-proton run and is now colliding heavy ions. Proton-proton collisions will

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
4 p.m.  
All Experimenters' Meeting -  
Curia II  
Special Topic: TeamCenter  
for Lab-wide Engineering  
Document Management

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

[Upcoming conferences](#)

## Campaigns

[Take Five](#)

[Tune IT Up](#)

## Weather



Slight chance of  
showers  
62°/46°

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

## Current Security Status

[Secur Level 3](#)

## Wilson Hall Cafe

Friday, Nov. 12

- Breakfast: Croissant sandwich
- Old-fashioned ham & bean soup
- Philly-style chicken
- Chicken pot pie
- \*Baked fish over rice
- Roasted veggie and provolone panini
- Assorted sliced pizza
- Carved baked ham

*\*Carb restricted alternative*

[Wilson Hall Cafe Menu](#)

## Chez Leon

Wednesday, Nov. 17  
Lunch

- Chicken breast stuffed w/

## Fermilab takes fun to DC



Jerry Zimmerman performs a cryogenics demonstration during the U.S. Science and Engineering Festival on the Mall in Washington, D.C.

A group of preteen girls entered the Fermilab exhibit tent on the Washington, D.C. Mall and pushed forward to stare at the numbers whizzing by on an electronic counter. 6,000. 6,015. Their foreheads crinkled.

Adrian Mead, a high school senior, spoke directly to the girls.

"It's counting the number of cosmic ray muons that go through the two detectors in a short time," he said, pointing to a laptop-sized block covered in electrical tape with PVC pipe and wires sticking out of it. He marked off a space with his fingers that is smaller than a postage stamp. "There are thousands going through an area like this right now."

The girls leaned forward to get a closer look.

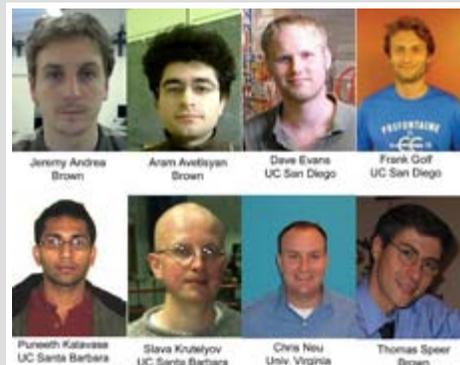
Interactivity — and often an air of mystery — marked most of the more than 1,500 exhibits and 75 stage shows that took over the National Mall in late October for the first [U.S. Science and Engineering Festival](#). Fermilab and 350 of the nation's leading science and engineering organizations joined together in the hopes of engaging the nation in the wonders of science and inspiring youth to consider scientific careers. To meet the needs of a competitive global economy, science and engineering jobs in the U.S. have grown at twice the rate of the American workforce as a whole, reported the National Science Board.

Mead plans to pursue a career in mathematics, though he said that he's really attracted to the gee-whiz-type facts that populate particle physics. He told the girls that the invisible muon particles the detector counts — cascading remnants of the energy of the sun — are all around them. He also told them that his friends in

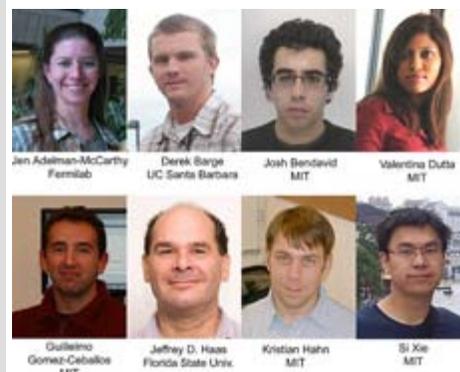
start up again in the early spring, and we expect the number of top quarks observed by LHC experiments to surpass in 2011 the current CDF and DZero top quark count.

Today's [measurement](#) describes events in which top quarks and top antiquarks are produced in pairs. Both of these particles decay into a bottom quark and a W boson. In order to simplify the analysis, CMS physicists only considered events in which the W bosons decayed into a lepton (muon or electron) and a neutrino. So the types of events that were studied included two bottom quark [jets](#), two leptons and missing energy from the unobserved escaping neutrinos. The measurement, which used less than 10 percent of the data recorded so far, was in good agreement with Standard Model predictions.

