

Calendar

Friday, May 26

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Joint Experimental Theoretical Physics Seminar - 1 West

Speaker: R. Bean, Cornell University

Title: Cosmology from WMAP and Beyond

Monday, May 29

Memorial Day

For links to events, click [here](#).

Weather



Mostly Cloudy **79°/60°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Friday, May 26

- Old Fashioned Ham & Bean
- Black & Blue Cheese Burger
- Summer Herb Cod
- Stuffed Manicotti
- Roasted Veggie & Provolone Panini
- Assorted Pizza Slice
- Vegetarian Stir Fry

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

[Upcoming Menu](#)

Getting ready to start again



Left to right: Proton Source Department head Eric Prebys discusses Booster startup in the Main Control Room with Jim Lackey, Fernanda Garcia and Ray Tomlin, all from the Proton Source Department.

Usually, the phrase "cool down" signals the end of something. Not so for the Tevatron, which is just shaking the dust from its bowels after a two-month shutdown. As it gears up over the next few weeks, the giant collider will have to undergo a number of procedures, including cooling to below minus 260 degrees Celsius so its magnets can work. "We plan to have the whole ring cooled by the end of the week," AD head Roger Dixon said Wednesday.

Besides cooling, Dixon says a number of tasks need to be coordinated before the proton beam can run through all the machinery. Beginning with the Linac, operators and machine specialists work in the order of the beam path to establish beam--they move to the Booster, then the Main Injector, Recycler, Antiproton Source, and finally the Tevatron*. Since so many upgrades were made to the various accelerators during shutdown, each step requires significant coordination. "We don't really know how things are working until we run the beam

Postdocs Share Tollestrup Award for B_s Meson work



Clockwise from the left: Ivan Furic of the University of Chicago, Stephanie Menzemer of Universitat Heidelberg and Guillermo Gomez Ceballos of the University of Cantabria.

Three CDF postdoctoral researchers will share the 2006 Tollestrup Award for Outstanding Postdoctoral Research at the FNAL Users' Meeting next week. Ivan Furic of the University of Chicago, Guillermo Gomez Ceballos of the University of Cantabria, and Stephanie Menzemer of Universitat Heidelberg will receive the award for their work in determining the frequency with which a B_s meson changes back and forth between its matter and antimatter states. The results, presented in April, help physicists to rule out new theories that could supplement--or supplant--the standard model. "This is arguably the most complex and difficult analysis ever attempted at a hadron collider. It was a remarkable accomplishment for the experiment and these three people contributed heavily," said John Conway, chair of the Tollestrup Award Selection Committee.

Chez Leon**Wednesday, May 31****Lunch**

- Corn Crepes w/Chicken & Poblano
- Chilies
- Pico De Gallo
- Tropical Fruit Platter

Thursday, June 1**Dinner**

- Gazpacho
- Seafood Paella
- Watercress Salad
- Apricot Lemon Almond Tart

[Chez Leon Menu](#)

Call x4598 to make your reservation.

Search**Search the Fermilab Today Archive****Info**Fermilab Today is online at: <http://www.fnal.gov/today/>Send comments and suggestions to today@fnal.gov[Hurricane Relief Page](#)[Fermilab Today archive](#)[Fermilab Today PDF Version](#)[Fermilab Result of the Week archive](#)[Fermilab Safety Tip of the Week archive](#)[Linear Collider News archive](#)[Fermilab Today classifieds](#)[Subscribe/Unsubscribe to Fermilab Today](#)

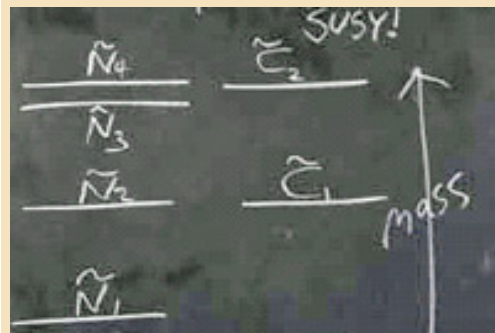
through each piece," said Dixon.

