

Calendar

Friday, July 7

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Joint Experimental Theoretical Physics Seminar - Curia II (note location)
Speaker: A. Drutskoy, University of Cincinnati

Title: Results from the U(5S) Engineering Run at Belle

Saturday, July 8

8:00 p.m. Fermilab Arts Series: Pat Donohue and Howard Levy - Auditorium

Monday, July 10

PARTICLE ASTROPHYSICS SEMINARS WILL RESUME IN THE FALL

THERE WILL BE NO DIRECTOR'S COFFEE BREAK TODAY

4:00 p.m. All Experimenters' Meeting - Curia II
Special Topic: CDMS II: Back in Operation

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

Weather



Sunny **85°/61°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Wilson's powerful legacy could be cast in steel



These iconic pi-shaped power lines were designed by Fermilab founder Robert Wilson over 30 years ago. (Click on image to see where poles were replaced.)

Bearing a symbol crucial to science, Robert Wilson's pi-shaped power poles also bear a crucial 30 megawatts of power to make science at Fermilab happen. But as insects, woodpeckers and weather chip away at the wooden poles erected more than 30 years ago, employees struggle to keep pace with maintenance. "When insects and woodpeckers do what they do to wood, they invite moisture in, cause rot and reduce the structural integrity of the poles," said Randy Ortgiesen of FESS.

As the poles age, Ortgiesen says filling holes with epoxy only goes so far in

ILC NewsLine

From the GDE director: Demonstrating the ILC accelerating gradient



The ILC Niobium 9 cell 1-meter-long baseline cavity.

The central element of the ILC concept is the superconducting RF technology that will be used to accelerate electrons and positrons in the main linac. The choice of accelerating gradient is perhaps the single most important decision we have made, since it determines the length of the machine and has significant cost implications. Last December, we chose an aggressive peak gradient of 35MV/m and an operating gradient of 31.5 MV/m for our baseline. Yet, achieving this gradient in production cavities has not been demonstrated and will be a formidable challenge.

Nevertheless, we believe this gradient is a reasonable choice and establishes a realistic goal for our R&D program, especially considering what has already been achieved and what we project for TESLA-type superconducting cavities. It is also worth noting that in the longer term even higher gradients could be achieved with improved cavity shapes.

[Read More](#)

Accelerator Update

Friday, July 7

- Cream of Wild Mushroom
- Blackened Fish Filet Sandwich
- Southern Fried Chicken
- Tuna Casserole
- Eggplant Parmesan Panini
- Assorted Slice Pizza
- Assorted Sub Sandwich

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

[Upcoming Menu](#)**Chez Leon****Wednesday, July 12****Lunch**

- Roasted Vegetables and Cheese Strudel
- Vanilla Custard w/Blueberry Sauce

Thursday, July 13**Dinner**

BOOKED

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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preserving the fragile structures--and Wilson's legacy. "During this last inspection we had to shut the electricity down and replace some of the poles," Ortgiesen said. Ed Crumpley, engineering group manager, says a particularly deep woodpecker burrow caused alarm. "We became seriously concerned about the poles not being able to stand for too much longer," Crumpley said. Aside from lifting the new poles into place by crane, Crumpley said a contractor had to chop the old poles down piece-by-piece so they wouldn't drop on the power lines.

Both Ortgiesen and Crumpley said the future of the pi-poles is uncertain at this point, but said their total replacement is likely. Since the late 1990s, Ortgiesen says Fermilab has considered using steel poles shaped almost identical to Wilson's design. "We're trying to preserve an important part of Wilson's legacy, but we don't think the [wooden] material used is a crucial part of that legacy," Crumpley said. "And, to be honest, it's hard to find trees that long and straight anymore."

--*Dave Mosher*

In the News**SEED Magazine, July 6, 2006**

Why a Large Hadron Collider? Seed asks some of the greatest physicists alive what we hope to learn from the LHC.

The Large Hadron Collider (LHC) currently under construction at CERN is the greatest basic science endeavor in history. Roughly half of the world's particle physicists, 7,000 individuals, make the Collider their workplace. This single-minded group of men and women

July 5 - 6

- One store provided 24 hours of luminosity
- NuMI off due to horn cooling problem
- Booster access to repair five PAs
- A0 cold compressors trip

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements**ILC Town Hall Meeting at VLCW06:****Submit Your Question Today**

Do you have a question about the Reference Design Report for the ILC? Or are you wondering about an ILC detector concept? Do you worry about how machine and detectors will work together? Or perhaps you have a question about the proposed timeline for building the ILC? At the Vancouver Linear Collider Workshop 2006, you will have the opportunity to ask your questions about the ILC on Thursday, July 20 at 7:30 p.m. in the Student Union Building Ballroom. If you have a question for the panel, please submit it in advance to communicators@linearcollider.org by Wednesday, July 12.

Dinosaurs at SciTech

The SciTech Hands-on Museum in Aurora hosts "Dinosaurios Argentinos," an exhibit with lifelike replicas and 8 complete skeletons of dinosaurs. The objects are for the first time on display in the United States and include the Giganotosaurus, the largest predator to ever walk the earth. Tickets are \$12.

[More information.](#)

New Professional Development Classes

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hails from more than 80 countries. They represent almost every religion and ethnicity on Earth—embodying curiosity, cooperation, brilliance and ingenuity on the grandest scale.

The LHC is a circular tunnel 27 km around, bisected by the Franco-Swiss border. Over 100-billion protons will traverse its pathways at near-light speed, guided by some 9,300 superconducting magnets, each weighing several tons and chilled to temperatures colder than deep space. At four points in the tunnels, the counter-revolving protons are to smash into one another at a rate of nearly one billion per second.

[Read More](#)

In response to your requests, the Office for Professional & Organization Development has scheduled additional summer classes including Excel Pivot Tables on July 13; Excel Formulas and Functions on July 13; and Introduction to LabVIEW on July 18. For a full schedule, visit the [website](#).

English country dancing

English country dancing will continue at Fermilab's Barn, generally meeting the last Sunday afternoon of the month. The group will meet next on Sunday, July 30 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](#)