

## Calendar

**Tuesday, Aug. 26**  
3:30 p.m.

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
THERE WILL BE NO  
ACCELERATOR PHYSICS  
AND TECHNOLOGY  
SEMINAR TODAY

**Wednesday, Aug. 27**  
3:30 p.m.

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
THERE WILL BE NO  
FERMILAB COLLOQUIUM  
THIS WEEK

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

## Weather



**Mostly sunny**  
79°/57°

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

## Current Security Status

[Secon Level 3](#)

## Wilson Hall Cafe

**Tuesday, August 26**

- Creamy turkey vegetable
- Chili dog
- \*Tomato Swiss steak
- Chicken cacciatore
- Italian panini w/provolone
- Assorted slice pizza
- Super burrito

[Wilson Hall Cafe Menu](#)

## Chez Leon

## Feature

### Physics of Argentine tango



Members of the Argentine Tango class dance during a lesson on the stage of Ramsey Auditorium in Wilson Hall.

Every Wednesday night when the lights dim in Ramsey Auditorium the stage becomes a milonga, an Argentine dance salon.

"Physics and tango both require passion to become very good," said Pamela Noyes, of Fermilab's Procurement Department.

"Physicists follow motion with their equations. Tango dancers follow each others motion with their senses.... If done well, both are extremely gratifying, perhaps one more to the mind and the other to the senses."

Noyes, who has taken tango classes for the last three years, grew tired of traveling weekdays to Chicago for classes. So, she asked her instructors to come to Fermilab to teach.

Two professional Argentine tango dancers from Chicago teach the beginning and intermediate classes, which began July 23 and have already attracted more than 50 students.

"I would talk about tango at work and people would say they would like to learn," Noyes said.

While ballroom and folk-dancing classes have been taught before at Kuhn Barn, this is the first Argentine tango class. Compared to other forms of tango, Argentine tango is a more intimate dance where the leader and follower interpret the music spontaneously and dance in an open or closed embrace.

## Director's Corner

### Thinking ahead

After a long time without any recordable cases, and almost a year without an injury that required restrictions or days away from work (DARTs), in the last couple of weeks we have had two recordable cases, one of which was a DART case.

Fortunately, the injured employees are on the mend.



Pier Oddone

The most frequent cause of injuries at Fermilab is a lapse of attention during routine activities that are similar to activities in daily life outside the lab. I am writing about the two recent incidents because they have a different character. Both reflect physical situations that, on hindsight, were likely to cause trouble.

The first incident involved a burn to the arm of an employee who had just shut off a valve on a portable, gasoline powered pump. The person's hand slipped from the handle of the valve causing the arm to move and contact the hot engine muffler. In this case the geometrical arrangement of the handle and the muffler were not optimal. A simple fix, after the fact, was to flip the direction of the handle so that a hand slipping on the valve handle would not cause the arm to contact the muffler. We are inspecting all similar equipment to eliminate this problem.

The second and more serious incident involved the changing of a belt on a large ventilation fan. With the power secured and locked-out the employee proceeded to replace the first of two belts. While rolling the belt from the outer to the inner groove the individual wrapped a hand around the belt to gain leverage. The rolling of the belt allowed the fan to begin to rotate and the momentum carried the hand into the sheave causing the index finger to become trapped between the belt and the sheave. The index finger was lacerated and the bone broken just below the finger nail.

Had we anticipated the hazard of a large fan moving even when the power was off, we

**Wednesday, Aug. 27****Lunch**

- Salad nicoise with fresh grilled tuna
- Lemon cake with blueberry coulis

**Thursday, Aug. 28****Dinner**

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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

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is online at:

[www.fnal.gov/today/](http://www.fnal.gov/today/)

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[today@fnal.gov](mailto:today@fnal.gov)

"Tango is all about walking," Noyes said. "If you can walk with attitude, you can learn to dance tango."

The classes draw dance recruits from all over the laboratory, including graduate students, interns and the laboratory's director. Most students have no prior dance experience.

"I've always loved to tango," said Fermilab's Director Pier Oddone. "We don't get much of a chance to go dancing around here, so when I saw that Argentine tango classes were offered we jumped at the opportunity."

The on-going classes cost \$15 per session. Space is limited. Contact [Pamela Noyes](#) for more information.

-- Jennifer L. Johnson

**LHC Update****Final LHC synchronization test a success**

From CERN, Aug. 25, 2008

CERN has today announced success of the second and final test of the Large Hadron Collider's beam synchronization systems which will allow the LHC operations team to inject the first beam into the LHC.

