

## Calendar

**Tuesday, March 3**  
**3:30 p.m.**  
 DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
 THERE WILL BE NO  
 ACCELERATOR PHYSICS  
 AND TECHNOLOGY  
 SEMINAR TODAY

**Wednesday, March 4**  
**3:30 p.m.**  
 DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
**4 p.m.**  
[Fermilab Colloquium](#) - One  
 West  
 Speakers: Simon Swordy and  
 Heinrich Jaeger, University of  
 Chicago  
 Title: Current Research at the  
 University of Chicago Enrico  
 Fermi Institute and James  
 Franck Institute

[Click here for NALCAL,](#)  
**a weekly calendar with links**  
**to additional information.**

## Weather

 **Mostly cloudy**  
 31°/22°

[Extended Forecast](#)  
[Weather at Fermilab](#)

## Current Security Status

[Secon Level 3](#)

## Wilson Hall Cafe

**Tuesday, March 3**  
 - Tomato bisque  
 - Lemon pepper club  
 - Beef fajitas  
 - Smart cuisine: Korean garlic  
 chicken  
 - Grilled chicken Caesar wrap  
 - Assorted slice pizza  
 - Rio Grande taco salad

[Wilson Hall Cafe Menu](#)

## Chez Leon

## Feature

### Teachers learn from Golden Apple winner at Fermilab

Remember the old adage that it's better to teach someone to fish rather than give him or her a fish? Well, the same is true in physics, according to Samuel L. Dyson, a renowned local high school physics teacher.



Samuel Dyson  
 Image courtesy of  
 IMSA

Dyson gave a seminar at Fermilab's "High Energy... High Ambitions" event on February 18. As a teacher at Walter Payton High School in Chicago, he emphasizes teaching students to become life-long learners.

"It's important we convey the subject matter not as something that is consumed, and then you move on," Dyson said.

About 230 students from nine Chicagoland high schools participated in "High Energy ... High Ambitions," which celebrated Black History Month with presentations by Fermilab staff who are members of under-represented minorities.

While students learned about careers in physics and other areas at Fermilab, 30 teachers listened to Dyson, who won the Golden Apple Award for teaching in 2007.

Dyson said he discourages rote memorization in learning math and science. Instead he tries to inspire curiosity in his students.

"That inquiry is the itch some kids will spend the rest of their lives trying to scratch," Dyson said.

-- Kristine Crane

## Photo of the Day

## Director's Corner

### Washington week in review

Monday through Thursday was a busy week for us in Washington, D.C. On Monday I made visits to congressional offices and the Office of Management and Budget. That evening, I attended a dinner with fellow laboratory directors to thank Ray Orbach and Jack Marburger for their many years of devoted service to the scientific community during the previous administration. DOE Secretary Steve Chu graciously dropped by the dinner to add his thanks to Ray and Jack. The HEPAP meeting took place Tuesday and Wednesday with many detailed presentations about DOE and NSF programs and an [opening address](#) by Office of Science acting director Pat Dehmer. Most importantly for us she described Secretary Chu's priorities, in which basic science has a prominent position. On Wednesday the executive committee of the National Director's Council (San Aronson, Thom Mason, Tom Hunter and myself) had an extended meeting with Secretary Chu. On Thursday, senior laboratory managers made a full-day-full-detail budget presentation to all the managers of the DOE Office of High Energy Physics.



Pier Oddone

In all of these meetings we gathered information to help us navigate the turbulent seas we are in. The omnibus bill has passed the House and debate in the Senate started yesterday, including a motion from some quarters to extend the continuing resolution for the rest of the year. The CR we are operating under expires this coming Friday. The omnibus bill in its present form is favorable to the Office of Science, and erases the terrible cuts of last year for high energy physics. But it is not yet the law. We have a fairly clear idea what we might expect from the stimulus package, but no official word yet. From President Obama's budget outline for future years and from the budget exercises we were asked to do we can guess what the administration is likely to propose for FY10 and FY11, difficult years given the overall need to get deficits under control. From

### Wednesday, March 4 Lunch

- Italian sausage puttanesca
- Mixed green salad with tangy herb vinaigrette
- Berry filled brown sugar meringues

### Thursday, March 5 Dinner

- Beef fondue with assortment of sauces
- Romaine w/parmesan vinaigrette
- Banana split tartlet

### [Chez Leon Menu](#)

Call x3524 to make your reservation.

### Archives

### [Fermilab Today](#)

### [Result of the Week](#)

### [Safety Tip of the Week](#)

### [ILC NewsLine](#)

### Info

### [Fermilab Today](#)

is online at:

[www.fnal.gov/today/](http://www.fnal.gov/today/)

Send comments and suggestions to:

[today@fnal.gov](mailto:today@fnal.gov)

## A toast to former DESY Director Albrecht Wagner



Albrecht Wagner toasts his final day as DESY director on March 2. Helmut Dosch has taken office as the new director. Images and more information about the March 2 switch are available [here](#).

