

Calendar

[Have a safe day!](#)

Monday, Nov. 23
2:30 p.m.

[Particle Astrophysics Seminar](#)

- One West

Speaker: Eric Adelberger,
University of Washington
Title: A Low-Energy Frontier of
Particle Physics

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

All Experimenters' Meeting
Special Topic: MINERvA Sees
Its First Antineutrino Beam
Curia II

Tuesday, Nov. 24

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

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](#)

H1N1 Flu

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

Weather

From *symmetry breaking*

LHC milestone: two simultaneous circulating beams



Celebration on Friday in the LHC Central Control Room at CERN after operators established a circulating clockwise beam at 4 p.m. EST.

CERN's Director for Accelerators Steve Myers announced today that for the first time two beams are circulating simultaneously in the LHC. The announcement was made at a press conference held at the laboratory. The [first individual circulating beams of 2009](#) were successfully established on Friday, November 20.

The next steps will be a careful, systematic testing of the accelerator.

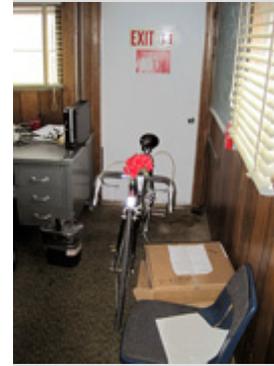
"We will systematically go through all the measurements, put all the systems through their tests, and when we're sure everything's safe, we will increase the beam intensity," explained Myers. "During some shifts we will try to accelerate beam to the maximum energy for this year - 1200 GeV per beam. Then we will decide about collisions. Two possibilities are to collide at the 450 GeV injection energy or at 1200 GeV per beam. That is our program until just before Christmas." Over the next year, the energy will be ramped to 3.5 TeV (3500 GeV) per beam, and then possibly to a maximum of 5 TeV.

"With 3.5 TeV per beam we will open new windows to new physics," noted CERN Director-General Rolf Heuer.

Fabiola Gianotti, spokesperson of the ATLAS experiment, observed, "This is at the same time the end of twenty years of effort by the international scientific community to build a machine and detector of unprecedented complexity and technological challenges, and

ES&H Tips of the Week - Safety

Are your building exits safe?



Safety inspectors at Fermilab found a bicycle obstructing this emergency exit. Exit pathways might look like unused storage space, but they are empty for a reason.

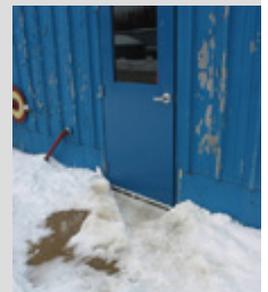
Having an emergency exit does little good if you can't get through it.

For exits to be useful, people must be able to find and navigate through them. Fire codes govern the placement and design of these exits for the safety of the buildings' occupants. Recent safety inspections at Fermilab found some emergency exits or pathways to emergency exits that were obstructed. It is part of every person's job to make sure that exit signs, lights and pathways are working, unobstructed and up-to-date.

Exit signs — The purpose of exit signs is to guide people to the best exit pathway in the event of fire or other emergency. You have probably seen them posted at exit doors and along paths of travel. Exit signs can fall short because they are not sufficiently apparent (due to placement or number), they are misleading, or, in the case of illuminated signs, because they are not lit.

Exit lights — These help to identify the exit pathway as well as afford visibility under low-light conditions. Common problems are misdirected, broken or limited lighting.

Exit pathways — These should provide unobstructed routes that people can use for the prompt and safe evacuation of buildings. Unfortunately, the open space afforded by some exit areas can attract storage of miscellaneous items.




 Foggy
55°/40°

[Extended Forecast
Weather at Fermilab](#)
[Current Security
Status](#)
[Secon Level 3](#)
[Wilson Hall Cafe](#)

Monday, Nov. 23

- Breakfast: croissant sandwich
- Spicy beef and rice soup
- Corned beef reuben
- Roast pork loin
- Spaghetti with meat sauce
- Chicken Oriental wrap
pineapple
- Assorted slices of pizza
- Pacific Rim rice bowl

[Wilson Hall Cafe Menu](#)
[Chez Leon](#)

 Wednesday, Nov. 25
Lunch

- Cheese fondue
- Marinated vegetable salad
- Peaches with raspberry
sauce

 Thursday, Nov. 26
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](#)

the beginning of a fantastic era of physics exploration and discovery."

