

## Calendar

[Have a safe day!](#)

Friday, June 18  
3:30 p.m.  
DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
4 p.m.

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

Speaker: Jen Pursley,  
University of Wisconsin will  
present the result  
Title: CDF Update of our High  
Mass  $H \rightarrow WW$  search for  
Standard Model Higgs with 6  
inverse femtobarns

Monday, June 21  
11 a.m.

[Particle Astrophysics Seminar](#)

(NOTE TIME) - One West  
Speaker: Elisa Fenu,  
Université de Geneva  
Title: Primordial Magnetic  
Fields and Their Gravitational  
Waves Production  
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.

[Upcoming conferences](#)

## Campaigns

[Take Five](#)

[Tune IT Up](#)

H1N1 Flu

## Special Announcement

### Submit timecards today

The laboratory will move to the new Fermilab Time and Labor electronic timecard system on Monday, June 21. To help with this transition, please submit your timecard through the current system by the end of the day today.

For more information about the new timecard system, please visit [the website](#). To practice using the new timecard format, to review training documents, to check if your computer has the settings and software it needs, and to find out when local support team members will be available in your division, section or center, check [www.fnal.gov/ftl/launch.html](http://www.fnal.gov/ftl/launch.html). If the timecard takes more than two minutes to load after the first time you log in, try logging off and logging in a second time.

If you have questions about using the new timecard system or about finding training resources, you can reach local support team members at the Timecard Doctor booth in the atrium during lunch hours on Tuesday, June 22; Wednesday, June 23; Friday, June 25; and Monday, June 28.

## Recreation Feature of the Month

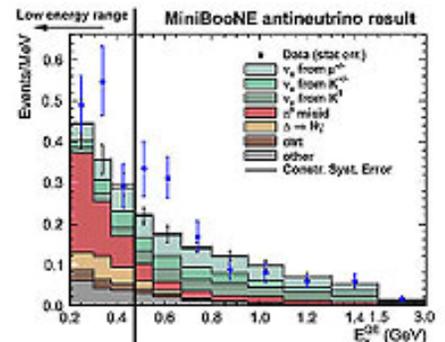
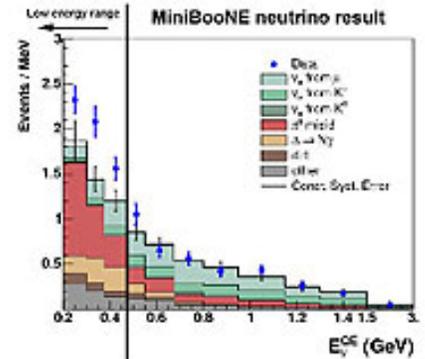
### Classes, events and discounts for July

The Village pool is open.

- Pool hours are noon – 7:00 p.m. from Tuesday – Friday, and 1-6 p.m. on Saturday and Sunday. Single memberships are available for \$85 per person. Family memberships are available for \$190 for up to four family members and \$10 per additional person.
- The third session of preschool and youth

## Special Result of the Week

### MiniBooNE results suggest antineutrinos act differently



A comparison of the energy spectrum for MiniBooNE electron neutrino (top) and antineutrino (bottom) candidates. Data is shown in blue points and compared to expected backgrounds.

Neutrinos, the ubiquitous daughters of the weak interaction, start their universe-traversing lives as one of three varieties:  $\nu_e$ ,  $\nu_\mu$ , or  $\nu_\tau$ . However, like ghosts with an identity crisis, these phantasmal particles find themselves constantly morphing from one variety to another, or oscillating, as they propagate on their long journeys.

Now the MiniBooNE experiment has found that antineutrinos, which should follow the same rules as neutrinos, might oscillate in a slightly different way. The results seem to favor a much-debated antineutrino result obtained by the Liquid Scintillator Neutrino Detector experiment in 1990.

The MiniBooNE experiment studies these oscillations by creating intense beams of muon neutrinos and antineutrinos, and directing them at an 800-ton sphere filled with mineral oil and located a half a kilometer away

For information about H1N1, visit Fermilab's flu information [site](#).

## Weather

 Chance of thunderstorms  
91°/70°

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

## Current Security Status

[Secon Level 3](#)

## Wilson Hall Cafe

Friday, June 18

- Breakfast: Chorizo burrito
- New England clam chowder
- Carolina cheeseburger
- Tuna casserole
- Dijon meatballs over noodles
- Bistro chicken & provolone panini
- Assorted sliced pizza
- \*Carved top round of beef

[Wilson Hall Cafe Menu](#)

## Chez Leon

Wednesday, June 23

- Lunch
- 40-clove garlic chicken
  - Glazed baby carrots
  - Lemon rice pilaf
  - Banana cream puff w/ bittersweet chocolate sauce

Thursday, June 24

- Dinner
- Closed

[Chez Leon Menu](#)

Call x3524 to make your reservation.

