

## Calendar

**Tuesday, Nov. 6**  
**11 p.m.**

Academic Lecture Series -  
Curia II

Speaker: B. Dobrescu,  
Fermilab

Title: Physics in Extra  
Dimensions - Part 4

**3:30 p.m.**

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
THERE WILL BE NO  
ACCELERATOR PHYSICS  
AND TECHNOLOGY  
SEMINAR TODAY

**Wednesday, Nov. 7**

THERE WILL BE NO  
FERMILAB ILC R&D  
MEETING THIS WEEK

**3:30 p.m.**

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

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

## Weather



**Breezy 42°/23°**

## [Extended Forecast](#)

## [Weather at Fermilab](#)

## Current Security Status

[Secon Level 3](#)

## Wilson Hall Cafe

## Feature

### Gong rings in new tradition

Wine and cheese lovers are already familiar with the new ringing sound punctuating their Friday afternoon: the toll of a Korean gong now signals the start of Joint Experimental - Theoretical Physics Seminars at 4 p.m. The gong, which has taken the place of the laboratory's cow bell, is a present to Young-Kee Kim and Fermilab from Kim's father in Korea.

"My father is very interested in Korean art and music," Kim said. "He plays Korean musical instruments, he sings, and he dances." This summer, at her bequest, Kim's father gave her a gong to bring back with her to the laboratory at the end of August.

The high-pitched cow bell used to call Fermilab employees to Friday lectures. Kim had hoped to find a way to replace its toll with a more gracious sound. This summer, Kim found her inspiration when she heard gongs being played at the Lepton-Photon conference in Daegu, Korea.

"I was attracted to the gong sound because I grew up with it," she said. In her Korean village, farming people would play different sized gongs together in celebration of a harvest or festival. The gong adds Asian culture to Fermilab's international community, Kim said.

"The gong propagates sound so well," Kim said, describing its sound as "gorgeous." She offers the gong to anyone who would like to use it to call people together for lectures and events. Those interested should contact

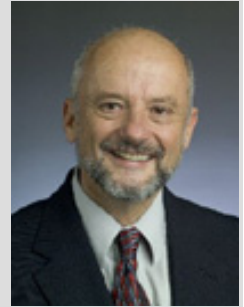


Fermilab Deputy Director Young-Kee Kim holds a gong, the new instrument used to call the laboratory to lecture.

## Director's Corner

### Key decision

DOE Under Secretary for Science Dr. Ray Orbach introduced DOE Order 413.3, the Project Management Order, to a broad international audience during the joint meeting of the American Linear Collider Physics Group and the Global Design Effort (ALCPG07) at Fermilab. While new to many in the audience, DOE Order 413.3 is well known to those who at Fermilab. At the same time as ALCPG07 - and following Order 413.3 - we were undergoing an extensive project review for NOvA at Argonne National Laboratory to achieve one of the key milestones in that project: Critical Decision 2, or CD-2. We are very thankful to our colleagues at Argonne for providing the facilities for the review while ALCPG07 was taking place at Fermilab.



Pier Oddone

Order 413.3 provides the DOE with a rigorous step-by-step process to carry out projects, from their conceptual development through approval for operations. Progress in a project is marked by a set of key decisions starting with the decision that there is a "mission need" (CD-0), followed by "approval of the selection and cost range" (CD-1), "approval of the performance baseline" (CD-2), "start construction" (CD-3), and finally "approval for the start of operations or project completion" (CD-4). These key decisions apply to all projects undertaken by the DOE. For international projects, DOE Order 413.3, with its key decisions, applies to the U.S. portion of the projects.

Each one of the key decisions is preceded by an extensive and thorough review by a committee of experts both from the field and from the DOE. CD-2 is especially detailed and difficult to achieve as it establishes the cost and schedule baseline. For this review, the NOvA team posted nearly 4700 pages of documentation to the review committee's website. The review team led by Danny Lehman worked for three days analyzing all aspects of the project, from the construction of the building in Minnesota, to the acquisition of

**Tuesday, Nov. 6**

- Tomato bisque
  - Lemon pepper club
  - Beef with peppers
  - Smart Cuisine: Tortellini alfredo
  - Grilled chicken caesar wrap
  - Assorted slice pizza
  - Rio Grande taco salads
- \*Carb Restricted Alternative*

[Wilson Hall Cafe Menu](#)**Chez Leon****Wednesday, Nov. 7****Lunch**

- Chipotle chicken w/corn cakes
- Latin confetti salad
- Rum pecan cake

**Thursday, Nov. 8****Dinner**

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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

Marilyn Smith at [oboe@fnal.gov](mailto:oboe@fnal.gov).

