

## Calendar

### Tuesday, April 11

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

BREAK - 2nd Flr X-Over

**4:00 p.m.** Accelerator Physics and

Technology Seminar - 1 West

Speaker: A. Burov, Fermilab

Title: Coherent Transverse Electron-

Antiproton Instability In the Recycler Ring

### Wednesday, April 12

**11:00 a.m.** Fermilab ILC R&D Meeting -

1 West

Speaker: P. Garbincius, Fermilab

Title: Cost Estimating Activities

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

BREAK - 2nd Flr X-Over

**4:00 p.m.** Fermilab Colloquium - 1 West

Speaker: G. Hart, Stony Brook University

Title: Solid Freeform Fabrication of

Aesthetic Objects

## Weather



Chance of Showers **75%/57°**

[Extended Forecast](#)

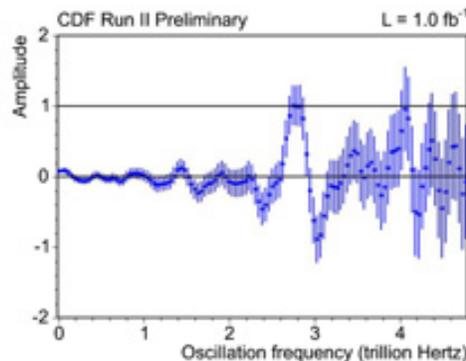
[Weather at Fermilab](#)

## Current Security Status

[Secou Level 3](#)

## Wilson Hall Cafe

## CDF measures subtle dance between matter, antimatter



The figure shows the CDF measurement of the  $B_s$  oscillation frequency at 2.8 trillion times per second. The analysis is designed such that possible oscillation frequencies have an amplitude consistent with 1.0 while those not present in the data will have an amplitude consistent with zero. Image courtesy CDF collaboration. (Click images for larger version.)

The CDF collaboration announced today (April 11, 2006) the precision measurement of extremely rapid transitions between matter and antimatter. As amazing as it may seem, it has been known for 50 years that very special species of subatomic particles can make spontaneous transitions between matter and antimatter. In this exciting new result, CDF physicists measured the rate of the matter-antimatter transitions for the  $B_s$  (pronounced "B sub s") meson, which consists of the heavy bottom quark bound by the strong nuclear interaction to a strange anti-quark, a staggering rate that challenges the imagination - 3 trillion times per second.

Dr. Raymond Orbach, Director of the DOE Office of Science, congratulated the

## Director's Corner

### The Secretary's visit



Samuel Bodman (center) and Pier Oddone (right) get a tour of the Lab. (Click on image for larger version.)

Last Friday we had the honor of hosting Secretary Samuel Bodman and his wife Diane Bodman. I accompanied the Secretary and Mrs. Bodman throughout their visit, first with an overview of the laboratory and its future as well as a view over the ring from Wilson Hall's 15th floor. We next visited the CDF Assembly Hall and its impressive detector and the Industrial Building where the Secretary could see the work we are doing for the Large Hadron Collider and hear presentations on the CMS detector. Ray Orbach, Director of the Office of Science, and Robin Staffin, Associate Director for High Energy Physics also accompanied the Secretary. Afterwards, the Secretary conducted an all hands meeting (reported in yesterday's Fermilab Today) and later met with the press. Several [articles](#) in the local press appeared the following day.

What kind of an impression does Fermilab leave with a first-time visitor? It is hard for us who work at the laboratory to step back and imagine what that impression might be. From the very beginning, it is clearly a place where

**Tuesday, April 11**

- Creamy Turkey Vegetable
- Chicken Gyros
- Salisbury Steaks w/Mushroom Au Jus
- Italian Panini w/Provolone
- Assorted Pizza
- Supreme Baked Pizza
- Chipotle Chili & Queso Nachos Supreme

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

[Wilson Hall Cafe Menu](#)

**Chez Leon****Wednesday, April 12****Lunch**

- Barbecued Pork RiBs
- Braised Greens
- Carrots Marsala
- Vernazza Cake

**Thursday, April 13****Dinner**

- Roasted Vegetable Salad w/Feta
- Veal Chops Oreganata
- Porcini and Tomato Risotto
- Swiss Chard in Garlic & Olive Oil
- Pear & Almond Strudel

[Chez Leon Menu](#)

Call x4512 to make your reservation.

