

Calendar

Wednesday, February 15

THERE WILL BE NO ILC R&D MEETING THIS WEEK

3:30 p.m. Director's Coffee Break - 2nd Flr X-Over

4:00 p.m. Fermilab Colloquium - 1 West
Speaker: D. Dennett, Tufts University
Title: Religion as a Natural Phenomenon

Thursday, February 16

11:00 p.m. Academic Lecture Series - Curia II

Speaker: B. Kayser, Fermilab
Title: The New World of Neutrino Physics – Part IV (4th Lecture)

2:30 p.m. Theoretical Physics Seminar - WH-3NE

Speaker: R. Hill, Fermilab
Title: Flavor Physics as a Probe of QCD

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

4:00 p.m. Accelerator Physics and Technology Seminar - 1 West
Speaker: E. Zaplatin, Forschungszentrum Juelich
Title: FZJ Superconducting RF Cavities

Weather



Mostly Cloudy **39°/30°**

[Extended Forecast](#)

[Weather at Fermilab](#)

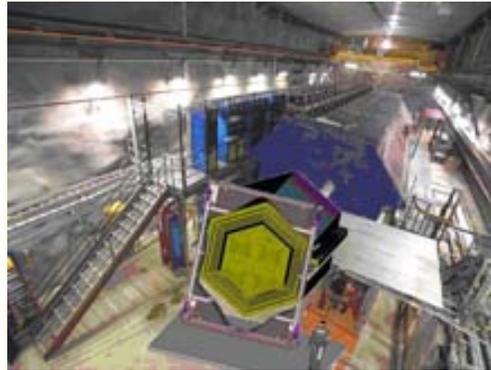
Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

MINERvA Takes Point-Blank Aim at Neutrino Mysteries

This is the first article in a series on the MINERvA neutrino experiment.



Engineering model of the 5-ton MINERvA detector in place in the MINOS Hall. ([Click image for larger version.](#))

A new Fermilab experiment, MINERvA, is joining the effort to answer one of the most puzzling questions of physics: What are neutrinos trying to tell us, about themselves, matter and about the universe? "There are more neutrinos in the universe than there are protons and neutrons by a huge factor," says experiment co-spokesperson Kevin McFarland of the University of Rochester. "And yet they are one of the least understood of particles. We didn't even know if they had mass until the last decade, and we have years of experimentation ahead of us to fully understand the nature of the neutrino."

MINERvA (Main Injector Neutrino Experiment v-A), which is currently in the prototyping phase, will use a comparatively small (5 tons), high-resolution detector placed in the NuMI near target hall. With the NuMI beam firing neutrinos at it point-blank, MINERvA positions itself at the juncture

Apply Now for 2006 HCP Summer School Session



The Hadron Collider Physics Summer School will run in August at Fermilab. The organizing committee includes physicists from Fermilab, Brown University and UC Davis.

The 2006 Hadron Collider Physics Summer School, held at Fermilab on August 9-18 as the first in a joint CERN-Fermilab series, is now accepting applications from advanced graduate students and recent PhD's.

At the upcoming Summer School, students will learn a broad range of topics, from basic particle theory to the analysis of data from hadronic collisions. Many of the instructors will be Fermilab physicists with years of experience studying hadronic collisions in the Tevatron. "There is a great deal of background noise in proton collisions," said Fermilab theorist Bogdan Dobrescu, co-director with Jeff Appel, Program Planning head. "We hope to give students a general understanding of how to sift through all that data in order to decipher the fundamental laws of nature."

The program offers classes for both theorists and experimentalists. "In the past, there has been a gap between

Wednesday, February 15

- Italian Wedding w/Meatballs
- Diner Style Patty Melt
- Chicken a la Mer
- Beef & Broc
- Greek Chicken Panini w/Feta Cheese
- Sicilian Style Pizza
- Grilled Chicken Bowtie in a Tomato Cream Sauce

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

[Wilson Hall Cafe Menu](#)

Chez Leon**Wednesday, February 15****Lunch**

- Catfish w/Coarse Mustard
- Roasted Corn & Red Pepper
- Spicy Tomato Rice
- Pecan Pie

Thursday, February 16**Valentine's Day Dinner**

- Red Pepper Souffle w/Julienne of Zucchini
- Lobster Medallions w/Champagne Butter Sauce
- Green Beans w/Dill
- Lemon Grass Rice
- Chocolate Hearts w/Raspberry Sauce

[Chez Leon Menu](#)

Call x4512 to make your reservation.

Search

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Info

of particle and nuclear physics. The experiment, the first of its kind, will use the high intensity of the NuMI beam to study neutrino reactions with the nuclei of three target materials: carbon, iron and lead.

