

## Calendar

### [Have a safe day!](#)

Monday, May 4

10:30 a.m.

Research Techniques Seminar  
Curia II

Speaker: David Nygren,  
Lawrence Berkeley National  
Laboratory/ Stockholm  
University

Title: Xenon Gas TPCs for 0- $\nu$   
 $\beta\beta$  and WIMP Searches:  
Recent Developments and  
Prospects

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

Special Topics: 3.9 GHz  
Cryomodule Shipment to  
DESY; LHC/CMS Report

Tuesday, May 5

2:30 p.m.

[Special Theoretical Physics](#)

[Seminar](#) - Curia II (NOTE  
DATE and TIME)

Speaker: Sven-Olaf Moch,  
DESY Zeuthen

Title: Top Quark Production at  
Tevatron and LHC

3:30 p.m.

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

THERE WILL BE NO  
ACCELERATOR PHYSICS  
AND TECHNOLOGY  
SEMINAR TODAY

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

## Weather

## Milestone

### Fermilab's superconducting cavity program moves forward



Third harmonic accelerating module team members Tug Arkan, Chuck Grimm and Jeff Wittenkeller stand in front of the completed, packed and ready to ship 3.9 GHz cryomodule.

Superconducting cavity development at Fermilab recently reached a major milestone.

Fermilab scientists and engineers shipped their first successfully completed and tested 3.9 GHz superconducting module to DESY on Friday, April 24.

The module, which consisted of four superconducting cavities and associated infrastructure arrived safely on Tuesday, April 28. It will become part of the German laboratory's FLASH free-electron laser.

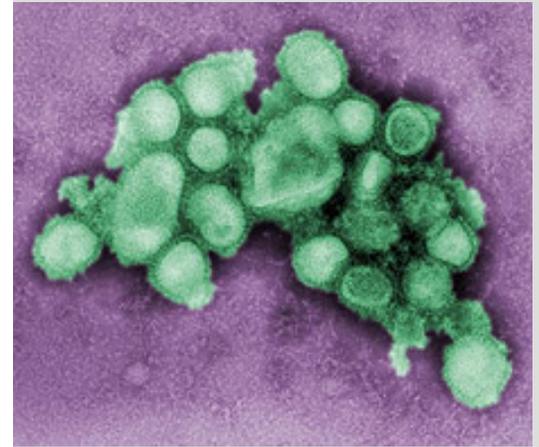
Fermilab scientists Helen Edwards and Elvin Harms, leaders of the effort at Fermilab, and TD engineer Chuck Grimm, witnessed the module's arrival and carried out initial checkout. During the next few weeks, other Fermilab scientists, engineers and technicians will be at DESY to check the cavity's systems, alignment and instrumentation before cooling down the module for testing this fall at DESY's Cryomodule Test Bed. Installation in FLASH is expected in early 2010.

"By completing this cavity successfully, Fermilab was able to demonstrate that it can be a key player in developing SRF cavities," said Elvin Harms, an Accelerator Division engineering physicist.

The successful completion and test also marks a milestone for the International Linear Collider, a proposed electron-positron collider

## ES&H Tips of the Week - Health

### H1N1: Swine flu's new name



Negative stain EM image of the swine influenza A/CA/4/09. Image courtesy of C. S. Goldsmith and A. Balish, CDCM.

It's been at least two weeks since the sentinel cases of swine flu in Mexico emerged. Scientists now prefer to reference the virus as its scientific name: H1N1.

As each day passes, the medical community has a better picture of the H1N1 virus' behavior. The fact that this particular virus is a "type A" means it does have the potential to spread rapidly. The newness of the virus means that many will not have immunity from prior year's infections or vaccinations. This all can sound very frightening. However, we have seen seemingly menacing viruses turn docile before, including the 1976 "swine flu" strain. This virus started with a bang, killing a healthy 19-year-old recruit soldier at Fort Dix in New Jersey. There were dire predictions of a worldwide crisis at that time. Fortunately, the virus changed over time and left with a whimper.

