

## Calendar

**Wed., July 25**

**8:00 a.m. - 5:00 p.m.**

Toward the ILC: A Fermilab [Community School](#) on R&D Challenges and Opportunities - One West

**3:30 p.m.**

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over  
THERE WILL BE NO FERMILAB COLLOQUIUM THIS WEEK

**4:00 p.m.**

Fermilab Colloquium - One West  
Speaker: M. Ross, Fermilab  
Title: Challenges of the ILC Main Linac

**Thurs., July 26**

**8:00 a.m. - 5:00 p.m.**

Toward the ILC: A Fermilab [Community School](#) on R&D Challenges and Opportunities - One West

**8:00 a.m. - 5:00 p.m.**

[Open Science Grid Users' Meeting](#)

**2:30 p.m.**

Theoretical Physics Seminar - Curia II  
Speaker: P. Hung, University of Virginia  
Title: Electroweak-Scale Right-Handed Neutrinos

**3:30 p.m.**

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

**4:00 p.m.**

Accelerator Physics and Technology Seminar - One West  
Speaker: A. Seryi, Stanford Linear Accelerator Center  
Title: ILC Beam Delivery System

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

## Feature

### DOE's Kathy Turner connects science with government



Kathy Turner

It takes more than a great idea to make an experiment happen. Almost all modern science requires federal support, and while they may be experts at their research, scientists aren't always as skilled at dealing with the workings of government. The Department of

Energy's Kathy Turner, however, knows the terrain well. Each day, she guides scientists through the complicated landscape of governmental procedures and requirements so that they can do what they do best—science.

Turner is a Program Manager in the High Energy Physics section of DOE's Office of Science. A typical day for her could include reviewing a project proposal, attending a meeting, or visiting one of the 20 universities with programs that she is responsible for. Ultimately, her job is to help scientists realize their research goals.

"I help scientists navigate their way through the system. I understand the excitement they have regarding their projects, and I want to support them in any way that I can," Turner said.

A physicist by training, Turner is uniquely qualified for the task. She holds a Ph.D. in physics and has research experience from her work on the E711 and DZero experiments at Fermilab. She took her job at DOE in 2000 after three years on Brookhaven's STAR (Solenoidal Tracker at RHIC) project.

Turner also oversees Quarknet, a popular Web-based physics education program, and she acts as a liaison with the National Aeronautics and Space Administration, the National Science Foundation, and the Astronomy and Astrophysics Advisory Committee for DOE on a number of projects such as the Joint Dark Energy Mission. Turner has seven astrophysics and cosmology

## From the Technical Division

### Toward the ILC

*Today's column is written by Marc Ross, head of the Technical Division.*

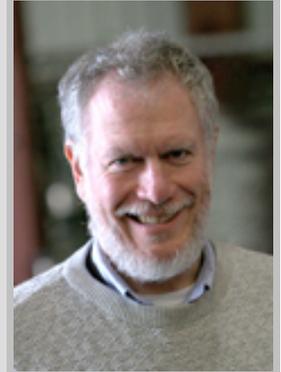
Today is the first day of "Toward the ILC," a Fermilab community school devoted to educating the lab staff and our user community about ILC research and development. The school will highlight the challenge of designing and building a high-gradient

superconducting linac. Through the emerging ILC Engineering Design Activity and the pending recommendations of the Deputy Director's Steering Group it appears increasingly likely that this challenge will be part of Fermilab's near-term future.

As if to underscore this opportunity, Fermilab is closing in this week on three major milestones in our superconducting RF R&D program:

- Initial commissioning of the Vertical Cavity Test Facility in industrial center building IB-1
- Initial commissioning of the Horizontal Cavity Test Stand in the Meson Area
- The beginning of our first cryomodule cavity string assembly in Meson Area building MP-9

Furthermore, collaborators at our sister lab, Argonne, and at the nuclear science facility Thomas Jefferson Lab, are also on the verge of achieving important milestones. Later this month Argonne Physics Division researchers, in collaboration with Fermilab TD and AD, will commission a high-capacity RF cavity Electro-Polishing facility that will be used later this year to feed cavities for testing in Fermilab's IB-1. At Thomas Jefferson Lab, a similar facility has been in full swing since late last year and will soon complete the first cycle of the cornerstone ILC 'S0-tight loop' R&D effort on RF cavity processing and testing.