Friday evening Aug. 22, a single bunch of a few particles travelled down the transfer line from the Super Proton Synchrotron (SPS) accelerator to the LHC. After a period of optimization, one bunch was kicked up from the transfer line into the LHC beam pipe and steered counter-clockwise about 3 kilometres around the LHC.

"Thanks to a fantastic team, both the clockwise and counter-clockwise tests went without a hitch. We look forward to a resounding success when we make our first attempt to send a beam all the way around the LHC," said Lyn Evans, LHC Project Leader.

[Read more](#)

**In the News**

could have put procedures in place to avoid it. We are analyzing this type of equipment and associated maintenance activities across the lab to put improved procedures in place. With 20-20 hindsight we see clearly what could have been done to decrease the probability of these injuries.

The challenge for all of us is to anticipate potentially hazardous situations in all activities we do, even when we have used equipment or performed tasks for years without incident. Think safety. Imagine what could happen.

If you see ways we can make a piece of equipment or a procedure safer, please take the initiative to bring us your advice.

**Photo of the Day****Summer sand volleyball league champions**

Team Ratnikov, is the Fermilab summer sand volleyball league champion. The team had a record of 24 wins and 5 losses.

**Accelerator Update****August 22-25**

- Four stores provided 54 hours and 1 minute of luminosity
- LRF4 repaired
- F4 wet engine overhauled
- B3 bypass switch replaced
- Controls experts working on QF12 problems

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

**Announcements**

## Fruit juice, dirty bombs and the appliance of science

From the *Times Online*,  
Aug. 24, 2008

...[Sir Keith O’Nions, former chief scientist at the Ministry of Defence] is particularly excited about potential gains from the world’s biggest scientific experiment – the Large Hadron Collider, a particle accelerator at the European Cern lab near Geneva that will fire up next month.

The £2.6 billion atom-smasher’s main goal is to prove – or to disprove – the existence of the Higgs boson, the elusive “God particle” that is supposed to give matter its mass, but which has yet to be detected. But it could also provide clues to processing mountains of surveillance data that are fiendishly difficult to interpret.

“This is no more than an intelligent guess, but the thing about the Large Hadron Collider is that it pushes several things to new limits in technology,” Sir Keith said. “One is the detectors themselves; the sensitivity has moved to a new level. The other is the capacity to handle huge amounts of data.

“Effectively, they’re looking for the odd event that says, ‘Ah yes, we’ve got one of those,’ against a background of events that may be a billion or ten billion. It’s looking for the event that actually tells us that the Higgs boson exists, against a lot of information that’s not actually very useful.

“Now that’s great. They may find the Higgs boson and understand gravity, or they may not. Then you think well, what else can you think of in the world of security where finding the real event among billions of background events may be important? Well, it’s all a bit of a no-brainer.

“If you think of the amount of remote observation that’s made, of looking for rare events within that, you can start to see that it would not be surprising if some of these mathematical and computational techniques found their way into security, where you’ve got very large amounts of data and you’re looking for that rare event.”

[Read more](#)

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

### **Blood Drive Aug. 26, 27**

Fermilab's next blood drive will take place from 8 a.m. - 2 p.m. on Aug. 26 and 27. Heartland Blood Centers will take donations in the Wilson Hall ground floor NE Training Room. To ensure enough BBQ sets and aprons are available for all who donate, appointments are encouraged, although walk-ins are welcome. Schedule appointments [online](#) or call Diana at x3771 or Margie at x5680.

### **Altera's Quartus II Software Design classes**

The Office for Professional and Organization Development will offer classes in Altera's Quartus II Software Design Series. Altera's Quartus II Software Design Series: Timing Analysis - Sept. 16. [Learn more and enroll](#). Altera's Quartus II Software Design Series: Optimization - Sept. 17. [Learn more and enroll](#). The enrollment deadline for both classes is Aug. 29.

### **GSA triathlon Aug. 30**

Fermilab's Graduate Student Association will host its annual triathlon on Saturday, Aug. 30, beginning at 7:30 a.m. The event will begin with an 800m swim in the Fermilab pool, continue with a 20km bike ride and finish with a 5km run. All events will occur on Fermilab property. Access more information on the [event Web page](#). To sign up, e-mail the [GSA Officers](#).

### **Scottish Country Dancing Tuesday**

Scottish Country Dancing will meet in Ramsey Auditorium Tuesday, Aug. 26. Instruction begins at 7:30 p.m. Newcomers are always welcome. Most dances are fully taught and walked through, and you do not need to come with a partner. For more information call (630) 840-8194 or (630) 584-0825 or [e-mail](#).

## [Additional Activities](#)