

## Calendar

### Friday, May 12

**1:30 p.m.** Briefing on EPP2010 report - Ramsey Auditorium

**3:30 p.m.** DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

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

Speaker: G. Manca, University of Liverpool

Title: Searches for Supersymmetry in Multilepton Signatures With the CDF Detector

**8:00 p.m.** Fermilab International Film Society presents *Monty Python and the Holy Grail* - Ramsey Auditorium

### Monday, May 15

**2:30 p.m.** Particle Astrophysics Seminar - Curia II Speaker: A. Crotts, Columbia University

Title: Liquid Mirror Telescopes

**3:30 p.m.** DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ALL EXPERIMENTERS' MEETING THIS WEEK

For links to events, click [here](#).

## Weather



Occasional Rain **45°/39°**

[Extended Forecast](#)

[Weather at Fermilab](#)

## Current Security Status

[Secou Level 3](#)

## EPP2010 Committee members will speak today

The [EPP2010 report](#) made headlines a couple of weeks ago. What does it say about the future of Fermilab? Find out more today at 1:30 in the Ramsey Auditorium, where EPP2010 Committee member Chuck Shank and Committee co-chair Sally Dawson will speak to the Fermilab community. Everyone at Fermilab is invited to attend.

## What's on your chalkboard?

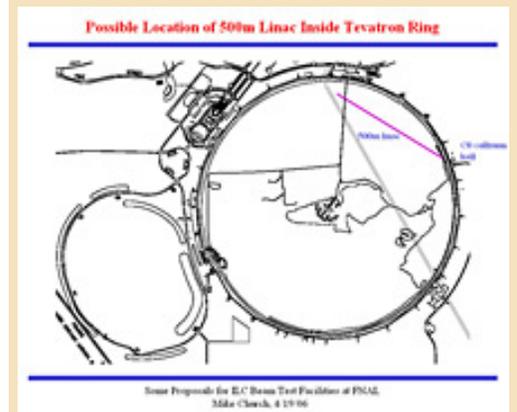


In addition to shedding light on dark matter and its possible explanation through supersymmetry, Marcela Carena's chalkboard illustrates the mysteries of matter-antimatter asymmetry. (Click on image for larger version.)

In the top left corner of theoretical physicist Marcela Carena's chalkboard, next to a paper flower from her 10-year-old son, lies a graph of cosmic significance. The graph shows the range at which the Tevatron should be able to detect "stops," the supersymmetric partners to top quarks, whose detection could radically alter the way we think about the universe. Supersymmetry fills many of the holes in our understanding of the universe and demands that every particle we know have a mirror particle.

## ILC NewsLine

## Possible Proposal Presented for ILC Test Beam Facilities at Fermilab



One possible location for placing a linac inside the Tevatron ring as a test facility for the ILC.

Before the International Linear Collider can be built, physicists and engineers must prove that the proposed baseline design will achieve the desired physics, requiring testing and R&D at laboratories and institutions around the world. As part of this process, Fermilab's Mike Church recently shared with attendees, at a weekly ILC R&D meeting, one possible proposal for ILC Test Beam Facilities that would utilize the lab's already existing infrastructure.

In an early stage of development and not yet endorsed by Fermilab management, the proposal will continue to be evaluated and reviewed not only by the lab but also by the Global Design Effort and the Department of Energy. "This is a work in progress," Church said. "We haven't thought too seriously about cost, location or a timeline yet. The tiered proposal allows you to make more rational decisions about what you're getting."

## Wilson Hall Cafe

### Friday, May 12

- Cream of Wild Mushroom
- Blackened Fish Filet Sandwich
- Southern Fried Chicken
- Tuna Casserole
- Eggplant Parmesan Panini
- Pizza Supreme
- Assorted Sub Sandwich

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

### [Upcoming Menu](#)

## Chez Leon

### Wednesday, May 17

#### Lunch

- Antipasto Salad
- Apricot Mousse with Butter Cookies

### Thursday, May 18

#### Dinner

- Fresh Mozzarella & Tomato Salad
- Garlic Shrimp w/Red Peppers & Wild Mushrooms
- Lemongrass Rice
- Brandi Flan

### [Chez Leon Menu](#)

Call x4598 to make your reservation.

