

Calendar

Friday, March 31

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Joint Experimental Theoretical Physics Seminar - 1 West

Speaker: S. Mrenna, Fermilab

Title: LHC Phenomenology

Monday, April 3

11:00 a.m. Academic Lecture Series - Curia II

Speaker: S. Dodelson, Fermilab

Title: The Smooth Universe - Course 6 (1st Lecture)

2:30 p.m. Particle Astrophysics Seminar - Curia II

Speaker: K. Smith, University of Chicago

Title: Fast PowerSpectrum Estimators Which Do Not Mix E and B Modes

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. All Experimenters' Meeting -

Special Topics: COUPP Bubble

Chamber Test, MI Beam Position Monitor

Upgrade, NuMI Horn Repair, Capture

Cavity II in Meson

Weather



Chance of Showers **61°/39°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

April Fool!

Hope the 9:00 a.m. edition of [Fermilab Today](#) made you laugh! Here is the real issue. (Really.)

Memorial service for Doug Michael today at 1:30 p.m.

Employees and users are invited to attend a memorial service at Fermilab for neutrino physicist and MINOS co-spokesperson Doug Michael today at 1:30 p.m. Michael died on December 25, 2005 after a year-long battle with cancer. The service will be held at the MINOS detector building (a short walk from the Lederman Center) and includes the planting of 5 trees. Parking is limited, we encourage you to carpool. Parking will be available in the graveled areas at MINOS, along the roadside leading to MINOS, and at the Lederman Center. Click [here](#) to see parking areas (highlighted in red).

A man who keeps things running: Dennis McKenna



Dennis McKenna recently celebrated 15 years as a Fermilab employee.

MINOS unravels mystery of neutrino disappearance



The MINOS near detector, located at Fermilab, records the composition of the neutrino beam as it leaves the Fermilab site. The MINOS far detector, located in Minnesota, half a mile underground, again analyzes the neutrino beam. This allows scientists to directly study the oscillation of muon neutrinos into electron neutrinos or tau neutrinos under laboratory conditions.

The MINOS collaboration announced the first results of a new neutrino experiment yesterday afternoon. Sending a high-intensity beam of muon neutrinos from the lab's site in Batavia, Illinois, to a particle detector in Soudan, Minnesota, scientists observed the disappearance of a significant fraction of these neutrinos. The observation is consistent with an effect known as neutrino oscillation, in which neutrinos change from one kind to another. The Main Injector Neutrino Oscillation Search (MINOS) experiment found a value of $\Delta m^2 = 0.0031 \text{ eV}^2$, a quantity that plays a crucial role in neutrino oscillations and hence the role of neutrinos in the evolution of the universe.

"Only a year ago we launched the MINOS experiment," said Fermilab Director Pier Oddone. "It is great to see that the experiment is already producing

Friday, March 31

- Old Fashioned Ham & Bean
- Black & Blue Cheese Burger
- Summer Herb Cod
- Stuffed Manicotti
- Bistro Chicken & Provolone Panini
- Assorted Personal Size Pizzas
- Carved Top Round of Beef

[Upcoming Menu](#)**Chez Leon****Wednesday, April 5****Lunch**

- Asian Grilled Beef Salad
- Cold Lime Souffle w/Coconut Cookies

Thursday, April 6**Dinner**

- Minestrone
- Grilled Lamb Chops
- Celery Root & Potato Mash
- Vegetable of the Season
- Cassata

[Chez Leon Menu](#)

Call x4512 to make your reservation.

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"FESS is responsible for utilities, sewer system, gas lines, you name it," says Dennis McKenna. "You don't hear much about us as long as everything's going smoothly." McKenna has been an employee in the Facilities Engineering Services Section (FESS) for 15 years. As a FESS worker, he spent 13 years as a maintenance mechanic and more recently has been involved with fire protection in the Operations & Maintenance department of FESS. Just two of the different fire protection systems that McKenna maintains include aspirated smoke detectors, which detect microscopic smoke particles, and linear heat detectors, which activate when their wires cross as too much heat melts their heat-sensitive coating.

Preventative maintenance work in the tunnels has been keeping McKenna busy during the current Tevatron shutdown. Among other jobs, he and coworkers had to replace failed horn strobes, the flashing audible alarms that alert people of fires, in the tunnels.

