

Calendar

Thursday, March 3

2:30 p.m. Theoretical Physics Seminar - Curia II

Speaker: V. Cirigliano, California Institute of Technology

Title: Neutrinoless Double Beta Decay and Lepton Flavor Violation

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

Friday, March 4

THERE WILL BE NO DIRECTOR'S COFFEE BREAK TODAY

THERE WILL BE NO JOINT

EXPERIMENTAL THEORETICAL PHYSICS SEMINAR THIS WEEK

2:15 p.m. NuMI/MINOS Dedication Ceremony - Ramsey Auditorium

3:30 p.m. Lab-Wide Party - Atrium

8:00 p.m. Fermilab Internation Film Society - Auditorium

Tickets: Adults \$4

Title: Det Sjunde Insglet (The Seventh Seal)

Saturday, March 5

8:00 p.m. Fermilab Arts Series - Auditorium

Tickets: \$18/\$9

Title: Dervish

Weather

Employees, Users and Contractors Invited to Attend NuMI/MINOS Dedication on Friday



MINOS Near Detector (Photo: Peter Ginter)

(Click on image for larger version.)

Fermilab employees, users and contractors are invited to attend the dedication ceremony for the NuMI/MINOS experiment in Ramsey Auditorium at 2:30 p.m. on Friday, March 4. Speaker of the House Dennis Hastert and DOE Office of Science Director Ray Orbach will formally launch NuMI/MINOS. A lab-wide party, sponsored by the URA, will be held in the Atrium from 3:30 p.m. to 6:30 p.m., following the Auditorium ceremonies.

Portions of Ramsey Auditorium will be reserved for MINOS collaborators, NuMI project staff, and special guests that include congressional staffers, DOE officials, members of the press and other VIPs. Invitations have already been sent via email to the people who will have reserved seats in the auditorium. Ushers will be on hand to direct people to their seats. Overflow seating will be available only after the auditorium is completely full.

All attendees should be seated in Ramsey Auditorium by 2:15 p.m. A slide

Friday: Have Lunch with the Office of Science Director

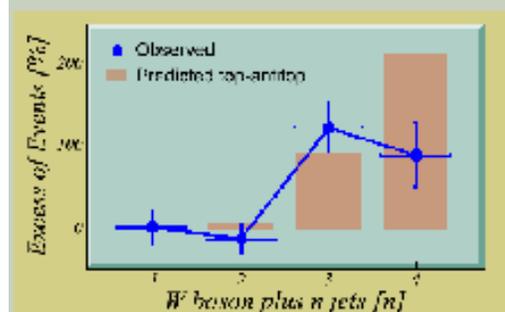
Dr. Raymond Orbach invites Fermilab and DOE employees to stop by to talk with him during lunch in the cafeteria on Friday. Dr. Orbach will help to dedicate the NuMI/MINOS project on Friday afternoon.



Dr. Raymond Orbach

Fermilab Result of the Week

Muons Mark the Top Quark at CDF



Observation of top-antitop production, appearing as an excess of events over other known processes. The excess appears in events with one W boson and three or more jets-- one of which contains a muon-- a characteristic signature of top-antitop pairs. (Click on image for larger version.)

Thirty five miles west of Chicago two detectors with the cryptic names CDF and DZero attract hundreds of scientists while recording the highest energy collisions on Earth. In the heart of Chicago a building known as the John Hancock Center attracts scores of tourists with its elegant appearance. Both unique masterpieces, they have one unmistakable difference: the skyscraper is massively bigger, and much taller, than the detectors.



Sunny 34°/21°

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Thursday, March 3

Minnesota Wild Rice with Chicken Soup

Tuna Melt on Nine Grain \$4.75

Breaded Veal with Mushroom Cream

Sauce \$3.75

Sweet & Sour Pork over Rice \$3.75

BLT Ranch Wrap \$4.75

Double Stuffed Pizza \$3.25

Chicken Pecan Salad \$4.75

The Wilson Hall Cafe now accepts Visa, Master Card, Discover and American Express at Cash Register #1.

[Wilson Hall Cafe Menu](#)

[Chez Leon](#) will reopen starting

Wednesday, March 2. Call x4512 to make your reservation.

Search

Search the Fermilab Today Archive

Info

show on the history of the project, produced by Visual Media Services with the assistance of Cat James, will begin at that time. Employees are strongly encouraged to car-pool from other areas of the site, as parking will be at a premium. The Horseshoe will be completely reserved for participants in the ceremony. Additional parking will be available at the Lederman Science Center.