## Search

### Search the Fermilab Today Archive

## Info

"We're looking for stops at the Tevatron, but they are difficult to find. A proton is [made of] a lot of things," Carena says. She scratches two sets of three lines, representing the three quarks that make up a proton, and has them converge in a messy "V," representing the collision between two protons. But since electrons are themselves fundamental particles-- Carena accents this with a clean two-lined "V" representing the collision between an electron and an anti-electron, or positron--the ILC will be a "cleaner" environment than the Tevatron's proton-antiproton collider, making it easier to spot stops and other supersymmetric particles.

Supersymmetry provides a possible candidate for dark matter, the stuff that makes galaxies rotate faster than they should. In the top center of Carena's board, a diagram shows how an electron-positron collision could produce a pair of stops (t), which would in turn decay into neutralinos (x)--the lightest neutral supersymmetric particles, whose weak interactions with normal matter make them strong candidates for dark matter. By making precise measurements of the masses and interactions of SUSY particles at collider experiments, physicists can infer the properties of dark matter particles and compute the amount of dark matter in the universe. If their measurements match those of astrophysicists, "then you know what you're seeing is dark matter," Carena said.

--*Jennifer Lauren Lee*

## Photo of the Day

## [Read More](#)

—*Elizabeth Clements*

## Announcements

### Health and Fitness Day, May 17

This year's event is from 11:30 a.m. to 1:30 p.m. on Ring Road. Participants may sign in, pick up a game ticket and grab a bottle of water at A1, then walk, run, rollerblade, or bike around the ring.

### Batavia Road entrance closed to cars and bicycles

The Batavia Road entrance is closed for renovation now through Monday, May 22 at 4:00 p.m. During this time, the City of Warrenville will also be repaving roadways and carrying out other construction work along Batavia Road. Delays are expected to continue until early June, even after the entrance re-opens. Drivers and bicyclists should use Pine and Wilson Street entrances until the work is completed. Pine Street entrance hours are 6:00 a.m. to 8:00 p.m. for the general public and 24 hours a day, 7 days a week for employees. The Wilson Road entrance hours are 6:00 a.m. to 6:00 p.m., Monday through Friday. For more information, contact Tom Prosapio at [prosapio@fnal.gov](mailto:prosapio@fnal.gov)

### Main Ring Road, near A0, closed

A section of Main Ring Road in front of the A0 storage building is closed until 5:00 p.m. today. The emergency closure is necessary to replace an oil switch. People using the A0 lot should allow time for a 4-mile detour. Detour signs will be posted.

### Power Outage

On Saturday, May 20, there will be a

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**Hawks at Fermilab:** Fermilab physicist Tim Koeth found this red-tailed hawk sitting on a lamppost just south of the Main Booster last October. Koeth sees this hawk often, and thinks he may live here. "He's a local for sure; I call him the F4 Hawk," said Koeth. (Click on image for larger version.)

### In the News

#### ***Chicago Chronicle,*** **May 11, 2006:**

#### **National academies elect five University professors to their 2006 memberships**

Two University faculty members, Francisco Bezanilla, Professor and Pritzker Scholar in Pediatrics and the Institute for Molecular Pediatric Science, and Melvyn Shochet, the Elaine M. & Samuel D. Kersten Jr. Distinguished Service Professor in Physics, the Enrico Fermi Institute and the College, were among 72 individuals elected to the National Academy of Sciences on Tuesday, April 25. Election to the 143-year-old academy is considered one of the highest honors that can be awarded to an American scientist. The election of Bezanilla and Shochet brings to 41 the current number of Chicago faculty elected to membership.

[Read More](#)

major power outage in Wilson Hall from 7:00 a.m. to 5:00 p.m. Please plan accordingly.

#### **Folk Club Barn Dance**

There will be a Fermilab Folk Club Barn Dance Sunday, May 14 at 6:30 p.m. with music by Dr. Hojka's Medicine Show and calling by Lisa Ornstein. More information is available on [the website](#).

#### **Fermilab Association of Rocketry: Re-scheduled**

Due to forecasted weather conditions on Saturday, May 13, this week's launch will be re-scheduled for Saturday, May 20th from 10am to 3pm.

#### **Team rosters needed for summer volleyball league**

The recreational summer volleyball league will start on May 22. Interested teams and individual players should contact league representative Jenny Thorson, [jthorson@fnal.gov](mailto:jthorson@fnal.gov) or call x3470. Team rosters need to be submitted to Jenny by Monday, May 15. For more information check the volleyball [web page](#).

#### **Save the date**

The Fermi Singers are going to have a concert on June 2, more information will be posted soon.

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

#### **[Upcoming Activities](#)**