Neutrinos rarely interact with matter. But given the intensity of the NuMI beam, and the sheer numbers of neutrinos in the NuMI Near Hall, MINERvA can collect millions of events in just a few years of running. The 19-institution collaboration includes several nuclear physicists who want to study both the initial collisions and the results of the particles that are produced as they pass through the nuclei of the detector atoms. "We can't understand the nature of neutrinos if we don't know how they interact in our detectors," says co-spokesperson Jorge G. Morfin of Fermilab. "We can use neutrinos to study supernovae, the sun, even the core of the earth-but only if we understand the nature of the neutrinos themselves, and how they interact with matter"

—*Mike Perricone*

Next week: The Fermilab component

In Memoriam**Jane Scheyer Wilson**

Robert and Jane Wilson in 1978.

these groups," said Dobrescu. "We feel that the LHC, like the Tevatron, will greatly benefit from good communication between them." Lecture highlights will include the Standard Model, physics beyond the Standard Model, theory of hadronic collisions, detectors, objects as seen in the detectors, and physics analysis, among other things. Dobrescu says that another goal of the summer school is to foster a sense of community: "We are getting people together who are really interested in pursuing this path," he said. "It's important for students who will later be experts in the field to get to know each other early on."

If you would like more information, or would like to apply, visit the [HCP Summer School Website](#).

— *Siri Steiner*

Announcements**Last chance for survey participation**

So far more than 50 percent of Fermilab employees have filled in and submitted the Fermilab Today survey conducted by the University of Chicago Survey Lab. Thank you. The Survey Lab will close the online survey this Friday, February 17. If you have not yet completed the survey, please take 10 to 15 minutes of your time to answer the questions. Click on the link provided in the email from Kelly Daley of the Survey Lab. (If clicking doesn't work, please copy the entire link as one line into a Web browser.) We'd like to get feedback from as many lab employees as possible!

Discounted Tickets to "String Theory" by The Chicago Chamber Musicians

The concert will take place Sunday, February 19 at 7:30 p.m. at the Pick-

Fermilab Today is online at: <http://www.fnal.gov/today/>

Send comments and suggestions to today@fnal.gov

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Jane Scheyer Wilson, 89, widow of Fermilab's founding director Robert R. Wilson, died yesterday morning, February 14. She is survived by three sons, Daniel, Jonathan, and Rand and their families. A memorial service at the "Kendal in Ithaca" (NY) will be held approximately a month from now. Details are not yet available. Final burial will be in the Pioneer Cemetery at Fermilab, where Dr. Wilson is buried, at a later date. A remembrance will appear soon in *Fermilab Today*.

In the News

Brookhaven National Laboratory and Fermi National Accelerator Laboratory Press Release, February 15, 2006: **U.S. Researchers Put Global Science Grid to the Test**

Upton, NY and Batavia, IL - A global collaboration of physicists and computer scientists announced today the successful completion of a test of the first truly worldwide grid computing infrastructure. Researchers from two national laboratories and ten universities across the United States participated in the test, which saw data transferred around the world at a rate of up to one gigabyte per second.

Today's scientific discoveries in many fields, including particle physics, require massive amounts of data and the dedication of thousands of researchers. Grid computing transforms the way such scientists plan and conduct research. The current test is a crucial step on the way to making data from the Large Hadron Collider, the world's largest

Stager Hall in Evanston and Monday, February 20 at 7:30 p.m. in the DePaul University Concert Hall in Chicago. The cost is \$15 for physicists and physics educators and \$10 for students with a valid ID. For tickets, call 312-225-5226 and mention the code words: "super-symmetry" to access the discount.

Rocketry Meeting

[The Fermilab Association of Rocketry](#) is having their monthly club meeting on February 15 at 5pm in the Users Center TV room. We are always looking for new members, so anyone interested in model rocketry is most welcome.

Folk Club Barn Dance

[Fermilab Folk Club Barn Dance](#) Sunday, Feb. 19 at 2 p.m. with music by the Sundogs and calling by Paul Tyler.

Professional Development Schedule:

Classes are added weekly. To see the most recent schedule, visit the Office for Professional and Organizational Development [website](#).

Summer Housing Requests

The Fermilab Housing Office is now taking requests for houses, apartments, and dormitory rooms for the summer of 2006. Since there will be a large influx of experimenters, and requests are anticipated to be in excess of our available facilities, you are urged to submit your request for reservations to the Housing Office by Wednesday, March 1, 2006. Requests can be made for any period and need not commence on any particular date. For further information, please call (630) 840-3777 or email housing@fnal.gov. Individual housing requests can be made by using our [online housing request form](#).

scientific instrument, available to scientists worldwide when the accelerator begins operating in 2007 at CERN in Geneva, Switzerland. In the current months-long test, or "service challenge," data were transferred from CERN to 12 major computing centers around the globe, including Brookhaven National Laboratory and Fermi National Accelerator Laboratory, and to more than 20 other computing facilities, ten of which are located at U.S. universities.

[Read More](#)

(Requests for multiple housing units are best handled by direct email.)

[Upcoming Activities](#)