

## 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

### Friday, April 18

**11:30 a.m.**

Traffic Safety Brown Bag Seminar - One West  
Speaker: E. Barsotti, League of Illinois Bicyclists

Title: Bicycle Commuting – and Sharing the Road Tips for Both Cyclists and Motorists

**3:30 p.m.**

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

**4 p.m.**

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

Speaker: U. Heintz, Boston University

Title: Precision Top Measurements from DZero

**8 p.m.**

[Fermilab International Film Society](#) - Auditorium

Tickets: Adults \$5

Title: [Baisers volés \(Stolen Kisses\)](#)

### Saturday, April 19

**8 p.m.**

[Fermilab Arts Series](#) -

Auditorium

Tickets: \$29/\$15

Barrage: High Strung

### Monday, April 21

**2:30 p.m.**

[Particle Astrophysics Seminar](#)

- Curia II

Speaker: N. Padmanabhan,

## Feature

### QuarkNet teacher helps classroom detectors go global



Students from the northern Japanese town of Sendai watch Glenbrook South High School teacher and QuarkNet member Jeff Rylander demonstrate a cosmic-ray detector built for the classroom. *Image courtesy of Jeff Rylander*

Students in Sendai, Japan, spent four hours putting together panels and circuit boards shipped from Fermilab to create a cosmic-ray detector.

They caught and recorded leftover energy of stars, the sun and supernovas. Curiosity turned to excitement. A career in particle physics emerged as a possibility.

The next generation of accelerators will need today's high school students. "So we are trying to provide to those who may work on the next wave of experiments an interesting education about particle physics research," said Fermilab's Bob Peterson, who helped organize the March QuarkNet program.

Many U.S. schools use cosmic detectors in classrooms to teach about astrophysics and accelerator-based particle physics. Jeff Rylander built such a detector at Fermilab and uses it at Glenbrook South High School. He traveled to Japan to show other teachers and students how to make and incorporate a detector into their classrooms. "As teachers we are always looking for ways to make science real for kids, and this is one way to do a real experiment," Rylander said.

He explained that scientists at the Pierre Auger Observatory in Argentina and QuarkNet students both ask the same scientific

## From iSTGW

### Introducing Condor at RIT



The Condor team at RIT: from left, Bill Hoagland, Paul Mezzanini and Brent Strong. *Image courtesy of RIT*

Grid computing at the Rochester Institute of Technology, New York, is not a new initiative, but with the advancement of technology and recent additions to the resource pool, RIT is setting its sights on further expanding its grid presence and contributions.

The Condor computing infrastructure harnesses the power of idle computers across the RIT campus, and has been in use sporadically since 1999. It has recently gained a campus-wide foothold thanks to a pushstart from Research Computing at RIT.

The Condor network has expanded to over 1,000 processors among three flocks, with a goal of reaching 2,000 processors in the near future.

This computing network spans a multitude of operating systems and machine architectures, with installations on dedicated clusters, personal workstations and in a large number of computer laboratories on campus.

[Read more](#)

-- Brent Strong, Research Computing, RIT

## In the News

Lawrence Berkeley National Laboratory  
 Title: From Quasars to Dark Energy: Adventures with the Clustering of Luminous Red Galaxies

**3:30 p.m.**

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

**4 p.m.**

All Experimenters' Meeting -  
 Curia II

Special Topic: Tevatron Orbit  
 Stabilization

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

### Weather

 **Chance of showers**  
 70°/48°

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

### Current Security Status

[Secon Level 3](#)

### Wilson Hall Cafe

#### Friday, April 18

- 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, April 23

##### Lunch

- Chipotle shrimp on corn cakes
- Tropical fruit platter

#### Thursday, April 24

##### Dinner

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

questions and study the same type of cosmic rays, albeit Pierre Auger does it with better equipment. Classroom detectors perform the same function as the world's highest-energy particle detectors such as DZero and CDF at Fermilab and CMS at CERN.

The Japanese students took data, analyzed it and uploaded it to a central computer grid that shares data collected by students across the globe. Japanese students looked at data from Rylander's Illinois school district. "This models how high-energy physicists do their work in collaborations with members across the ocean," Rylander said.

