

## Calendar

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

Wednesday, Oct. 7  
11 a.m.

[FermiLINK Q&A session](#) - One North

3:30 p.m.  
DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
THERE WILL BE NO  
FERMILAB COLLOQUIUM  
THIS WEEK

Thursday, Oct. 8  
2:30 p.m.

[Theoretical Physics Seminar](#) - Theory Conference Room WH-3NE

Speaker: Jesse Thaler, Lawrence Berkeley National Laboratory

Title: Cosmic Signals from the Hidden Sector

3:30 p.m.  
DIRECTOR'S COFFEE BREAK  
2nd Flr X-Over  
4 p.m.

[Accelerator Physics and Technology Seminar](#) - One West

Speaker: Luisa Chiesa, Tufts University

Title: Superconducting Magnets for Fusion Application

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

## Campaigns

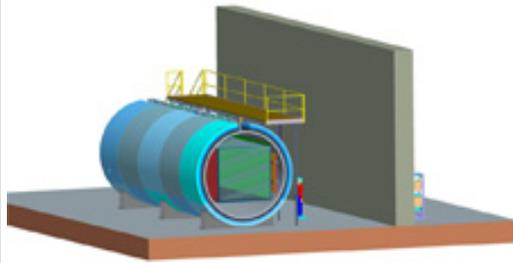
### [Take Five](#)

### [Tune IT Up](#)

## Weather

## Feature

### MicroBooNE receives CD-0



The MicroBooNE experiment will use a time-projection chamber filled with about 100 tons of liquid argon to look for anomalies in low-energy neutrino interactions.

Fermilab has moved a step closer to constructing a new neutrino experiment. The Department of Energy has given Critical Decision-0 approval to a new booster neutrino experiment called MicroBooNE.

The experiment will look for potential anomalies in low-energy neutrino interactions, which were [first reported](#) by the MiniBooNE experiment at Fermilab in 2007. MicroBooNE will use the same neutrino beam that traverses the MiniBooNE detector and explore the behavior of muon neutrinos made by a proton beam from the Booster accelerator at Fermilab.

The CD-0 approval establishes DOE mission need for the MicroBooNE experiment. The MicroBooNE collaboration now will develop detailed engineering plans for further DOE review and determine the final cost of the experiment, which will be less than \$20 million. Scientists hope to receive CD-1, 2 and 3 approvals before the end of 2010 to begin the construction of the experiment as soon as possible. About 60 scientists from 13 institutions work on the experiment.

The MiniBooNE experiment, which still takes data, uses light-sensitive sensors and a tank filled with more than 800 tons of highly transparent mineral oil to catch neutrinos. In contrast, MicroBooNE will feature the largest liquid-argon time projection chamber ever built in the United States. A time projection chamber is a particle detector that recreates with beautiful precision the three dimensional trajectory of a charged particle produced in a particle collision. MicroBooNE's TPC will hold about 100 tons of liquid argon cooled to minus 187 degrees Celsius. The TPC will be 12

## From FESS

### Reflecting on a season of success

*Randy Ortgiesen, head of the Facilities Engineering Services Section, wrote this week's column.*

Well, it's that time of year again when I spend quite a bit of time in various sections of timber across northern Illinois. Fall has become a cherished season for me and my family for many reasons. The season offers a lot of quiet time and a unique opportunity to clear one's mind and reflect.



Randy Ortgiesen

This past weekend, with the before-dawn chirp of the cardinal and the just-after-dawn tapping of the nuthatch as background, I thought about what our laboratory has just accomplished by successfully getting back to business after a multi-month accelerator shutdown. I really mean it: that's what I was thinking about. Maybe it was because there won't be too many more Tevatron shutdowns. Or maybe it was admiration for the way the laboratory always, always comes together to plan, estimate, find resources, work long hours and weekends, maintain safety, adjust and execute on time, while making it look easy, even though we all know otherwise. All that was amazing, but this time it was actually all the other critical things we accomplished in parallel that captured my thoughts.

Roughly simultaneously with the shutdown, the laboratory accomplished a weeklong audit of our Integrated Quality Assurance program, launched the Cyber Security Tune IT Up campaign, completed multiple DOE reviews including a construction readiness review of the NOVA project, accomplished many milestones for the American Recovery and Reinvestment Act projects, finished time-sensitive MINU construction at the Main Injector and much more. Many of these critical activities involved the same people responsible for the accelerator maintenance shutdown.



Mostly sunny  
60°/44°

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

[Current Security Status](#)

[Secon Level 3](#)

[Wilson Hall Cafe](#)

Wednesday, Oct. 7  
- English muffin sandwich  
- Portobello harvest grain  
- Santa Fe chicken quesadilla  
- Hoisin chicken  
- Parmesan fish  
- Cuban panini  
- Assorted slices of pizza  
- Pesto shrimp linguini with leeks and tomatoes

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Wednesday, Oct. 7  
Lunch  
- White bean rajas soup  
- Chicken and cheese quesadillas  
- Green salad  
- Tres leches cake

Thursday, Oct. 8  
Closed

[Chez Leon Menu](#)

Call x3524 to make your reservation.