## Archives

swim lessons is available Monday – Thursday, July 12 - 22. Deadline to register is Friday, July 2. Session four begins Monday, July 26 and runs through Thursday, Aug. 5. Deadline to register is July 19. Cost: \$60 per person.

Fitness classes starting soon:

- Yoga: Noon – 1 p.m. Tuesdays, July 6 – Aug. 31 in the Wilson Hall Auditorium. Cost: \$85 per person.
- Muscle toning: 5:30 – 6:30 p.m. Tuesdays and Thursdays, July 6 – August 26 at the Recreation Facility exercise room. Cost: \$77 per person.

This month, the Benefits/Recreation Department will also sponsor the following wellness events:

- Lunch and Learn: Healthy Attachments in Relationships: Noon – 1 p.m. on Thursday, July 21, in Wilson Hall's Curia II conference room.
- Qi Gong, Mindfulness & Tai Chi Easy: Noon-12:45 p.m. on Fridays in the Wilson Hall Auditorium. Free.

Club meetings:

Toastmasters: Noon-1 p.m. on Thursdays, July 1 and July 15 in the Racetrack conference room, WH7. [Learn more](#)

Athletic leagues:

- Ultimate Frisbee: 5:30 p.m. to 8 p.m. on Mondays and Wednesdays at the Village soccer field. Contact Joe at [cooljoe@fnal.gov](mailto:cooljoe@fnal.gov) for more information.
- Open badminton: 11 a.m. – 1 p.m. on Wednesdays at the Recreation Facility Gym membership is required. For more information contact Aaron at [achou@fnal.gov](mailto:achou@fnal.gov)

Employees and users can also contact the Recreation Department to take advantage of special discounts, including:



**RECREATION**

**CLASSES**

**Yoga**  
Tuesdays July 6 - August 31  
Wilson Hall Auditorium, Noon - 1:00 p.m.  
\$85/person

**Muscle Toning**  
Tuesdays and Thursdays July 6 - August 26  
Recreation Facility Exercise Room, 5:30 - 6:30 p.m.  
\$77/person

**Preschool & Youth Swim Lessons**  
Mondays thru Thursdays - 2 Week Sessions  
July 12 - 22 (Deadline to register is July 2)  
July 26 - August 5 (Deadline to register is July 18)  
Village Pool - Mondays  
\$65/person  
Register at the Recreation Office 384115W or call x3548

**WELLNESS**

**Lunch & Learn: Healthy Relationship Attachments**  
Thursday, July 21  
Wilson Hall, Curia II, Noon - 1:00 p.m.

**Qi Gong, Mindfulness & Tai Chi Easy**  
Fridays, Wilson Hall Auditorium, Noon-12:45pm

**ATHLETIC LEAGUES**

**Ultimate Frisbee**  
Mondays and Wednesdays  
Village Soccer Field, 5:30 - 8:00 p.m.  
Contact Joe at [cooljoe@fnal.gov](mailto:cooljoe@fnal.gov)

**Open Badminton on Wednesdays**  
Recreation Facility, 11am-1pm  
Contact Aaron at [achou@fnal.gov](mailto:achou@fnal.gov) for info.  
Gym Membership Required.

**EMPLOYEE CLUBS**

**Toastmasters**  
Thursdays, July 1 and 15  
7<sup>th</sup> Floor Racetrack, Noon - 1:00 p.m.

**EMPLOYEE DISCOUNTS**

**Movie Tickets**  
AAMC Tickets \$7.00 - \$8.00  
Dinefrisk Tickets \$7.00

**Big Flags Great America**  
Discount tickets available online.  
<http://fnal.gov/recreation/concessions.html>

**Country House General**  
20% discount off food items Monday thru Thursday after 4:30 p.m. in July. Discount offered to Fermilab employees only with badge. Not valid with other offers. Does not include alcohol, tax or gratuity.

**Fermilab ENERGY**  
Hosted by the Recreation Department,  
an Office of Employee Development & Resources Center  
[benefits@fnal.gov](mailto:benefits@fnal.gov) <http://fnal.gov/recreation/index.html>

from the beam's source. The vast majority of these particles pass through the detector unscathed; however, a few unlucky voyagers pass too close to a carbon nucleus. The neutrinos, or antineutrinos, interact with carbon nuclei, giving scientists a glimpse of the particles' true identities.