So far we've seen deaths from this current virus in Mexico and in a 2-year-old who likely contracted the illness in Mexico but succumbed to the illness or its complications while in Texas. We've seen a relatively slow spread of the virus. Someone infected with common seasonal flu strains typically infects two people, and so far we have not seen this type of doubling effect with the H1N1 strain.

The World Health Organization and the Centers for Disease Control have raised the

 Sunny  
70°/46°

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

[Current Security Status](#)

[Secou Level 3](#)

[Wilson Hall Cafe](#)

Monday, May 4

- Minestrone
- Patty melt
- Baked chicken enchiladas
- Herbed pot roast
- Chicken melt
- Assorted sliced pizza
- Szechwan green bean w/ chicken

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Wednesday, May 6

- Lunch
- Smoky bacon and blue cheese
  - Chicken salad pitas
  - Apple walnut salad
  - Lemon blueberry pound cake

Thursday, May 7

- Dinner
- Goat cheese salad w/ hazelnut dressing
  - Spiced stuffed pork roast w/ apple & thyme cream sauce
  - Mashed potatoes
  - Carrots & broccoli
  - Toffee pecan nutmeg cake

[Chez Leon Menu](#)

Call x3524 to make your reservation.

[Archives](#)

that could help to unlock the universe's deepest mysteries. The proposed ILC will comprise 16,000 superconducting accelerator cavities within vessels at near zero temperatures. The cavities used in the ILC would operate at 1.3 GHz, a different frequency than the 3.9 GHz cavities. However, Fermilab scientists found the experience assembling superconducting cavities valuable.

"This milestone demonstrates Fermilab's capability to produce superconducting RF cavities, which are the heart of the ILC," said Andy Hocker, associate scientist in TD.

Scientists from Fermilab, Argonne National Laboratory, and Jefferson National Laboratory carried out precise simulations for the 3.9 GHz cavities. The cavities were horizontally and vertically tested at Fermilab and then assembled into a cavity string at the MP9 Cryomodule Assembly Facility. The final assembly into a cryostat took place at the Industrial Center Building.

"We can all learn from each other, especially in developing new technologies," Harms said.

Harms hailed the successful test as a major step forward. "Fermilab is carving its niche," Harms said. "DESY has acknowledged us as world leaders in building 3.9 GHz systems."

-- *Andre Sulluchuco*

[Announcement](#)

## Celebrate Asian/Pacific American Heritage month

In recognition of Asian/Pacific American Heritage Month, Fermilab Diversity Council is celebrating the Asian/Pacific cultural heritage throughout the Fermilab community.

From noon-1 p.m. on May 12, Shekhar Mishra and Bakul Banerjee will give a Brown-Bag talk in One West. Mishra will present on Indian science and Banerjee will give a presentation titled "Values We Bring - A Perspective from the Indian Dispore." A cultural performance will take place from 12:15 p.m. - 1 p.m. on May 15 in Ramsey Auditorium.

On May 26, from noon - 1 p.m. in One North, NALWO, Fermilab's Women's Organization will host a Brown Bag program on Chinese Ceramics from 4800 BC to 1368 AD. An Asian Tea Festival & Art Display will take place on May 29.

An Asian Culture Quiz Contest will also take

alert to get planners thinking of measures to control this current flu should it take off. The influenza-A variety is a very changeable virus, so caution is warranted. Medical scientists know that our antiviral drugs kill the virus. The CDC feels it is quite feasible to add a fourth valence to this fall's seasonal flu vaccine to protect against H1N1.

The World Health Organization today will contemplate raising the alert level to pandemic, or level 6. This action releases necessary supplies to poorer countries and lends further monitoring resources to countries in the Southern Hemisphere that are entering their winter season. This is simply a reflection of the geographic spread of the virus and not the severity of the infection.