Marc Ross

**Weather****Partly Cloudy 83°/65°**[Extended Forecast](#)[Weather at Fermilab](#)**Current Security Status**[Secou Level 3](#)**Wilson Hall Cafe****Wednesday, July 25**

- Creamy mushroom chicken soup
- Cajun chicken ranch
- Chicken wellington
- Italian sausage w/peppers
- Smoked turkey panini pesto mayo
- Assorted sliced pizza
- Chicken alfredo fettucine

[Wilson Hall Cafe Menu](#)**Chez Leon****Wednesday, July 25****Lunch**

- Salad of ham, gruyere & cabbage in roquefort dressing
- Chocolate mousse w/ almonds & cookies

**Thursday, July 26****Dinner**

- Pasta w/roasted summer vegetables
- Veal saltimbocca
- Sautéed spinach w/lemon & pine nuts
- Peach melba

[Chez Leon Menu](#)

Call x4598 to make your reservation.

**Archives**[Fermilab Today](#)[Result of the Week](#)[Safety Tip of the Week](#)[ILC NewsLine](#)

experiments under her watch, including Pierre Auger, VERITAS and the Dark Energy Survey.

Despite the substantial workload, Turner enjoys her job. "It's easy to lose the 'big picture' when you're focused on one particular experiment," she said. "I really like being able to keep track of the whole field; that's a big part of my job."

-- J. Bryan Lowder

**Feature****WDRS picnic, training teaches detection of the invisible**

Workforce Development and Resource Section employees enjoyed a potluck smorgasbord of food at their annual picnic yesterday while learning about how Fermilab scientists detect the invisible.

Activities led by Lederman Science Center and Education Department staff, included probing clay balls to identify the object inside, rolling ball bearings over magnets and examining QuarkNet's cloud chamber and kit experiments. These aimed to give employees a sense of the basics of particle detection.

-- Rhianna Wisniewski



WDRS employees discuss a completed QuarkNet kit on display at the department's annual picnic yesterday.

**In the News****From CIO, July 20, 2007****CERN's Search for God (Particles) Drives Massive Storage Needs**

*Think your storage headaches are big? Try being the guy in charge of storing the 1GB of data per second every day for a month coming off CERN's large hadron collider (LHC).*

Maybe you last read about CERN (the European Organization for Nuclear Research) and its massive particle accelerators in Angels & Demons by Dan Brown of The Da Vinci Code fame. In that book, the lead character travels to the cavernous research institute on the border of France and Switzerland to help investigate a murder. In real life, one of

Finally, just as important, our Physics Advisory Committee recommended that Fermilab press forward to enhance the possibility of an early ILC construction start. This supporting recommendation comes at the same time as the restructuring of the ILC Global Design Effort aimed at the development of an Engineering Design. As part of this restructuring, the GDE has asked several Fermilab staff to accept leadership roles in the restructured international organization. I have accepted the appointment as Project Manager, along with Project Managers Akira Yamamoto and Nick Walker from partner labs KEK and DESY, and will start in this capacity the middle of next month. TD's Jim Kerby will serve as co-Project Manager for Technical Systems under Akira Yamamoto. Other people to serve are Fermilab employees Peter Garbincius, Vic Kuchler, Margaret Votava, Nikolay Solyak, Tom Peterson, Harry Carter and, from Argonne, John Carwardine. Shekhar Mishra has accepted the special role of brokering and formalizing the network of international agreements needed to support the GDE Engineering Design.

I invite you to join us this week at "[Toward the ILC](#)," at which you can learn about the ILC, the transition to the engineering design phase, the ILC R&D challenges that await us and where you can engage.

**Announcements****Meeting Maker Upgrade**

Meeting Maker will be upgraded to the latest version on July 26. The service will be down from 5:00 a.m. to 7:00 a.m. Users of the system are instructed to leave their machines on Wednesday night.

**Contribute your music to labwide party**

In keeping with the international flavor of the labwide party on Friday, August 3, the party organizers and the DJ invite you to contribute CDs with up to three tracks of your favorite party music from your home country for play during the party. Please label the CDs with your name, mail station and e-mail address and bring them to Judy Treend, Office of Public Affairs, WH1NE, by 5 p.m. on Monday, July 30.

**Salary Review Process Location Change**

General information for all employees on updates to the salary review process is now available [online](#). Please review this presentation. If you have any questions on the information provided or any topic related to the

## Info

Fermilab Today is online at:  
[www.fnal.gov/today/](http://www.fnal.gov/today/)  
Send comments and suggestions to:  
[today@fnal.gov](mailto:today@fnal.gov)

CERN's grisiest problems is finding storage for the massive amounts of data derived from its four high-profile physics experiments making use of the institute's large hadron collider (LHC). Due for operation in May 2008, the LHC is a 27-kilometer-long device designed to accelerate subatomic particles to ridiculous speeds, smash them into each other and then record the results.

[Read more](#)

upcoming salary review, please attend one of the town-hall meetings scheduled for 1:30 p. m. on July 25, 26, and 31 in Wilson Hall, Auditorium.

### **Village Tennis Courts**

The Village tennis courts will be repaired on Wednesday, July 25 beginning at 8:00 a.m. Please stay off courts until signage has been taken down.

[Additional Activities](#)