--Don Lincoln



These physicists played important roles in achieving this first CMS top quark publication.



After the construction of the detector and collection of data, one of the most fundamentally important tasks necessary for a successful experiment is the prompt reconstruction of the data and generation of simulated data. These individuals are playing a pivotal role in ensuring that CMS data is ready for subsequent analysis.

Photo of the Day

Fun at Sauk Circle

sundried tomatoes & goat cheese w/ shallot thyme sauce

- Orzo
- Sautéed spinach
- Italian cream cake

Thursday, Nov. 18  
Dinner

- Mushroom duxelle
- Duck breast w/ blackberry sauce
- Brussels sprouts
- Panna cotta w/ cranberry wine sauce

#### [Chez Leon Menu](#)

Call x3524 to make your reservation.

## Archives

### [Fermilab Today](#)

[Director's Corner](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

[User University Profiles](#)

[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)

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his Oakton High School science class made the detector to make the particles visible to the computer. He held off on telling them billions pass through their body each second. "I didn't want to make them cry," he said.

[Read more](#)

## Special Announcement

### Make something FABulous at Fab Lab presentation today

Fermilab's [Public Lecture Series](#) will host Fab Lab demonstrations in the Wilson Hall atrium today from 1-8 p.m. At 8 p.m., Neil Gershenfeld, director of MIT's Center for Bits and Atoms, will give a lecture, "How to Make (Almost) Anything." Tickets to the lecture are \$7; the demonstrations are free of charge.

[More information](#)

## In the News

### Fermilab offers buyouts, hopes to cut 50 workers

From *Beacon News*, Nov. 11, 2010

Budget woes are once again affecting the nation's premier particle physics lab, Fermi National Accelerator Laboratory.

On Thursday, Fermilab Director Pier Oddone, speaking to a packed house at Wilson Hall, announced to his staff that the lab would be offering incentives to some employees in hopes of reducing its work force by at least 50. The reason, Oddone said, is the ongoing question of the 2011 federal budget, and how Fermilab — and science in general — will fit in.

Fermilab is funded by the U.S. Department of Energy. Oddone said that even without any cuts by Congress President Barack Obama's 2011 budget request for the Energy Department would leave Fermilab in a bind. Lab officials have run the scenarios, Oddone said, and in every one they come up short.

The buyout offer was made to roughly 600 employees, about one-third of Fermilab's staff. Oddone said only those employees whose duties could be covered by the remaining staff were considered.

Part of Oddone's distress comes from the

## playground



Children from Fermilab's Children's Center romp on new playground equipment on Sauk Circle. The equipment was installed on Oct. 30.

## Announcements

### Latest Announcements

[School's out day camp - Nov. 22-23](#)

[Tango at Fermilab through Dec. 1](#)

[Book Fair Nov. 17 & 18](#)

[Cisco AnyConnect VPN client will be unavailable today intermittently](#)

[Fermilab winter volleyball league](#)

[Toastmasters - Nov. 18](#)

[Indian Creek Road closed until 3:30 pm Thursday](#)

[Help ES&H: take commuting and travel survey](#)

[Annual enrollment: deadline Nov. 22](#)

[Free CERN LHC book](#)

[Bullying: It's everyone's problem - Nov. 18](#)

[Nov. 22 deadline for The University of Chicago Tuition Remission program](#)

[Pedestrian safety awareness for families](#)

[Pedestrian safety at crosswalks](#)

[Accelerate to a Healthy Lifestyle program through Dec. 31](#)

[Chicago Blackhawks November discount tickets](#)

[Submit an announcement](#)

high probability that the lame duck Congress will not pass a full budget by Dec. 3 and will instead approve another continuing resolution. This would leave the 2011 budget in the hands of the new Congress, one that would not include U.S. Rep. Bill Foster, D-Batavia, a former Fermilab scientist.

[Read more](#)

Classifieds

Find new [classified ads](#) on *Fermilab Today*.