Fermilab Today

Tuesday, January 25, 2005

## Calendar

**Tuesday, January 25**

**3:30 p.m.** DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

**Wednesday, January 26**

**11:00 a.m.** Fermilab ILC R&D Meeting - 1 West

Speaker: V. Kuchler, Fermilab

Title: ILC Conventional Facilities Update

Speaker: J. Jackson, Fermilab

Title: Recent Development in ILC Communications

**3:00 p.m.** Proton Driver General Meeting - 1 West

Speaker: D. Bogert, Fermilab

Title: Civil Construction for Proton Driver Linac

**3:30 p.m.** DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

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

Speaker: S. Geer, Fermilab

Title: Physics at a New Fermilab Proton Driver

## Weather

Breezy **39º/25º**

Extended Forecast

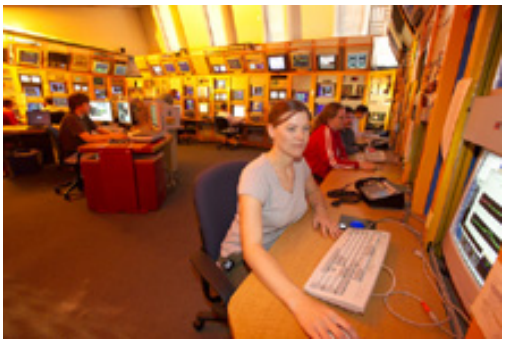
Weather at Fermilab

## Current Security Status

Secon Level 3

## Wilson Hall Cafe

# Tevatron turned in a record run following the shutdown



Fermilab's Main Control Room (Click on image for larger version.)

The Tevatron hit some bumps in the road over the weekend, but the ride has been a good one since the shutdown ended. On Monday, Jan. 17, the Tevatron set another initial luminosity record at $1.05 \times 10^{32}$ $cm^{-2}s^{-1}$ in store #3925, then came close with 1.04E32. A record rate of antiproton production contributed to the luminosity record, and the integrated luminosity for the week of Jan. 17 was the third best ever for the Tevatron.

"These small steps demonstrate our progress. They are not due to major breakthroughs," said Accelerator Division head Roger Dixon. "But they show that we're on the correct slope for continuing to improve the luminosity of the Collider."

An improved stacking rate in the Accumulator contributed to the luminosity boost following the shutdown, since antiprotons are a key to luminosity. With the Recycler now playing an important role in storing antiprotons, the Accumulator's average stacking rate improves as antiprotons are periodically transferred to the Recyler. The Accumulator now can spend more time

## Director's Corner

# Good Morning!

Mike Witherell

Friday marked the first attempt to operate the NuMI neutrino beam, and it was a spectacular success. The MINOS experimenters observed a neutrino event on the fourth pulse of the beam with the focusing horn on. It didn't take many protons from the Main Injector to produce this event. During routine operation of MINOS, the Main Injector will deliver about 50 thousand times as many protons to the NuMI target every hour as one of those initial pulses.

Many more neutrino events were collected by the end of the weekend, fulfilling the final milestones for the 6-year long NuMI project. Greg Bock and the many people who worked on the NuMI project can be very proud of what they have accomplished. It was as difficult and important a project as anything done in the scientific world over the last few years.

Fermilab is the primary center for neutrino physics with accelerators, with the MiniBooNE experiment operating in the Booster neutrino beam and the MINOS experiment in the long-baseline NuMI beam. From the earliest days of the laboratory, Fermilab neutrino experiments have been in the forefront of the field. We look forward to great results from MiniBooNE and MINOS in the years to

**Tuesday, January 25**
Chicken and Rice Soup
Mushroom Swiss Burger $4.75
Baked Meatloaf with a Roasted Tomato Demi-Glace $3.75
Parmesan Baked Fish $3.75
Southwestern Turkey Wrap $4.75
Ham & Pastrami Calzones $3.25
South of the Border Burritos with Chips & Queso $4.75

Wilson Hall Cafe Menu
Chez Leon will be closed through January and February

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stacking with a small stack where the rates are higher. "Another factor is the Tevatron reliability that results in stores lasting longer," Dixon said. "This gives us more time to stack antiprotons for the next store."

The post-shutdown surge wasn't crisis-free: major power outage originating with Commonwealth Edison on January 3 shut down operations for three days.