"I love to keep things running," says McKenna, sharing a sentiment that he applies to hobbies as well as his profession. McKenna races sports bikes and recently won the Iron Butt Award for riding over 1,000 miles in 24 hours around Lake Michigan. "I found a 1972 Husqvarna in Virginia and drove out over the weekend to pick it up," he says. He plans to try his luck at racing vintage motocross bikes, like the Husqvarna, this summer.

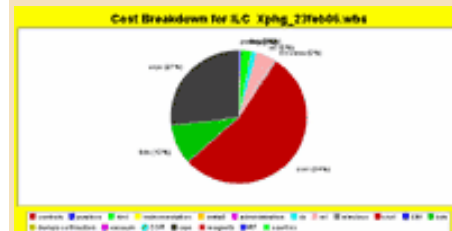
—Dawn Stanton

"The Smooth Universe," lectures start Monday, April 3

important results, shedding new light on the mysteries of the neutrino."

—Kurt Riesselmann

[Read full release](#)

ILC NewsLine**Costing guidelines for the reference Design Report available online**

Example cost breakdown from the Design & Cost Board Report presented at the Bangalore Meeting. (Click on image for larger version.)

While figuring out how to smash electrons and positrons at an energy level of 500 GeV in a tunnel that is approximately 25 kilometers long could be considered a minor challenge, one of the largest hurdles for the International Linear Collider is developing accurate costing estimates. While at first estimating the cost of something might not sound that hard (some of us do it almost every day for groceries, house supplies, and of course shoes), there are a number of factors that will make costing an extremely complicated process for a global project like the ILC.

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Announcements

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The past decade has seen an explosion in the quantity and quality of cosmological data. Coincident with this, we have developed a coherent picture of the evolution of the universe, one which relies heavily on physics beyond the Standard Model. These lectures provide an overview of this picture, with an emphasis on the evidence for dark matter, dark energy, and inflation. This evidence comes from observations of distant supernovae, anisotropies in the cosmic microwave background, and surveys of the matter distribution in the universe. (See calendar for details.)

Milestones



35 Year Service Awards: R. Lootens, D. Sigmon, C. Lindenmeyer, D. Bogert. (Click on image for larger version.)



30 Year Service Awards: S. Hays, J. Loskot, P. Oddone (representing the Directorate), C. Briegel, M. Olson. (Click on image for larger version.)

In the News

Lafleur Family Fund Collection

Following Fermilab employee John Lafleur's recent death, there is a site collection effort for the "Lafleur Family Fund". Account # 1002435422 has been set up at the Old Second Bank of Batavia to receive donations directly, or contact Bill Benson (whbenson@fnal.gov) or Greg Gilbert (gilbert@fnal.gov) of FESS/OPs, who are accepting the donations and making deposits to the fund.

Power Outage

There will be a site power outage on this coming Monday, April 3, from 7:00 to 7:30 am as the power source for the site is switched between substations. While servers and systems located in the Feynman Computing Center should be unaffected, most of the rest of the site will be without power. Desktop workstations will likely lose power. Also, on Saturday, April 1, DZero will not have power.

Workstations and printers should be shutdown and powered off prior to the start of this outage and not restarted until 10 minutes after power is restored. Business Systems production systems will run uninterrupted, but our test and development servers (located in Wilson Hall) will need to be shutdown for this outage.

Note that a similar outage will occur on Monday, April 24 (**not** April 1, as stated in yesterday's edition of Fermilab Today), from 7:00 to 7:30 am. The impact of this second outage is expected to be the same as the first.

Professional Development

New classes are always being added to the professional development schedule.

BBC News, March 31, 2006: Light shed on mysterious particle

Physicists have confirmed that neutrinos, which are thought to have played a key role during the creation of the Universe, have mass.

This is the first major finding of the US-based Main Injector Neutrino Oscillation Search (Minos) experiment.

The findings suggest that the Standard Model, which describes how the building blocks of the Universe behave and interact, needs a revision.

Neutrinos are believed to be vital to our understanding of the Universe. But scientists know frustratingly little about these fundamental particles.

[Read More](#)

For the most up-to-date course offerings, go to [the webpage](#).

New [classified ads](#) have been posted on Fermilab Today.

[Upcoming Activities](#)