

Calendar

Wednesday, June 28

11:00 a.m. Fermilab ILC R&D Meeting - Curia II (note location)

Speaker: V. Kuchler, Fermilab

Title: Conventional Facilities and Siting Update

3:30 p.m. DIRECTOR'S COFFEE

BREAK 2nd Flr X-Over

4:00 p.m. Fermilab Colloquium -

Auditorium (note location)

Speaker: C. Falco, University of Arizona

Title: The Science of Optics; The History of Art

Thursday, June 29

2:00 p.m. ILC Detector R&D Meeting -

Hornet's Nest (WH-8X)

Speaker: A. Para, Fermilab

Title: Impressions from CALOR06

2:30 p.m. Theoretical Physics Seminar -

Curia II

Speaker: A. Mitov, DESY

Title: Heavy Quark Fragmentation at NNLO: From LEP to the Tevatron and LHC

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Accelerator Physics and

Technology Seminar - Curia II

Speaker: M. Champion, Oak Ridge

National Laboratory

Title: Stability Issues in Superconducting RF Linacs

Announcement: Heartland Blood

Centers will be here for the Fermilab

Blood Drive on June 27 and 28, from

8:00 a.m to 2:00 p.m. in the Wilson Hall

Ground Floor NE Training Room.

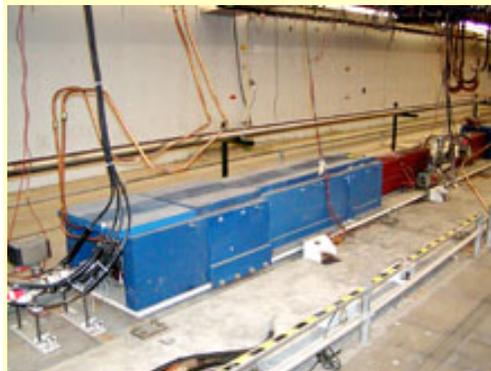
Appointments can be scheduled on the

Download 2006 performance review form for supervisors

In July, supervisors will begin to review accomplishment reports and write performance reviews. The Performance Review form and its rating criteria have been updated as part of our continuous improvement and compliance initiatives, and supervisors can now download the [new form](#).

More information on the performance review process is available on the Labor and Employee Relations [website](#). It also lists the [timetable](#) for the 2006 review. If you have further questions, please contact the Employee Relations Department at extension 3326, 3793, or 4367.

Beam Abort: Near lightspeed to zero in 21 microseconds



If an off-kilter beam needs to be stopped, a series of magnets steer the beam toward absorbent graphite discs inside this abort block. (Click image for larger version.)

Readers Write

We donut mean to annoy you

In this new "Readers Write" column, Fermilab Today will run letters from our readers. Below is neutrino physicist David Boehnlein's response to [Friday's donut story](#). We promise this is the last time this week that FT will mention donuts.

Dear Mike [Syphers],

After seeing your description of the collider energy expressed in terms of colliding doughnuts in [Fermilab Today](#), I was appalled. There are some things that should not be taken lightly and one of these is trademark infringement. As a former member of the DONUT collaboration (E872 - Direct Observation of NU-Tau), I must protest. While I appreciate your effort to express the awesome power of the Tevatron in terms of more mundane items, I don't see why you couldn't have used muffins, brownies, or even chocolate chip cookies - extremely popular snacks that would be readily embraced by the public. If you are going to persist in presenting this analogy, then I believe you ought to note that the typical beam spill for DONUT put the energy of roughly half a doughnut (95 calories) onto our neutrino production target, a rather impressive amount for a fixed-target experiment.

Best regards,

Dave Boehnlein

If you would like to submit a letter, write to us at today@fnal.gov.

[web](#) or by calling Diana at x3771.

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

Weather



T-Storms likely **79°/59°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Wednesday, June 28

- Creamy Mushroom Chicken Soup
- Texas Style Meatloaf Sandwich
- Chicken Wellington
- Italian Sausage w/Peppers
- Smoked Turkey Panini Pesto Mayo
- Assorted Slice Pizza
- Chicken Alfredo Fettucine

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express.

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, June 28

Lunch

- Dominican Beef Salad
- Root Vegetable Vinaigrette
- Orange Cake with Sorbet

Thursday, June 29

Dinner

- Peach and Brie Quesadillas w/Lime Honey Sauce
- Red Snapper Veracruz
- Jicama, Carrot, Green Bean Julienne
- Bourbon Walnut Tart w/Vanilla Ice

With the ability to speed bunches of particles close to the speed of light comes a major responsibility: Physicists need a way to instantly stop the beam. When conditions sour, the Tevatron enlists a computerized "beam abort" system at AZero to automatically stop beams with the kinetic energy of a six-ton truck moving at 60 mph.