One of the electrostatic separators (used to guide protons and antiprotons in separate helical orbits around the ring), caused the first glitch in the Tevatron's startup. It sprung a small leak and had to be repaired, and now must be "baked" before beam can be established. "We need to heat the separator to evaporate residue that might later ruin the vacuum in the ring," said Dixon.

In addition to running the proton beam, the electron beam used to cool antiparticles in the Recycler also needs to be initiated. "We won't know how well the changes we made are going to work until we establish beam in all machines," said Dixon, "so this is the moment of truth."

--Siri Steiner

*To see how the beamline moves through the accelerators, check out this [animation](#). For updates on startup progress, check the Accelerator Update that runs three times a week in *Fermilab Today*, or click [here](#).

ILC NewsLine**Einstein's Telescope**

Supersymmetry (SUSY) – a conjectured new symmetry in nature that could be key to the unification of the forces.

One of the most intriguing features of the

Although there is usually a single recipient, the committee chose three winners this year because the combination of their efforts made the new measurements possible. By determining the charge of kaons produced along with the strange quark-containing mesons, Menzemer could tell whether an oscillating B_s - B_s (bar) meson began as matter or antimatter. Furic made an electronics board that allowed the triggering system to recognize and record the coveted hadronic B_s meson decays. Ceballos developed new analytic methods to separate B_s meson decays from other B meson decays, thereby squeezing more information out of the same sets of data. "This year's award illustrates vividly the value of both individual creative effort and collaboration," Conway said. "If you take any of these three contributions from the result, it would not have nearly the power of all of them combined."

The URA-sponsored award presents the winning postdocs with \$3000 and the opportunity to give a talk at the annual Users' meeting on June 2. "Postdocs are where the really great science emanates from, and we wanted to recognize that," Conway said.

Accelerator Update**May 24-25**

- Startup
- CDF powered solenoids
- Operations powered the TeV bulk power supplies
- Machine Reports

[Read the Current Accelerator Update](#)[Read the Early Bird Report](#)[View the Tevatron Luminosity Charts](#)

ILC is its potential to act as a telescope to "explore energies a trillion times that of the accelerator itself, in the ultra-high-energy realm where physicists believe that all of nature's forces become one." Einstein spent much of his career trying to develop such a description of nature in a unified field theory, and we still seek such an understanding today.

[Read More](#)

--Barry Barish

In the News

From *FYI: The AIP Bulletin of Science Policy News*, May 24, 2006:

United States Initials ITER Agreement

"ITER represents the hope of the world," DOE Office of Science Director Ray Orbach said in a conference call from Brussels this morning announcing the initialing of an international agreement to construct ITER. Congress will now have 120 days to review the Joint Implementation Agreement for this fusion energy project.

If all goes as planned, the seven ITER Parties (European Union, Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation, and the U.S.) will sign the final agreement on November 29, 2006. Construction in Cadarache, France will start in 2007, and is expected to last eight years.

[Read More](#)

Announcements

Batavia Road will open for the weekend, then close again

The Batavia Road entrance will open at 5:00 p.m. today, May 26, but will close again at 6:00 a.m. on Tuesday, May 30. The city of Warrenville has requested more time to work on the road between Fermilab's east gate and Route 59. Updates will appear in Fermilab Today. For more information, contact Tom Prosapio at prosapio@fnal.gov

Summer Muscle Toning Class

Gain strength, lean body mass, and increase muscle definition with the Recreation Facility's strength training classes held from 5:30-6:30 p.m. on Tuesdays and Thursdays. There are two four-week sessions: June 1 - June 27 and August 29 - September 28. Sessions cost \$32 each, and the registration deadline is Friday prior to the start of the session. You must be a Recreation Member to participate. Registration can be done by mail, fax x5207, in person in the Recreation Office or if you are using a credit card for payment, by phone.

Save the date

The Fermi Singers will perform June 2 at noon in the Ramsey Auditorium.

English country dancing

English country dancing will continue at Fermilab's Barn, generally meeting the last Sunday afternoon of the month, will meet next on Sunday, June 25 at 2 p.m. Please contact folkdance@fnal.gov or call 630-584-0825 or 630-840-8194.

New [classified ads](#) have been posted on Fermilab Today.

[Upcoming Activities](#)