[Archives](#)

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

[User University Profiles](#)

[ILC NewsLine](#)

meters long and have a width and height of 2.5 meters, making it more than 300 times larger than the largest chamber in the United States, which is located inside the [Argon Neutrino Test detector](#) at Fermilab.

[Read more](#)

— *Kurt Riesselmann*

[Special Announcement](#)

## Fire drill set for Thursday

Fire drills will take place from 8:30 a.m. until 10:30 a.m. Thursday in Wilson Hall. During the drill those evacuating the building should go to the assembly areas behind Ramsey Auditorium.

Floor Wardens need to report evacuation status to FESS management. Employees excused from the drill for medical reasons need to contact the Medical Office and inform their emergency warden.

The fire drill schedule is posted below:

- Floors 15, 14, 13 - 8:30 a.m.
- Floors 12, 11, 10 - 9 a.m.
- Floors 9, 8, 7 - 9:30 a.m.
- Floors 6, 5, 4, 3, 2, atrium, mezzanine, and ground floor - 10:30 a.m.

In the event of rain, the fire drill will be rescheduled for Friday.

[In the News](#)

## Three Americans share 2009 Nobel Prize in physics

From *The Associated Press*, Oct. 6, 2009

Three scientists who created the technology behind digital photography and helped link the world through fiber-optic networks shared the 2009 Nobel Prize in physics Tuesday.

Charles K. Kao was cited for his breakthrough involving the transmission of light in fiber optics while Willard S. Boyle and George E. Smith were honored for inventing an imaging semiconductor circuit known as the CCD sensor.

The Royal Swedish Academy of Sciences said all three have American citizenship. Kao also holds British citizenship while Boyle is also Canadian.

The award's 10 million kronor (\$1.4 million) purse will be split between the three with Kao taking half and Boyle and Smith each getting a

It was a job — many jobs — well done, but it's not yet time to relax. Now we must continue operation of the world's most productive accelerator complex, plus, future project planning and achievement of DOE critical decisions important to our future. And, did I mention that these activities will need to be conducted by many of the same people responsible for performing ongoing laboratory operations.

So much for mind-clearing rest in the northern Illinois timber. Well done, and keep up the good work.

[Safety Update](#)

## ES&H weekly report, Oct. 6

There was one non-recordable injury reported this week. A subcontractor sprained an ankle by stepping on the hose of a fume extractor. Find the full report [here](#).

[Safety report archive](#)

[Announcements](#)

## Latest Announcements

[Claim your bikes outside Wilson Hall](#)

[Director's Award nominations accepted until Oct. 26](#)

[Discounted Fright Fest tickets begin Oct. 9](#)

[Mentors wanted for Diversity Office's FermiLINK program](#)

[Scrapbooking Club open house - Oct. 12](#)

[Excel Shortcuts class - Oct. 13](#)

[NALWO Seminar - An introduction to neurofeedback - Oct. 14](#)

[Fermilab Toastmaster can help you find your voice - Oct. 15](#)

[Fermilab hosts workshop on Applications of High-Intensity Proton Accelerators - Oct. 19-21](#)

[Access 2007: Intro class - Oct. 20](#)

[Interpersonal Communication Skills](#)

## 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](#)

fourth. The three also receive a diploma and an invitation to the prize ceremonies in Stockholm on Dec. 10.

[Read more](#)

## In the News

**Name that atom smasher**

From *The New York Times*, Oct. 7, 2009

How often do you get to name a new atom-smasher, or even part of one?

New York Times readers now have the once-in-a-generation chance to help do just that. Partly buoyed by \$53 million from the economic stimulus package, aka the American Recovery and Reinvestment Act, the Fermi National Accelerator Laboratory, aka Fermilab, has embarked on a plan to build a new machine for accelerating protons.

For now, it goes by the name of Project X, but Fermilab would like to come up with a zippier, more descriptive name before this one gets cemented into place by the press. The new machine would replace an aging linear accelerator that now feeds the Tevatron, the world's biggest particle collider for at least another two months, before the giant Large Hadron Collider in Europe takes over. The Tevatron is due to be shut down in 2011; Project X, or whatever name it eventually gets, is a step toward insuring that Fermilab has a future in high energy physics.

[Read more](#)

[class - Oct. 21](#)

[Buttered Rum performs at Fermilab Arts Series - Oct. 24](#)

[Conflict Management and Negotiation Skills - Oct. 28, Nov. 11](#)

[Facilitating Meetings That Work class - Nov. 4](#)

[Fred Garbo Inflatable Theatre at Fermilab Arts Series - Nov. 7](#)

[Process Piping \(ASME B31.3\) class offered in October and November](#)

["The Night Before Christmas Carol" at Fermilab Arts Series - Dec. 5](#)

[Scottish Country Dancing Tuesday evenings at Kuhn Village Barn](#)

[Weight Watchers at Work coming soon](#)

[International folk dancing, Thursday evenings at Kuhn Village Barn](#)

[Annual enrollment now running](#)

[On-site prescription eyewear technician dates of absence](#)

[Thai Village restaurant discount](#)

[Scottish country dancing on Tuesday evenings in Ramsey Auditorium](#)

[Yoga class held at noon on Tuesdays in Ramsey Auditorium](#)

[Additional Activities](#)

[Submit an announcement](#)