

## Calendar

### Tuesday, September 26

**3:30 p.m.** Director's Coffee Break - 2nd floor crossover

**4:00 p.m.** Fermilab Colloquium (NOTE DATE) - 1 West

Speaker: D. Clowe, Ohio University  
Title: A Direct Empirical Proof of the Existence of Dark Matter

THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

### Wednesday, September 27

**3:30 p.m.** Director's Coffee Break - 2nd floor crossover

THERE WILL BE NO FERMILAB ILC R&D MEETING THIS WEEK

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

## Weather



Sunny 71°/51°

[Extended Forecast](#)

[Weather at Fermilab](#)

## Current Security Status

[Secou Level 3](#)

## Wilson Hall Cafe

## Cybersecurity of great importance to Pyke, DOE



DOE CIO Pyke (left) tours the Main Control Room with AD Deputy Head Paul Czarapata.

DOE Chief Information Officer Tom Pyke and his senior policy adviser, Rocky Campione, visited Fermilab yesterday and took a tour of the lab. After seeing the Fermilab site from Wilson Hall's 15th floor, they toured the linac gallery, Main Control Room, CDF and the Feynman Computing Center. They also met with astrophysicists and LHC computing experts.

In a lunchtime presentation, Mark Leininger, the lab's computer security manager, informed Pyke of cybersecurity at Fermilab, outlining Fermilab's efforts to protect the Fermilab computers from unauthorized access while providing thousands of scientists from around the world with access to scientific information. "Fermilab is an example that one size doesn't fit all," said Pyke, who is responsible for guiding DOE's effective use of information technology and for managing DOE's IT resources.

To learn more about Pyke, his engineering background and his 30-year career in information technology, read this recent [article](#) in *Federal Computer*

## Director's Corner

### Harvest



In a few days we will close fiscal year 2006. It has been a remarkable year with a rich harvest of physics results and much improved accelerator performance. Also, we overcame difficult challenges such as the three breakdowns of the Tevatron late in the last running cycle and the tritium and focusing horn issues associated with the NuMI beamline.

Most remarkable is the result on matter-antimatter oscillations presented by CDF last Friday: a more than five sigma discovery of the rapid mixing of the  $B_s$  and anti  $B_s$ . Last year I showed the EPP2010 Committee that we expected to reach this level of measurement only with three inverse femtobarns. But once data was on hand, the CDF collaborators learned how to optimize the analysis and were able to measure the frequency of oscillation to better than one percent with only one inverse femtobarn. The number obtained by the CDF collaboration is right on target for the predictions of the Standard Model--once more showing the astonishing agreement of this model with all known data. There had been hopes that  $B_s$  mixing would reveal the presence of undiscovered particles by having a

**Tuesday, September 26**

- Creamy Turkey Vegetable
- Salisbury Steaks with Mushroom Au Jus
- Chicken Cacciatore
- Italian Panini with Provolone
- Assorted Slice Pizza
- Super Burrito

[Wilson Hall Cafe Menu](#)

**Chez Leon****Wednesday, September 27****Lunch**

- Crepes w/Black Forest Ham and Gruyere
- Arugula and Sweet Red Pepper Salad
- Chocolate Mousse w/Butter Cookies

**Thursday, September 28****Dinner**

- Coquille St. Jacques
- Beef Kabob w/Vegetables
- Rice Pilaf
- Pecan Torte w/Bourbon Cream

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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[Linear Collider News archive](#)

*Week.*

*--Kurt Riesselmann*

## Fermilab receives \$5.5 million for role in Open Science Grid

*NSF and DOE Office of Science join forces to support community cyberinfrastructure with \$30 million in awards to empower scientific collaboration and computation.*

Scientists on the track to discovery got good news this month when a powerful computing tool received critical government funding. A five-year, \$30 million award to the Open Science Grid Consortium, announced by the National Science Foundation and the U.S. Department of Energy's Office of Science, will operate and expand the Open Science Grid, a computing environment used by scientists to harness computing resources and scientific data from around the world.

Fermilab will receive \$1.1 million each year, or \$5.5 million over five years, to contribute across many of the activities of the OSG. Besides OSG Executive Director Ruth Pordes, OSG security officer Don Petravick, Gene Oleynik for storage deployments, and Ian Fisk, head of US CMS user facilities, will lead the contributions to the OSG effort.

[read more](#)

## New officials elected to UEC

Fermilab's Users' Executive Committee recently held an election for new officers. You can find a list of the new officers for 2006-2007 [here](#). To learn more about the UEC, and to see minutes from the most recent meeting, [visit the UEC Website](#).

rate of oscillations that was either higher or lower than the one predicted by the Standard Model. This result places additional constraints on the kind of supersymmetry that might be discovered at the Tevatron or the LHC.

We are about to start a new fiscal year that we hope will bring equally remarkable results and hopefully not as many challenges to machine operations as we had in FY2006. In the meantime we will start the fiscal year with a big challenge of a different nature. The budget for fiscal year 2007 has not been passed by Congress and will not be passed until an undetermined time after the election. We expect to be operating on a continuing resolution where the spending is likely to be pegged at the same rate or slightly lower than last year's, with no allowance for inflation or for increased costs. The uncertainty created by the absence of a budget will require us to be extraordinarily restrictive and conservative in the first few months of the new fiscal year.

**Accelerator Update****September 22 - 25**

- Three stores provided 67 hours and 57 minutes of luminosity
- Store 4967 aborted due to controls link problem
- Pbar target stops rotating
- Linac RF station holds off beam
- TEL2 studies

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

**Announcements**

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## In the News

### **Chicago Tribune, September 26, 2006:**

#### **Quite a catch for Fermilab**

*Scientists track down 1 speedy little particle*

The discovery that a bizarre particle travels between the real world of matter and the spooky realm of antimatter 3 trillion times a second may open the door to a new era of physics, Fermilab researchers announced Monday.

The incredibly rapid commuting rate of the B-sub-s meson particle had been predicted by the Standard Model, the successful but incomplete theory aimed at explaining how matter and energy interact to form the visible universe. After 20 years of trying, scientists have now confirmed the rate, providing strong evidence for the theory.

The monumentally precise technology developed to measure the meson's back and forth dashes also may open the way to discovering a new family of fundamental particles and possibly a set of new forces that could be harnessed for technological applications, physicists suggested.

[Read More](#)

## **"Clouds to the Cosmos," this Saturday**

The Illinois Science Council presents "Clouds to the Cosmos" Saturday, September 30, at Northwestern University. The event starts at 1 p.m. with a talk by meteorologist Tad Maguire about the history and science of weather forecasting. Then, at 2 p.m., Fermilab's Mark Jackson will present an overview of cosmology and string theory. His discussion (for the non-physicist) will address questions about gravity, relativity and quantum mechanics commonly referred to as the "theory of everything." For more information, visit the Illinois Science Council [Website](#).

## **Unix Users Meeting**

There will be a Unix users meeting Wednesday, September 27 at 1:00 p.m. in the Committium (WH2SW). Topics include: accessing the security baselines from DocDB, Linux updates and Grid certificate mapping.

## **Get benefits enrollment help today**

Annual benefits enrollment began on Monday, September 25, and ends on Friday, October 6. Representatives from Blue Cross/Blue Shield and CIGNA will be available to answer questions and assist with enrollment, today, September 26, from 8:00 am until noon. They will be in the One North Conference Room of Wilson Hall.

## [Upcoming Activities](#)