At Fermilab it is important that employees keep the Medical Office informed of illnesses resembling influenza. Anyone feeling ill should stay home. Curb the spread of the virus and prevent catching it cleaning surfaces and practicing thorough hand washing and coughing or sneezing in the direction of your elbow or sleeve. More information on the steps you can take in response to an influenza outbreak can be found at: <http://www.cdc.gov/h1n1flu/>

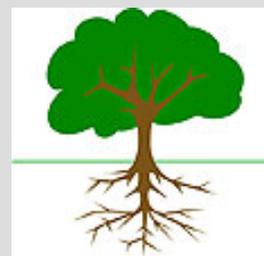
-- *Brian Svazas, MD*

[Special Announcement](#)

## Plant a tree tomorrow in honor of Earth and Arbor Days

Celebrate Earth Day and Arbor Day by planting a tree tomorrow, May 5. Join Fermilab Natural Areas and Roads and Grounds in their annual tree planting at 11:30 a. m. near the West

Wilson Street guard house. There are 84 trees and shrubs available for planting. A hot dog lunch will be available after the event for participants. Participants should plan to wear clothes and boots that they don't mind getting dirty. [Learn more](#)



[Plant a tree on May 5.](#)

[Accelerator Update](#)

[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)

Visit the Fermilab

[home page](#)

place throughout the month. Questions are posted on a billboard in the atrium and on a [Web site](#).

## In the News

## Scientists, lawmakers break ground on Ash River neutrino lab

From **Fox 21 News**, May 3, 2009

ASH RIVER, Minn. - A major science experiment that started several years ago in the Soudan Underground Mine is expanding north to Ash River near the Canadian border.

Physicists are studying tiny particles called neutrinos. A huge facility at Fermilab in Illinois sends out a beam of neutrinos, and the Soudan Lab catches them -- a half-mile underground.

University of Minnesota Professor Marvin Marshak said at Ash River, they'll follow up on what they've learned at the Soudan lab.

"Those experiments have raised new questions about the properties of ... neutrinos and this lab at Ash River is going to try to answer them," he said.

[Read more](#) and watch the video.

From *symmetrybreaking*

## The Daily Show on CERN



[The Daily Show visits CERN.](#)

*The Daily Show* visited CERN to unearth the truth behind the rumors that the world's largest and most sophisticated science experiment will suck the Earth into a black hole.

The half-hour cable program, hosted by Jon

April 29 - May 1

- Four stores provided ~43 hours of luminosity
- Pbar suffered transfer sequencer problems
- 5/1/09 - 4 p.m., four hour access into TeV A-E

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

## Announcements

### Latest Announcements

[Recreation department announces Club & League Fair drawing winners](#)

[Are you Fit to a T? May 27 event](#)

[Word 2007: New Features class offered May 5](#)

[Excel 2007: New Features class May 7](#)

[National Day of Prayer observance May 7](#)

[Best of Dance Chicago - Fermilab Arts Series - May 9](#)

[Argentine Tango classes through May 13](#)

[Rapid Hardware Prototyping and Industrial Control Application development seminar offered May 13](#)

[Coed softball season begins May 13](#)

[Angels & Demons Lecture Night: The Science Revealed - May 21](#)

[Deadline for The University of Chicago Tuition Remission Program - May 22](#)

[NALWO - Brown Bag Lunch - Chinese Pottery - May 26](#)

[Science adventures for children](#)

[Discounted Rates at Grand Geneva Resort, Lake Geneva, WI](#)

[Summer co-ed volleyball league begins June 1](#)

[Registration for Users' meeting is open](#)

Stewart, takes satirical aim at current news events, and has an almost fanatical American following, making it an Emmy and Peabody Award-winning series with 3.6 million total viewers at its peak.

“News” anchor John Oliver spent several days at the European particle physics laboratory this year learning about the Large Hadron Collider. In true, non-objective *Daily Show* form, he questioned whether the LHC is a doomsday machine or a tool to answer the most fundamental questions in the universe, including why the world has structure and isn't an a big blob of free-floating energy.

[Read more](#)

[Conflict Management and Negotiation Skills class June 3 and 10](#)

[Discount tickets to "1964"...Beatles tribute - June 6](#)

[Susan Werner - Singer/Songwriter Performs on Arts Series](#)

[SciTech summer camps](#)

[Additional Activities](#)

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[Submit an announcement](#)