- *Elizabeth Clements*

Accelerator Update

February 28 - March 2

- During the 48 hour period Operations established one store that provided approximately 29 hours and 15 minutes of luminosity for the experiments
- NuMI and Pbar take beam
- Booster has RF problems
- TeV quench loses store before it's established
- H- Source suffers arc current problem

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

In the News

From *PhysOrg*, March 1, 2005

Fermilab experiment to beam neutrinos through Dairyland

In an effort to pin down the elusive nature and qualities of one of nature's most intriguing subatomic particles - the neutrino - scientists at Fermi National Accelerator Laboratory, or Fermilab, in Illinois will soon send a beam of the ghostlike particles coursing through subterranean Wisconsin to a detector deep in a mine in northern Minnesota.

Mass is a familiar concept in everyday life, but oddly it is one of the least understood properties in particle physics. Matter in the universe appears to be made up of fundamental building blocks called quarks and leptons, but the origin of the masses of the building blocks remains a mystery. Therefore the top quark, more than forty times heavier than any other quark or lepton, could be playing a special yet unknown role in physics. Highly unstable, top quarks decay into one W boson (the particle carrier of the weak nuclear force) and one b-quark. The b will bind with other quarks leading to a jet of particles, and the identification of these rapidly escaping b's is the key to detecting top quarks.

The CDF Collaboration now measures the production rate, or cross section, of top-antitop pairs at the Tevatron by using a technique that spots b's by looking for muons in jets. A number of b's in fact will undergo a semileptonic decay, a type of decay which often leads to the production of a muon. Counting the number of events containing one W along with muons in jets, in excess of those expected from background sources, yields a determination of the top production probability. The result, a cross section of 5.2 ± 2.7 pb, gives physicists at CDF yet one more tool to test the properties of top quarks, the skyscrapers of all elementary particles.

Fermilab Today is online at:

<http://www.fnal.gov/today/>

Send comments and suggestions to

today@fnal.gov

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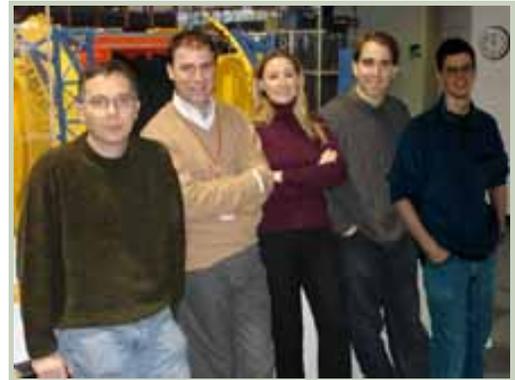
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The goal of the \$170 million project is to help scientists gain some accurate measurements of a particle that has practically no heft.

[read more](#)



The CDF top quark muon taggers. Left to right: Tony Liss, Lucio Cerrito, Anyes Taffard, Greg Veramendi and Ulysses Grundler (not pictured: Enrico Fermi). (Click on image for larger version.)

[Result of the Week Archive](#)

Announcements

Bodman Testifies on Budget

Secretary of Energy Samuel W. Bodman will testify before the Senate Energy and Natural Resources Committee Thursday, March 3 at 10 a.m. (Eastern time) regarding the Department of Energy's FY 2006 budget request. [Streaming audio](#) is available online.

Cafeteria Closing Early on Friday

The Wilson Hall Cafe will close at 1:00 p.m. on Friday in preparation for the lab-wide party, which will be from 3:30 p.m. to 6:30 p.m. in the Atrium.

Fermilab Employee Art Show

The deadline to submit an intent application for the Fermilab Employee Art Show is March 10. Artwork must be submitted to the gallery on April 4 and April 5. The Artist Reception for the show will be on April 20 from 5:00 p.m. to 7:00 p.m. Employees will pick up their artwork on June 1 and June 2. Contact [Georgia Schwender](#) for more information. An [application](#) is available to download online.

Fermilab Film Series

The Fermilab Film Series will present Seventh Seal on Friday, March 4 at 8:00 p.m. in Ramsey Auditorium.

[more information](#)

Fermilab Arts Series

The Fermilab Arts Series will present "Dervish" on Saturday, March 5 at 8:00 p.m. in Ramsey Auditorium.

[more information](#)

[Upcoming Activities](#)