

Furlough Information

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

Calendar

Reminder:

An IDES representative will be at a table in the southwest corner of the Wilson Hall atrium each Friday from 11 a. m. to 1:30 p.m. from today through March 28.

Friday, Feb. 22

10:00 a.m.

PPD/Neutrino Department Physics Seminar - Racetrack/WH-7XO

Speaker: A. Afanasev, Hampton University

Title: Radiative Corrections for Lepton Scattering

3:30 p.m.

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

4:00 p.m.

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

Speaker: B. Hoeneisen, Universidad San Francisco de Quito

Title: Measurement of CP Violation with B-Mesons at DZero

Saturday, Feb. 23

8:00 p.m.

[Fermilab Arts Series](#) -

Auditorium

The Wailin' Jennys

Tickets: Adults \$18/\$9

Monday, Feb. 25

2:30 p.m.

[Theoretical Astrophysics](#)

[Seminar](#) - Curia II

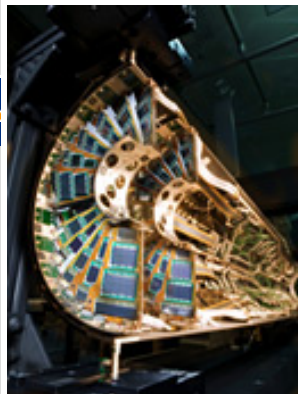
Speaker: Mark Vagins

University of California, Irvine

Title: GADZOOKS! A Potential Super-Kamiokande Upgrade

Feature

Nebraska physicists track particles with pixels



CMS Forward Pixel Detector

Physicist Aaron Dominguez puts on a lab coat, head cover and booties. He opens the door to a clean room at CERN and enters a sterile zone with silvery walls and glossy floors. The room contains multiple cables, computing equipment and four long, white wooden

boxes that house the Forward Pixel Detector, a key component of the CMS experiment.

Dominguez, along with his seven colleagues from the University of Nebraska, are readying the detector, nicknamed FPIX, for installation in the spring at the core of the five-story experiment at the LHC.

FPIX, comprises both ends of the cylindrical CMS detector and contains millions of tiny electronic sensors, or pixels, to track charged particles. FPIX can pinpoint particle locations to rectangular-shaped pixels comparable to the width of a strand of hair.

"The pixel detector is useful because its pixels are so small they can effectively be used to give you a precise three-dimensional point in space that the particle passed through," Dominguez explained.

If many of the pixels fail, FPIX will lose its accuracy. So, the Nebraska team created a system of electronics and computer boards to test the detector one piece at a time.

"Since we could not manually test each of the 18 million channels (of data from FPIX), we had to come up with a more sophisticated way to do it," Dominguez said.

Roughly 1,000 multiple-layered slabs, or plaquettes, make up the FPIX detector. Each plaquette contains 8,320 to 41,600 pixels.

In order to earn a passing grade from the

Special Announcement

SLAC Town Hall meeting

SLAC will host a Town Hall meeting today as part of the Particle Physics Project Prioritization Panel's visit to the laboratory to discuss a 10-year plan. The meeting is available for viewing on video stream at 6:30 p. m., Chicago time.

[View the meeting](#)

From ISTGW

Powering discoveries: Ranger set to fuel new era of scientific discovery

Researchers now have access to an unprecedented tool for extending knowledge: Ranger—the most powerful computing system in the world for open scientific research—entered full production on 4 February at the [Texas Advanced Computing Center](#) at the University of Texas at Austin, U.S.

Ranger's deployment marks the beginning of the Petascale Era—where systems will approach a thousand trillion floating point operations a second—and will greatly enhance the computing capacity of the [TeraGrid](#), becoming the largest HPC computing resource on the U.S-wide high performance computing grid. Ranger will offer more computer cycles for calculations than all other TeraGrid HPC systems combined.

[Read more](#)

Accelerator Update

Update author Bruce Worthel is on furlough. The update will return next week.

[Read the Early Bird Report](#)


[View the Tevatron Luminosity Charts](#)

Announcements

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

 **Mostly Sunny 25°/9°**

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

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Friday, Feb. 22

- New England clam chowder
 - Black & blue cheese burger
 - Mardi Gras jambalaya
 - Swedish meatballs
 - Bistro chicken & provolone panini
 - Assorted pizza slices
 - Carved top round of beef*
- *Carb Restricted Alternative**

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Feb. 27 Lunch

- Wild mushroom strudel
- Salad of field greens w/
tomatoes, cucumbers & onion
- Cold lemon soufflé

Thursday, Feb. 28 Dinner

- Sancocho w/pastetobos
- Roast suckling pigs
- Chayote guisado
- Rice & pigeon peas
- Flan & tropical fruit

[Chez Leon Menu](#)

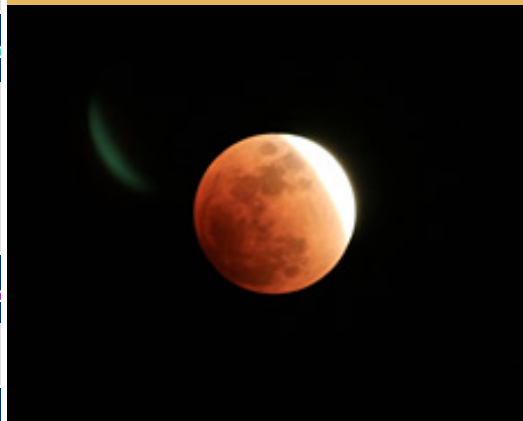
Call x4598 to make your
reservation.