Read the [US LHC Press Release](#) and the [CERN Press Release](#) on individual circulating beams.

Read more LHC updates on [symmetry breaking](#).

[In the News](#)

LHC starts circulating protons in two directions

From *Times Online*, Nov. 23, 2009

Beams of protons are circulating in both directions around the Large Hadron Collider (LHC) for the first time, after it was restarted on Friday following a 14-month shutdown for major repairs.

CERN scientists said the achievement, made this morning, brings the £5bn "big bang machine" closer to full operation and sets the stage to start smashing particles within weeks.

Detectors around the LHC's 27km (17 mile) ring have already started to detect traces of collisions between particles in the beams and equipment, showing that they are in good working order.

Engineers may now bring the two beams together in the next few days to stage small collisions to help scientists to calibrate the detectors, with higher-intensity collisions scheduled before Christmas. High-energy collisions for new physics are then expected in January.

[Read more](#)
[In the News](#)

More scientists treat experiments as a team sport

From *The Wall Street Journal*, Nov. 20, 2009

If all goes well, researchers Friday may power up the Large Hadron Collider — a \$6 billion particle accelerator near Geneva. The atom smasher is so large that a brief status report lists 2,900 authors, so complex that scientists in 34 countries have readied 100,000 computers to process its data, and so fragile that a bird dropping a bread crust can short-circuit its power supply — as occurred earlier this month.

Most folks at Fermilab have little direct responsibility for the installation and maintenance of exit signs and lights. You should direct issues with these devices to the appropriate building manager. On the other hand, misplaced clutter is something that we can all work to remove. Please do your part to keep exit pathways clear.

[Snow and other debris can block or partially obstruct emergency exits.](#)

-- *Tim Miller, ES&H associate head*

[Safety Tip of the Week Archive](#)
[In the News](#)

Future colliders: Beyond the LHC

From *New Scientist*, Nov. 20, 2009

The Large Hadron Collider is by no means the last of the particle smashers. A group at CERN recently explored the various scenarios that might emerge from the atomic debris in Geneva — and how they would shape what colliders we build next. We draw out the key points about each of the scenarios.

[Read more](#)
[Accelerator Update](#)

Nov. 18-20

- One store provided approximately 29 hours of luminosity
- TeV sector A2 cryo leads repaired
- TeV sector A1 dipole magnet aligned
- Cryo controls power supply failure delays shot setup
- H⁻ Source extractor repaired

[Read the Current Accelerator Update](#)
[Read the Early Bird Report](#)
[View the Tevatron Luminosity Charts](#)
[Announcements](#)

Info

Fermilab Today is online at: www.fnal.gov/today/

Send comments and suggestions to: today@fnal.gov

Visit the Fermilab [home page](#)

Far from trouble-free, the proton accelerator is resuming operations after a catastrophic breakdown in 2008 that triggered a year of repairs and recriminations. Its large research teams operate on such an elaborate scale that project management has become one of science's biggest challenges.

[Read more](#)

Photo of the Day

Beaver near the booster ring

AD's Marty Murphy took this photo of a beaver swimming in the Central Utility Building pond on Nov. 14.

Latest Announcements

[Weight Watchers at Work program - Dec. 2](#)

[University of Chicago tuition remission deadline - Nov. 24](#)

[Prescription eyewear technician location change - begins Nov. 25](#)

[NALWO winter tea - Dec. 1](#)

[Yoga class promotion - Dec. 1-22](#)

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

[Wilson Hall stocking stuffer holiday sale - Dec. 9-10](#)

[Free introductory martial arts classes - Dec. 14 and 16](#)

[Fermilab Management Practices seminar - Feb. 11](#)

[Register for your TurkeyDate](#)

[2010 entertainment discount book available online](#)

[Lederman Science Center holiday hours](#)

[Consider a car or van pool this winter](#)

[Argentine Tango at Fermilab meets Wednesday nights](#)

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

[Discount movie tickets available](#)

[Chicago Blackhawks discount tickets](#)

[Thai Village restaurant discount](#)

[Additional Activities](#)

[Submit an announcement](#)