MiniBooNE counts how many muon antineutrinos oscillate into electron antineutrinos over a relatively short distance. A 1990 result from the LSND experiment at Los Alamos, which used a beam of muon antineutrinos, reported electron-antineutrinos appearing about 0.25 percent of the time. The result is difficult for scientists to reconcile in a world with only three active neutrinos.

Earlier this week, after nearly three years of running in antineutrino mode, MiniBooNE collaborators announced that they had obtained a result consistent with the findings from LSND. In fact, analyzing the data in the context of a standard two neutrino mixing model favors an LSND-like signal at a 99.4 percent confidence level. However, model-independent tests show there is still a three percent chance that the background could fluctuate in such a way as to mimic the data. While this new result is intriguing, a confirmation of LSND will require more data.

[Read more](#)

## Announcements

### Latest Announcements

[Web of Science citation database online trial](#)

[Day Camp payments due](#)

[Get to know great inventors in Inventor's Workbench, a Science Adventure](#)

[Drug Sniffing Dogs at Users' Center - today](#)

[English country dancing June 20](#)

[Submit FTL timecards today](#)

[Free Webinar on "Retirement Planning for Women," June 30](#)

[Blood drive - new sign up link](#)

[Lecture Series: Intermediate/](#)

[Fermilab Today](#)[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)

Visit the Fermilab

[home page](#)

[Unsubscribe](#) from *Fermilab*

*Today*

- AMC and Goodrich Theater tickets: AMC tickets \$8. AMC two-week restriction tickets \$7. Goodrich tickets \$7.
- [Rosati's Pizza](#) of Batavia offers Fermilab employees a 20 percent discount on pizzas and 15 percent off other menu items.
- Fermilab Days at Six Flags Great America will take place on June 26, July 3, 4, 5 and 31, August 1, 7 or 8. [Tickets are available](#) online for \$26. Visit [sixflags.com](http://sixflags.com), choose Six Flags Great America park, and enter the promo code (Fermi) in the upper right hand corner. Any day tickets are available for \$33 online.
- Country House Geneva is offering a 20 percent discount on food items Monday through Thursday after 4:30 p.m. in July. Discount offered to Fermilab employees only with badge. Not valid with other offers. Does not include alcohol, tax or gratuity.

[In the News](#)

## The other U.S. energy crisis: Lack of R&D

From *Business Weekly*, June 17, 2010

*R&D neglect is holding back innovative energy technologies*

BP says it's throwing its best people at stopping the Gulf of Mexico oil spill. Nevertheless, it took an outsider—Energy Secretary Steven Chu, who has a Nobel Prize in physics—to come up with the idea of peering inside the malfunctioning blowout preventer with high-energy gamma rays. BP tried Chu's idea—after a few snickers and Incredible Hulk jokes, according to the Washington Post—and lo and behold, it worked. The probe was "crucial in helping us understand what is happening inside the BOP [blowout preventer] and informing the approach moving ahead," said Jane Lubchenco, head of the National Oceanic & Atmospheric Administration.

The gamma ray incident is symptomatic of a problem that's bigger than London-based BP: Energy companies worldwide are far less science-oriented than one might expect from an industry that is heavily dependent on technology for safety and profit. In the U.S., energy companies' spending on research, development, and deployment amounts to just 0.3 percent of sales. That's barely more than a tenth what the auto industry spends as a share of sales and is dwarfed by the

[Advanced topics in C++ programming](#)[Kyuki-Do Martial Arts classes begin June 21](#)[Time to complete accomplishment reports](#)[Attention Fermilab employees with 30 or more years of service](#)[Argentine Tango, June 16 - 30](#)[Deadline for The University of Chicago Tuition Remission Program - June 25](#)[Adult water aerobics - Mondays](#)[Adult swim lessons - Mondays](#)[Bike to Work Week - June 12-18](#)[Blood drive - June 21 and 22](#)[Ask HR: 15th floor visits FESS - Site 38 on Tuesday, June 22](#)[10,000 Steps-a-Day walking program](#)[Fermilab Arts Series presents Corky Siegel and Chamber Blues - June 26](#)[Sign up for summer Science Adventures classes](#)[Introduction to LabVIEW course - July 13](#)[Embedded Design with LabVIEW FPGA and CompactRIO seminar - July 13](#)[Interaction Management Coaching Forum - July 27](#)[Submit an announcement](#)

Classifieds

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

pharmaceutical industry, which spends nearly 19 percent of sales. (American Petroleum Institute chief economist John Felmy says R&D measures understate his industry's "overall investment for the future.")

[Read more](#)