Archives

Nebraska team, and a place in FPIX, the plaquettes had to pass several computer-administered tests done at Fermilab in close collaboration with Northwestern University and University of Milan.

-- *Katie McAlpine*

Photo of the Day



AD's Michael McGee submitted this photo of the lunar eclipse taken at about 10 p.m. Tuesday night. Reflection off the one-eighth of the moon that had not yet eclipsed creates the green arc.

In the News

P5 Meets at SLAC to discuss U.S. particle physics vision

From *SLAC today*,
Feb. 21, 2008

The Particle Physics Project Prioritization Panel (P5) meets at SLAC today through Saturday in the second of three cross-country meetings to aid in forming a new 10-year plan for U.S. particle physics.

By April, P5 will make a recommendation to the U.S. High Energy Physics Advisory Panel that takes into account the field's fluid nature and considers projects in different budget scenarios.

[Read more](#)

In the News

[Have a safe day!](#)

Memorial to honor NIU partners, friends

Memorial service for the victims of the Feb. 14 shooting at Northern Illinois University will take place at 7 p.m. Sunday, Feb. 24, at the NIU Convocation Center. Doors open at 5 p.m.



Village power outage scheduled

On Saturday, starting at 9 a.m., crews will shut off power to the Fermilab Village for up to three hours. With the power off, crews will replace a damaged insulator on the high-voltage electrical feed to the Village. If you have questions, contact the Housing Office at x3994.

Brown Bag Seminar on diabetes

The Wellness Works committee presents a Brown Bag Seminar on diabetes from noon to 1 p.m. Wednesday, Feb. 27, in One West. Betul Hatipoglu, assistant professor of medicine at the University of Illinois Medical Center at Chicago will speak on the latest advances in diabetes. Hatipoglu also serves as the medical director of the Pancreas and Islet Transplantation Program at the university.

Employee art show - applications due Feb. 25

"Hidden Talents: Fermilab Employee Art Show" will be on display, March 19 - May 14, 2008. Intent applications are due Feb. 25, and forms are available in the Art Gallery on the stand near Curia II or on the [Web](#).

FermiGrid classes starting Feb. 26

FermiGrid 201: Scripting and Running Grid Jobs course serves as an introductory course for grid computing.

[For more information or to enroll](#)

FermiGrid 202: Grid Storage Access course includes lab time.

[For more information or to enroll](#)

FermiGrid 101 "Brown Bag" seminar to be held on Thursday, March 6, from noon to 1 p.m. in Curia II.

[For more information](#)

Children's Summer Day Camp registration due

Registration forms for the onsite day camp for children of Fermilab employees are due by 5 p.m. Feb. 28. The camp for ages 7 through 12

Fermilab Today is online at:
www.fnal.gov/today/

Send comments and suggestions to:
today@fnal.gov

At the heart of the matter: The hunt for the God Particle

From *National Geographic*,
March 2008

If you were to dig a hole 300 feet straight down from the center of the charming French village of Crozet, you'd pop into a setting that calls to mind the subterranean lair of one of those James Bond villains. A garishly lit tunnel ten feet in diameter curves away into the distance, interrupted every few miles by lofty chambers crammed with heavy steel structures, cables, pipes, wires, magnets, tubes, shafts, catwalks, and enigmatic gizmos.

This technological netherworld is one very big scientific instrument, specifically, a particle accelerator-an atomic peashooter more powerful than any ever built. It's called the Large Hadron Collider, and its purpose is simple but ambitious: to crack the code of the physical world; to figure out what the universe is made of; in other words, to get to the very bottom of things.

[Read more](#)

consists of three separate three-week sessions: session I: June 16 - July 3, session II: July 7- July 25, session III: July 28 - August 15. The camp, held in the lower level of the Kuhn Barn in the village, runs from 7:30 a.m. to 5:30 p.m. You may choose any or all of the sessions. The fee for each day camp session is \$295 per camper. A \$125 deposit per session per camper must accompany the registration form. Registrations will be accepted at the Recreation Office, M.S. 126. Applications go into a lottery held on Feb. 29. An information booklet and registration form can be found on the Recreation Website.

Applications due for 2008 CERN-Fermilab Hadron Collider school

Applications for the 2008 CERN-Fermilab Hadron Collider Physics Summer School are due Feb. 29. The school takes place August 12-22, 2008, at Fermilab, and focuses on training advanced graduate students and young postdocs. Both theorists and experimentalists should apply. The list of lectures and lecturers has been posted at the [school Web site](#).
[more information](#).

Classifieds

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

[Additional Activities](#)