

Calendar

Tuesday, June 22

[Lattice 2004](#)

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Accelerator Physics and Technology Seminar - Huddle (NOTE LOCATION)

Speaker: R. Fliller, Brookhaven National Laboratory

Title: RHIC Crystal Collimation

Wednesday, June 23

[Lattice 2004](#)

2:30 p.m. Special Seminar - Curia II
Speaker: P. Schlein, University of California, Los Angeles

Title: Glueball Physics at BTeV and LHCb

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Fermilab Colloquium (NOTE LOCATION)- Auditorium

(In association with the Symposium "Lattice 2004")

Speaker: K. Wilson, Ohio State University

Title: The Origins of Lattice Gauge Theory

Wilson Hall Cafe

Two Records Set on Monday Morning

Early Monday morning, at 12:56 a.m., the Tevatron achieved a new record peak luminosity of $8.3 \text{ E}31$, about six percent higher than the record set less than two weeks ago. Independently, the Recycler set a record for the number of antiprotons stored. On June 21, about 1,380 billion antiprotons circled the Recycler storage ring, the largest amount ever. Congratulations!

Schaumburg Computer Teacher Paints Mural in Fermilab Greenhouse



[Schaumburg teacher Marlene Rosecrans in the Fermilab Greenhouse \(Click on image for larger version.\)](#)

Marlene Rosecrans, a computer teacher from Schaumburg, spent most of last week as a volunteer painting an educational prairie mural in Fermilab's greenhouse. The mural, which covers one wall and twelve feet of floor space, will teach visiting school groups about the root lengths of prairie plants such as Indian Grass, Big Blue Stem, and Compass Plant.

Rosecrans was once a college student of Bob Betz, the biologist who orchestrated Fermilab's 1100 acre

Director's Corner

Good Morning!

This week we welcome the largest international conference in the field of lattice quantum chromodynamics (QCD).



Mike Witherell

What is lattice QCD and why is this conference at Fermilab?

QCD is believed to be the complete theory of the strong interaction, the force that holds the proton together. Even armed with this theory, however, it is impossible to calculate simply such important quantities as the mass of the proton. To connect the theory with the material world, physicists have invented techniques and algorithms for calculating the important particle properties using the most powerful computers available. This area of physics is known as lattice QCD.

Better lattice QCD calculations are needed to interpret some of the most important experimental results in particle physics. Recent advances in doing the calculations have led to exciting new results that are being discussed at the conference.

Fermilab provides physicists with one of the world's leading computing facilities specially designed for lattice QCD calculations. We serve much the same role in this area of theoretical

Tuesday, June 22

Tomato Bisque

Pesto Marinated Chicken Breast \$4.75

Burgundy Beef Tips \$4.25

Baked Fish Creole over Rice \$3.75

Grilled Chicken Caesar Wrap \$4.75

Pepperoni Lover's Calzones \$3.75

Rio Grande Taco Salads \$4.75

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Weather



Mostly Sunny 72°/53°

[Extended Forecast](#)

[Weather at Fermilab](#)

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prairie restoration in the 1970s. She became interested in prairie vegetation through biodiversity classes at the Department of Natural Resources, and has since contributed to the prairie restoration at Lakeview School in Schaumburg. "We'll lose the new generation unless we educate them," said Rosecrans, who has also taught math and chemistry. "If you don't teach it, they won't respect it."

In the News

FYI: AIP Bulletin of Science Policy News

FY 2005 House Appropriations Committee Report: DOE Office of Science

The all-important FY 2005 Energy and Water Development Appropriations Bill and its accompanying report have been released. The following are selections from House Appropriations Committee report 108-554 regarding the Office of Science....

HIGH ENERGY PHYSICS: The Committee recommends a total of \$753,380,000 for high energy physics, an increase of \$16,000,000 over the budget request. The control level is at the High Energy Physics level. The additional funds are provided to meet increased electricity costs at the Stanford Linear Accelerator Center (SLAC) and to increase operating time and enhance user support at SLAC and the Fermi National Accelerator Laboratory. The Committee supports the Department's collaboration with the National Aeronautics and Space Administration (NASA) on the Gamma-ray Large Area Space Telescope (GLAST), the Alpha Magnetic

physics that we do for experimental particle physics. We are able to take on this critical role because of our experience with large computer farms and because of our strong group of theoretical physicists working at the forefront of lattice QCD.

Accelerator Update

June 18 - June 21

- During this 72 hour period operations established two stores. Those stores and an existing store provided approximately 65 hour and 37 minutes of luminosity to the experiments and the accelerator experts.
- Recycler stashed antiprotons three times
- Booster and Linac suffered from many RF trips
- On the Monday midnight shift the TeV set a NEW LUMINOSITY RECORD with a luminosity of 82.3E30

[View the current accelerator update](#)

[View the Tevatron Luminosity Charts](#)

Announcements

New Fermilab Classified Ad Policy
After consulting with laboratory officials, *Fermilab Today* recently amended its [Classified Ad Policy](#). Please read the new policy before submitting a classified ad. If you would like to submit an ad, please fill out the new [online form](#), providing all of the information requested. If you have any questions about the new policy, contact the Office of Public Affairs at x3351.

Fermi Singers Summer Concert
Don't forget to mark your calendars for July 7! Take a half hour out of your day

Spectrometer (AMS), and the Joint Dark Energy Mission (JDEM), and encourages NASA to maintain the planned schedule for these missions [read more](#)

to hear your friends and colleagues sing in the Auditorium. The concert is at noon. Cookies and cakes will be served following the performance. Don't miss it!

Fermilab Ultimate Frisbee Club
The Fermilab Ultimate Frisbee Club competes against Argonne in its annual tournament at Surrey Ridge Athletic Complex in Lisle on Thursday, June 24 at 6:00 p.m. Contact [Kip Bishofberger](#) for more information.