"The whole Division performed remarkably well," Dixon said. "You can't just flip a switch and turn the Tevatron back on after a power outage. Many things happen when the power goes off, not the least of which is warmup of the Tevatron cyrogenic magnates. Cooling the cryogenic systems back down takes time. Nevertheless we managed a very rapid startup that beat our intitial estimates by several days.In another incident last week a vacuum circuit breaker in the Main Injector failed spectacularly. This event had to potential to cause a much longer downtime than we actually experienced due in large part to the Operating and technical support staff in both the Accelerator Division and in FESS responding quickly and effectively.

The next two challenges for the Division are continuing to increase the stacking rate in the Accumulator and commissioning the electron cooling system in the Recycler. Dixon said the goal for electron cooling is to circulate an electron beam in the Pelletron in February, and then to introduce the electron beam into the Recycler in March.

## In the News

come.

## Accelerator Update

**January 21 - January 24**
- During this 72 hour period operations established one store that provided the experiments with approximately 4 hours and 36 minutes of luminosity
- Quenches, leaks, and wet engine problems plagued the Tevatron all weekend
- NuMI reported seeing their first neutrinos at the MINOS near detector on Friday

Read the Current Accelerator Update
Read the Early Bird Report
View the Tevatron Luminosity Charts

## Announcements

**Unix Users Meeting**
The next Unix Users' Meeting will be on Wednesday, January 26 from 1:00 p.m. to 3:00 p.m. in Curia II.
Agenda:
Marc Mengel - Ups change to TWW
Joe Klemencic - Xhosting your security
Connie & Troy - Linux updates

**Neutrino Video Installation**
The ThreeWalls Gallery in Chicago is showing until January 29 the video installation "BALDINO-NEUTRINO" by New York based artist Phyllis Baldino. The room-sized installation is based on video filmed at CERN, including footage inside the SPS tunnel. During the continuously running video, the artist pretends to become a neutrino herself and take the 2.5-millisecond journey 454 miles to Gran Sasso, Italy. ThreeWalls is located in the West Loop at 119 N. Peoria #2A, Chicago. Take CTA Blue Line to Grand or UIC/Halsted. Gallery Hours:

## From *Chicago Sun-Times*, January 24, 2005

**Major players put Chicago on map for grid computing**

by Howard Wolinsky

A new trade association backed by major computer industry companies is being formed here to promote grid computing.

Grid computing is a technology that enables users with diverse programs and operating systems to share computer processing, storage, data and software across networks. The trade association's aim is to move grid computing out of the ivy tower and into corporate towers.

Hewlett-Packard, IBM, Intel and Sun Microsystems today will announce they are sponsoring the Globus Consortium to create open standards for grid computing, a technology developed by Argonne National Laboratory here and the University of Southern California. The Globus Toolkit, which includes software for sharing resources and security, was built to help scientists and corporations that want to develop their own secure grids. The system was honored in 2003 with a Chicago Innovation Award, presented by the Chicago Sun-Times and Kuczmarski & Associates.

**read more**

Tues - Sat 12 noon - 6 pm. Admission is free.

**Symmetry Online Subscription**

To receive an email this week with links to all stories of the February issue of *symmetry*, please sign up for the electronic notification. Hard copies of the new issue of *symmetry* will be distributed the day after the online distribution.

**January PC Manager Meeting** The next PC Manager Meeting will be on Wednesday, January 26, from 9 to10 a.m. in WH8X (Hornets Nest).

Agenda:

- Announcements and Updates (Jack Schmidt)
- FNAL Training Information (Sara Webber)
- Phishing with Joe: Spyware 101 (Joe Klemencic - main talk!)
- Experiences with the Microsoft AntiSpyware Tool (Andy Lego)

**Free Introductory Tai Chi Class**

A free introductory Tai Chi class will be offered in the Recreation Facility on Friday, February 18 from 6:30 AM to 7:15 AM. If there is adequate interest in Tai Chi Classes at this time, Recreation will schedule an eight week session, same time and same day of the week for a cost of $60.00. Registration for the free class can be made by calling the Recreation Office at X5427 or X2548. You must pre-register. You do not need to be a member of the Recreation Facility for this introductory class, however, you will need to be one to participate in the scheduled 8-week session. Deadline to register for this class is February 11.

**Upcoming Activities**