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**Info**

CDF collaboration on "this important and fascinating new result." Dr. Orbach continued: "Exploration of the anti-world's mysteries is a crucial step towards our understanding of the early universe, and how we came to be. Discoveries as important as oscillations to and from the antiworld have been made possible by the remarkable, record-breaking Run II luminosity of the Tevatron, a tribute to the skill of the Fermilab family. We look forward to continuing world leadership in high energy physics at this wonderful laboratory."

Over the last 20 years, a large number of experiments worldwide have participated in a program to perform high precision measurements of the behavior of matter and antimatter, especially as it pertains to strange, charm and bottom quarks. The physics of particles containing bottom quarks is so exciting that two accelerator complexes; one in Stanford California and the other in Tsukuba Japan were constructed to study these particles. Scientists hope that by assembling a large number of precise measurements involving the exotic behavior of these particles, they can begin to understand why they exist, how they interact with one another and what role they played in the development of the early universe. Although none of them exists in nature today, these particles were present in great abundance in the early universe. Scientists can only study them at large particle accelerators.

—*Mike Perricone*

**[Click here to read the full release](#)**

**In the News**

many nations meet. From the flags flying in front of Wilson Hall that greet a visitor, to the many scientists who come from abroad to collaborate on experiments and make Fermilab home while they are here, the impression is of a remarkable international institution. Our concern for safety and conduct of operations comes through in the briefings to our visitors and the care with which each visitor is treated. The sense of adventure and of discovery comes through every person who explains what he or she is doing and why. And the enormous technological developments that are needed to carry out our science cannot fail to impress. The most important assets though, as the Secretary emphasized in his speech, are not the accelerators and detectors, but the people who contribute in many different ways to the success of this laboratory. The competence, enthusiasm and ability of everyone who planned, prepared and participated in the visit were impressive. I want to thank all of you for making the visit of Secretary and Ms. Bodman a great success.

**Announcements****Fermilab Folk Club Barn Dance**

Fermilab Folk Club Barn Dance Sunday, April 16 at 2 p.m. with music by Superstring Theory and calling by Paul Ford. More info at [the folkclub webpage](#).

**NALWO Indian Cooking**

**Demonstration** Get ready for the NALWO Indian cooking demonstration on April 24, from 10:00 a.m. to 2:00 p.m. at Chez Leon in the User's Center. Come learn traditional techniques and recipes as well as modern methods and tricks. Stay for lunch to taste the results! RSVP to [SelithaR@hotmail.com](mailto:SelithaR@hotmail.com) or call (630) 305-7769.

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## ***FYI: The AIP Bulletin of Science Policy News, April 6, 2006:*** **Upbeat Hearing for OSTP Director John Marburger**

While not all federal science and technology programs were discussed during the April 4 House appropriations subcommittee hearing with OSTP Director John Marburger, it provided critical insight into how key appropriators view important components of the FY 2007 S&T budget request. Almost all indications were positive.

Chairman Frank Wolf (R-VA) and his colleagues on the House Science, State, Justice, and Commerce Appropriations Subcommittee met with Marburger for almost two hours. While there was a brief mention of the budget request for the Office of Science and Technology Policy, the majority of the time was given to a thoughtful discussion of American science and technology and appropriate supportive federal policy. Wolf began by congratulating and thanking Marburger for his efforts in crafting the American Competitiveness Initiative (ACI). Wolf quickly added that it would be an "enormous challenge" to fund all of the Administration's FY 2007 budget initiatives.

[Read More](#)

## **All New Spring Fling Book Fair, April 26, 27**

Matt and Breanne McEntee from Books R Fun have heard your comments about past book fairs and are going to bring you a whole new lineup every season. Along with Imagine Nation Books, LTD., they are going to offer a brand new product line for the fair on April 26 and 27. Breanne commented, "I have never seen such a colorful, interesting, and diverse lineup of products at such great prices." We are excited to be working with them again this year and with Imagine Nation Books. Check out the fair on April 26 from 10 a.m. - 6 p.m. and April 27 from 7 a.m. - 3 p.m. in the Atrium. Proceeds from the book fair go toward subsidizing some of our Recreation programs.

## **Plan Ahead for Tours**

Employees who want to bring students for a Lab tour must contact Nancy Lanning at [lanning@fnal.gov](mailto:lanning@fnal.gov) or X 5588 to make arrangements. The Education Office is happy to provide a docent to go along. Docents are experienced tour guides and can help in case of an emergency. We appreciate two weeks notice.

## [Upcoming Activities](#)