

Calendar

[Have a safe day!](#)

Wednesday, July 22
3:30 p.m.

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

[Fermilab Colloquium](#) - One
West

Speaker: Craig Hogan,
Fermilab/University of Chicago
Title: Holographic Noise in
Michelson Interferometers: A
Direct Experimental Probe of
Unification at the Planck Scale

Thursday, July 23
2:30 p.m.

[Theoretical Physics Seminar](#) -
Curia II

Speaker: Silvia Pascoli,
Durham University
Title: Sterile Neutrinos in
Cosmology and Laboratories
3:30 p.m.

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

THERE WILL BE NO
ACCELERATOR PHYSICS
AND TECHNOLOGY
SEMINAR TODAY

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

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather

Feature

Neutrino school offers education, networking



[Participants in the 2009 International Neutrino Summer School.](#)

This month, 94 graduate students and postdocs from all over the world converged in one place to broaden their knowledge of neutrino physics. From July 6 -17, Fermilab hosted the 2009 International Neutrino Summer School, where a diverse group of students learned about the full field of neutrino physics from neutrino scientists.

"We deliberately tried not to have too tight a focus and instead surveyed the whole field of neutrino physics," said workshop Chairman Steve Brice.

Lectures this year included how neutrinos affect the Standard Model, the framework of neutrino research so far and accelerator physics.

Students also had the chance to present their own theories and questions, demonstrate what they have learned and suggest what they want to learn about neutrinos.

"We offered this because neutrino physics is changing so rapidly," Brice said. "Exposing students to this school now will get them enthused about neutrino physics. They are the generation that will study this 10 to 20 years from now."

The students were excited about the school.

"I enjoyed the opportunity to meet new people and learn about all of these different fields in particle physics," said Laura Bodine, a graduate student from the University of Washington.

From the Accelerator Division

Shutdown observations

Roger Dixon, head of the Accelerator Division, wrote this week's column.

We are almost six weeks into the accelerator shutdown, and progress is good. Safety incidents in the accelerator enclosures have been minimal so far. In fact, we have had only one first-aid case underground; while "upstairs" we had four first-aid cases and one reportable incident during the same period.



Roger Dixon

Thank you for being attentive as you work on our accelerators. Please do not let your guard down when you leave the accelerator enclosures.

Shutdowns really bring the laboratory together and bring out the best in all of us. Our to-do list for this year's shutdown includes about 500 separate tasks. Without considerable help from FESS, PPD, TD and a large number of contract technicians, we would not be able to complete these tasks on schedule.

To date, as we knock items off our job list, we have not encountered any insurmountable problems. One of the larger tasks, the Booster corrector installation, appears to be slightly ahead of schedule. But there have been tasks that required a good measure of ingenuity to complete the job. The repair of a water leak in one of the NuMI horns is one example; it required a considerable level of dexterity, as well. Another example is the repair of liquid-helium leaks in the Tevatron. Chasing down and repairing the leaks requires experience, perseverance and the mind of a sleuth.

Surprises are still possible. Many of our routine maintenance tasks, for example, could end up being more extensive than planned. And one of our biggest challenges is incorporating into our schedule the construction going on in the Main Injector tunnel, which helps us prepare for the higher-intensity neutrino beam that we need for the NOvA neutrino experiment.



Slight chance of
thunderstorms
76°/58°

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

[Current Security
Status](#)

[Secon Level 3](#)

[Wilson Hall Cafe](#)

Wednesday, July 22
- Beef barley
- Gyros
- Caribbean grilled salmon
- Liver w/ onions
- Beef & cheddar panini w/
sauteed onions
- Assorted sliced pizza
- Grilled chicken bowtie w/
tomato cream

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Wednesday, July 22
Lunch
- Spinach & cheese stuffed
portobello
- Mixed green salad
- Fresh fruit plate

Thursday, July 23
Dinner
- Closed

[Chez Leon Menu](#)

Call x3524 to make your
reservation.

[Archives](#)

Pedro Machado, a student from the University of Sao Paulo, was excited to hear from Boris Kayser, a well-respected neutrino scientist at Fermilab.

"I am now able to bridge the gap between the experimental and theoretical aspects of the field," Machado said.

Gwenielle Lefevre, a postdoc from the University of Sussex, said she enjoyed the overview of neutrino physics during the 12-day school.