-- *Haley Bridger*

**Feature****Former Fermilab fellow wins Sukurai Prize**

Alexei Smirnov and Stanislav Mikheyev are the recipients of the American Physical Society's 2008 J. J. Sakurai Prize "for pioneering and influential work on the enhancement of neutrino oscillations in matter, which is essential to a quantitative understanding of the solar neutrino flux." Smirnov was a Frontier Fellow in Fermilab's Theoretical Physics Department in 2001.

Mikheyev, of the Abdus Salam International Centre for Theoretical Physics in Trieste; and Smirnov, of the Russian Academy of Sciences, showed in 1985 that neutrino flavor transitions are enhanced during the propagation of neutrinos through dense solar matter for the high-energy neutrinos produced in the Boron-8 reaction. Their results followed work by theorist Lincoln Wolfenstein. The enhancement is now widely known as the Mikheyev-Smirnov-Wolfenstein effect. It resolved the long-standing puzzle why electron neutrinos arrive at Earth in smaller numbers than are created according to the standard solar model.

All solar neutrino experimental results, including the recent results from the Borexino experiment, are consistent with this interpretation.

[Read more](#)

**Photo of the Day****A different view**

materials, fabrication, installation and commissioning of the detector, to the delivery of the necessary accelerator and beamline improvements. In all, sixteen lines of inquiry were followed.

After the review the committee made the recommendation to grant CD-2 once a few suggestions made by the committee are put in place. This is a great achievement for the NOvA team. The project is critically important to maintain leadership with the neutrino program at Fermilab well into the next decade. Many colleagues in the laboratory and the DOE site office worked extremely hard to make this achievement possible and have earned the right to work equally hard in the future to make the project a reality. Kudos!

**Accelerator Update****Nov. 2 - 5**

- Four stores provided 36 hours and two minutes of luminosity

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

**Announcements****Project X Accelerator Physics and Technology workshop Nov. 12-13**

Fermilab will host a workshop to discuss the accelerator physics and technology issues of Project X. The workshop will also explore possible areas of overlap and interest between various particle accelerator laboratories and universities. For more information or to register, see the Accelerator Physics and Technology Workshop for Project X [Web site](#).

**Project X physics workshop Nov. 16-17**

Fermilab will host a user's workshop Nov. 16-17 to discuss the physics of Project X. The group will meet at 8:30 a.m. Friday, Nov. 16, in One West. A wine and cheese talk by Michelangelo Mangano runs from 4 to 5:30 p.m. The Saturday session will be partly in One West, but also will include parallel sessions in different rooms. Streaming video of the sessions will be provided. The agenda can be found [here](#). You should register if you plan to attend in person or via streaming video. [Online registration](#) is available.

**Flu shot clinic today**

The Fermilab Medical Office will be offering a flu shot clinic on Tuesday, Nov. 6, 2007. If you have received the flu shot, please ignore this

[Village Machine Shop employee Louis Ramirez submitted this photo of a red bat hanging upside down in a tree outside the Machine Shop. The photo was taken Friday, Nov. 2.](#)

**In the News**

**Dark matter not a done deal?**

**From *ScienceNOW Daily News*, Oct. 31, 2007**

Some arguments will never end. A year ago, astronomers reported observations that were widely hailed as proof positive for the existence of dark matter, the mysterious stuff whose gravity holds the galaxies together. But now a different team says that the very same observation can be explained by a controversial theory that rejects dark matter and alters the rules of gravity.

[Read More](#)

notice. You are eligible to receive the flu vaccine free if you are an active, full-time, regular employee or a term or temporary employee. Contractors, family members of employees, visitors, experimenters, seasonal employees, dayworkers, on-call workers or retirees are not eligible. The clinic will be held in the ES&H Training Room on the ground floor of Wilson Hall from 9 a.m. to 12:30 p.m. Advance registration is required by calling x3232.

**EAP office hours temporary change**

The EAP office will be open today, Nov. 6, from 9 a.m. to 1 p.m. but will be closed Wednesday, Nov. 7, and Friday, Nov. 9. The EAP office will resume the regular schedule on Wednesday, Nov. 14. The EAP is available 24/7 by calling (800) 843-1327.

[Additional Activities](#)