### In the News

## Portrait of a man at the beginning of time

From *Times Online*, March 2, 2009

*Professor Peter Higgs's theory of the God Particle - or Higgs boson - is celebrated with a stunning portrait by Ken Currie, while the proof may yet come from an experiment by the Large Hadron Collider at CERN, in Geneva*

With a pair of broken glasses in his hand, he seems an unlikely contender for a Nobel Prize, but a painting of Peter Higgs, the renowned Edinburgh physicist, has been unveiled which portrays him at the moment when his celebrated theory of the "God Particle" is finally proved correct.

The portrait by Ken Currie shows the professor who, 45 years ago, postulated the existence of the particle known more properly as the Higgs boson which gives mass to all things in the Universe.

His theory is as yet unproven. Professor Higgs had hoped last September that his moment had come when a series of experiments began in the Large Hadron Collider, the 27km-long particle accelerator deep underground at the CERN laboratories in Geneva, Switzerland.

The tests were designed to recreate the extreme conditions immediately after the Big Bang, the event that most cosmologists believe created the Universe. An electrical fault, however, caused the experiments to be postponed for 12 months.

[Read more](#)

Secretary Chu we learn that Office of Science will do well in the out-year budget projections.

If I highlight one point, it has to be the central role that the DOE plays in this administration's policies and in the American Reinvestment and Recovery Act (ARRA). The department will invest tens of billions of dollars in a range of programs not only to stimulate the economy but to move the country towards energy efficiency and renewable resources. In this task Secretary Chu emphasized the great responsibility and opportunity for the department and the perils associated with such an ambitious program. He asked for help from the laboratories where great technical expertise reside: First by making personnel available to the DOE in Washington as detailees/IPAs to help in the technical evaluation of the many new programs; and second, by the laboratories engaging and assisting state agencies on a regional basis to help them apply for and deploy effectively the ARRA funds they would receive from DOE. Secretary Chu is not looking for a change of mission for single-program laboratories like ours, but temporary help during this hour of need when the DOE's budget is effectively doubled or tripled. We all have to step up to the plate in this critical moment.

### Accelerator Update

#### Feb. 27 - March 2

- Three stores provided ~35 hours of luminosity
- Complex recovers from Kautz Rd power glitch
- Booster suffers from RF trips

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

### Announcements

[Have a safe day!](#)

[Phillips Park Golf League](#)

[New electronic org chart](#)

[Muscle Toning classes](#)

[Kyuki Do classes - March 30](#)

[Sounding of outdoor sirens, March 2](#)

[Arianna String Quartet performs in Gallery Chamber Series - March 8](#)

[On-Site Housing - Summer 2009 - deadline](#)

## Do you have an eye for entanglement?

From *Physicsworld.com*, Feb. 26, 2009

Experiments that reveal the weirdness of the quantum world usually involve precise and highly specialized equipment. But now physicists in Switzerland and the UK have proposed a way of using human vision to observe the purely quantum effect of "entanglement".

The experiment — which has yet to be performed in the lab — would involve entangling a pair of photons and then creating thousands of identical copies of one of the pair such that they could be seen by the human eye.

Entangled particles have a much stronger relationship than that allowed by classical mechanics. For example, the polarization of one photon is revealed instantly by measuring the polarization its entangled partner, regardless of the distance between the photons.

The new experiment, which has been proposed by Nicolas Gisin and colleagues at the University of Geneva and University of Bristol, would first involve creating a pair of entangled photons. This could be done, for example, by passing light through a non-linear crystal in which a higher-energy photon is absorbed followed by the emission of two lower-energy photons.

[Read more](#)

[- March 9](#)

[Deadline for The University of Chicago Tuition Remission Program - March 12](#)

[Fermilab Arts Series presents Solas - March 14](#)

[Altium Designer Lunch and Learn Seminar - March 17](#)

[Excel 2007 Pivot Tables class offered March 18](#)

[PowerPoint 2007: Intro class offered March 19](#)

[Bulgarian Dance Workshop, March 19](#)

[URA visiting Scholars applications due March 20](#)

[NALWO Adler Planetarium Trip March 21](#)

[Child Care program offered - March 24](#)

[Publisher 2007: Intro class April 1](#)

[Conflict Management & Negotiation Skills class April 1](#)

[Outlook 2007 New Features class offered April 8](#)

[SciTech summer camps](#)

[English Country Dancing, March 1](#)

[Introduction to LabVIEW class March 5](#)

[Additional Activities](#)

[Submit an announcement](#)