"This is definitely the best school conference I have been to," she said.

-- *Tonisha Taylor*

Special Announcement

Guided sunset prairie tour

Aaah, the smell of the flowers; the glow of the sunset over a restored grassland. What could be better than that? How about a guide to point out the diverse flora and explain its importance to the ecosystem?

Ryan Campbell, an ecologist consulting with Fermilab, is willing to do just that during a special Fermilab Sunset on the Prairie tour at 7:30 p.m. Thursday, July 23. The tour is free and open to Fermilab employees and the general public. Campbell will discuss the wildflowers, native prairie ecology and its contribution to the Chicago metropolitan landscape.

The tour involves walking a grass trail, so please wear appropriate shoes. Meet in the gravel parking lot at the Margaret Pearson interpretive trail off westbound Pine Street. The rain date will be 7:30 p.m. Friday, July 24. No registration is required.

In the News

The intense focus on the shutdown work does not mean that other laboratory activities have stopped. Many people in various divisions and sections, including AD, are very busy planning and designing our future research program. After all, we are on a mission to understand the laws of nature that govern our universe.

Well, at least it would be nice to understand which law of nature bars the Cubs from winning the World Series.

Safety Update

ES&H weekly report July 21, 2009

This week's safety report, compiled by the Fermilab ES&H section, includes three reported injuries. We have now worked 24 days without a recordable injury.

Find the full report [here](#).

[Safety report archive](#)

Photo of the Day

New employees - July 6



From left: Angela Sands, PPD; Barb Kristen, WDRS; Douglas Spolyar, PPD; Dixon Bogert, AD; Reka Feher, TD; Serena Barbanotti TD; and Gabriel Dunn, WDRS.

Announcements

[Fermilab Today](#)[Result of the Week](#)[Safety Tip of the Week](#)[User University Profiles](#)[ILC NewsLine](#)**Info****Fermilab Today**

is online at:

www.fnal.gov/today/

Send comments and suggestions to:

today@fnal.govVisit the Fermilab [home page](#)**University, Fermilab scientists to receive \$216,000 in collaborative seed grants**From the **University of Chicago News Office**, July 15, 2009

Scientists at Fermi National Accelerator Laboratory and the University of Chicago have been awarded \$216,000 for new and continued joint research projects through the University's Strategic Collaborative Initiatives program for Fermilab. The research projects cover a broad range of studies and include, in one case, collaboration with an Argonne scientist.

[Read more](#)**In the News****LHC suffers more leaks, and delays**From **Wired**, July 20, 2009

Just as CERN finished repairing the damage last September's Large Hadron Collider helium leak, a new problem cropped up.

Engineers discovered two vacuum leaks in areas of the enormous atom smasher that are supposed to be maintained at ultracold temperatures. They'll have to warm those areas up to complete the repairs, which will set back the project another couple of months.

Now, it won't be ready for new particle beams until mid-November. Late last year, CERN foresaw the LHC back up and running in July 2009. In February, the schedule was pushed back to September, and now we probably shouldn't expect actual particle beams until late November.

The LHC is currently a full two and a half years behind the schedule laid out in CERN's 2005 annual report by the project's leader, Lyn Evans.

"[O]ur commitment is still firmly behind the objective of colliding beams in the summer of 2007," Evans wrote back then.

[Read more](#)**Latest Announcements**[Summer safety tips for older adults](#)[Free 10-minute chair massage today and July 23](#)[Intermediate/advanced Python programming today - July 24](#)[Reminder: Changes to FTL system](#)[Time to complete Accomplishment Reports](#)[Bristol Renaissance Faire discount tickets](#)[Six Flags Great America discount tickets](#)[Pool memberships available in the Recreation Department](#)[Raging Waves Waterpark online discount ticket program](#)[Argentine Tango classes through July 22](#)[Free hips, buns & thighs 30-minute workout - July 23](#)[Toastmaster meeting scheduled - July 23](#)[Summer safety tips for older adults](#)[Accelerated C++ short course begins August 6](#)[Outlook 2007: New Features class Aug. 6](#)[The University of Chicago Tuition Remission Program - August 17 deadline](#)[Process piping \(ASME B31.3\) class offered in October and November](#)[Deadline today for on-site housing-fall 2009/spring 2010](#)[Additional Activities](#)