"If the beams are left to circulate under bad circumstances, you can easily damage systems," said Dean Still of the Tevatron Department. "The beams poked holes in vacuum pipes and damaged a magnet in earlier days." Still says beams can lose control when the magnets steering the beams on a circular path stop working, a common event during power failures. Devices called Beam Loss Monitors detect any threatening changes in the beams and can power-up a string of five "kicker magnets" in just two to three microseconds, fully stopping the beam within 21 microseconds. Still says the kicker magnets must activate so quickly to catch the small gap between each bunch of particles zipping around the Tevatron. If the kickers are powered up too late, the beams move off-course and damage the accelerator equipment.

Once energized, the magnets direct the beams downward into a solid abort block. "The actual abort blocks where [particle beams] are stopped are not as sexy as you might think," Still said. A modified Tevatron magnet, filled with aluminum and graphite disks instead of superconducting material, serves as the heat-absorbing end to each particle beam's life.

To view important components of the Tevatron, visit the online [Fermilab](#)

Grammy winners Donohue and Levy to perform July 8



The two will perform in the Ramsey Auditorium on Saturday, July 8 at 8 p.m. Tickets are still available.

Grammy Award winners Pat Donohue and Howard Levy will perform their unique mix of jazz, folk, blues and more at Fermilab's Ramsey Auditorium on Saturday, July 8 beginning at 8 p.m.

Donohue, a renowned finger picker, is the guitarist and singer/songwriter from National Public Radio's "A Prairie Home Companion." Levy is considered to be the world's most advanced diatonic harmonica player; he has performed jazz, pop, rock, world music, Latin, classical, folk, blues and country. For further information or telephone reservations, call 630/840.ARTS (2787) weekdays. Or check out the Art Series [web page](#).

Accelerator Update

June 26 - 27

- Two store provided 21 hours and 8 minutes of luminosity
- Linac has Klystron problems
- Attempt to stash failed
- Nitrogen Dewar develops leak

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

Cream

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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--Dave Mosher

Photo of the Day



TD's Terrill Karas found this praying mantis when she was on her way to lunch near the Technical Division trailers. Terrill thinks the praying mantis might have been eating a wasp. "It [the meal] was a stinging insect of some kind...it looked like a wasp shortly before I took this picture," she writes. "You can see the stinging end of the abdomen lying there." (Click on image for larger version.)

In the News

The Beacon News

June 25, 2006:

And where did he get all that money?

Fermilab finds bank book from 1920s

On Dec. 3, 2005, a pre-Depression-era "Aurora National Bank" bank book literally fell into the hands of a worker doing floor repairs in the 1880s McKee farmhouse, one of the original farmsteads of the 6,800-acre site of Fermi National Accelerator Laboratory.

The last deposit was made on Dec. 3, 1927 — the same day it dropped out of the ceiling nearly 80 years later.

Just as physicists uncover the mysteries of the universe, members of Fermilab's history committee are trying to trace the owner of the old bank deposit book, as well as how, when and why it became

Fermilab Barnstormers

The Fermilab Barnstormers will have a set of trainer airplanes available to fly every Wednesday at noon, at the Model Airplane field across from the Pioneer Cemetery (rain date on Thursday). Come try your hand at flying models and learn what our hobby can offer. We will sell tickets at each session for a July raffle of a radio controlled aircraft. For further information, please contact Jim Zagel, x4076, or Rick Mahlum, x4316.

Unix Users Meeting

There will be a Unix users' meeting in Curia II today from 1pm-2:30pm. SL updates and security topic of the month will be discussed.

Housing Assignments for Fall 2006 and Spring 2007

The Fermilab Housing Office is now taking requests for houses, apartments, and dormitory rooms for fall 2006 and spring 2007. Since there will be a large influx of experimenters, and requests are anticipated to be in excess of our available facilities, you are urged to submit your request for reservations to the Housing Office by Monday, July 3, 2006. Requests can be made for any period and need not commence on any particular date. Individual housing requests can be made by using our [online housing request form](#), but requests for multiple housing units are best handled by direct email to housing@fnal.gov. For further information, please contact the Housing Office at: (630) 840-3777 or email housing@fnal.gov.

Women wanted for sports

Fermilab contractor Heather Hall is trying to organize an all-women's sports league

lodged between the floor boards.

Fermilab worker Daniel Lee was breaking through the ceiling of the farmhouse's living room to repair the floor joist in a second floor dorm room when the bank book dropped to the floor, along with a bundle of ceiling material.

The small brown book has the engraving "Aurora National Bank — The Bank under the Chime Clock" and the ink is now a faded gold. The owner's name, "A. C. Logan" is printed behind a clear plastic window.

[Read More](#)

here at Fermilab, picking the sport that is in greatest demand among female employees, users and contractors. Please send me an email at heather.hall@ge.com (or leave me a voicemail at x4915), listing your interest level and what sport you wish was available to you.

[Upcoming Activities](#)