NSF and DOE fund QuarkNet. The classroom outreach was held in conjunction with an ILC workshop.

-- Tona Kunz

### Photo of the Day

## COUPP builds bigger, better bubble chamber



Mike Crisler and his colleagues from the COUPP experiment search for dark matter particles. A prototype of their new bubble chamber, pictured here, is 30 times larger than the current bubble chamber operating in the MINOS tunnel.

### In the News

## Physicists renew claim, in new experiment, of detecting dark matter particles

From *New York Times*, April 17, 2008

A team of Italian and Chinese physicists on Wednesday renewed a controversial claim that they had detected the mysterious dark matter particles that astronomers say swaddle the galaxies in halos and direct the evolution of the universe.

The team, called Dama, from "DARk MATter," and led by Rita Bernabei of the University of Rome, has maintained since 2,000 that a yearly modulation in the rate of flashes in a detector nearly a mile underneath the Gran Sasso mountain in Italy is the result of the Earth's passage through a "wind" of dark matter particles as it goes around the Sun. Other groups of hunters of dark matter have just as consistently failed to find any evidence of the putative particles.

At a meeting in Venice, Dr. Bernabei reported that a new, bigger experiment named Dama/Libra had now observed the same modulation. "No other experiment whose result can be directly compared in a model-independent way is available so far," she said. The findings increase the chances that the modulation is real, outside dark matter experts say.

[Read more](#)

### Announcements

#### Have a safe day!

#### Brown Bag Seminar - Sharing the Road

A Brown Bag Seminar titled "Bicycle Commuting and Sharing the Road: Tips for both Cyclists and Motorists," will take place 11:30 a.m.-12:15 p.m. Friday, April 18, in One West. Ed Barsotti, executive director for the League of Illinois Bicyclists, will present information for cyclists and motorists about sharing the road and new laws for 2008. A discussion will focus on bicycle commuting and issues related to Fermilab employees. Barsotti will provide maps and safety information. A door-prize drawing will also take place.

#### Deadline for 2008 Tollestrup Award nominations extended to Friday

The Tollestrup Award Committee will accept nominations for the 2008 Tollestrup Award for postdoctoral research through today, Friday,

**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)

## John A. Wheeler, physicist who coined the term 'black hole,' is dead at 96

From *New York Times*, April 14, 2008

John A. Wheeler, a visionary physicist and teacher who helped invent the theory of nuclear fission, gave black holes their name and argued about the nature of reality with Albert Einstein and Niels Bohr, died Sunday morning at his home in Hightstown, N.J. He was 96.

The cause was pneumonia, said his daughter Alison Wheeler Lahnston.

Dr. Wheeler was a young, impressionable professor in 1939 when Bohr, the Danish physicist and his mentor, arrived in the United States aboard a ship from Denmark and confided to him that German scientists had succeeded in splitting uranium atoms. Within a few weeks, he and Bohr had sketched out a theory of how nuclear fission worked. Bohr had intended to spend the time arguing with Einstein about quantum theory, but "he spent more time talking to me than to Einstein," Dr. Wheeler later recalled.

[Read more](#)

Read [a remembrance](#) by Wheeler's former student, David Holz.

April 18. The original date was publicized as April 15, but the e-mail address to submit materials was incorrect. Submit nominations and materials to [usersoffice@fnal.gov](mailto:usersoffice@fnal.gov).

### Fermilab Folk Club barn dance Sunday

The Fermilab Folk Club will host a barn dance on Sunday, April 20, at 2 p.m. with music by Fred & Joe and calling by Lynn Garren. [More information](#)

### Blood drive April 22, 23

Mark your calendars. Heartland Blood Centers will conduct a Fermilab Blood Drive on April 22 and 23 from 8 a.m. to 2 p.m. in the Wilson Hall Ground Floor NE Training Room. Schedule appointments on the [Web](#) or call Diana at x3771 or Margie at x5680. More information available [here](#).

### 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.

### Classifieds

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

### [Additional Activities](#)