

Calendar

Wednesday, June 23

[Lattice 2004](#)

2:30 p.m. Special Seminar - Curia II

Speaker: P. Schlein, University of California, Los Angeles

Title: Glueball Physics at BTeV and LHCb

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Fermilab Colloquium (NOTE LOCATION)- Auditorium

(In association with the Symposium "Lattice 2004")

Speaker: K. Wilson, Ohio State University

Title: The Origins of Lattice Gauge Theory

Thursday, June 24

[Lattice 2004](#)

THERE WILL BE NO THEORETICAL PHYSICS SEMINAR THIS WEEK

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

Wilson Hall Cafe

Wednesday, June 23

Vegetable Beef soup

Quarter Pound Hot Dog in a Soft

Pretzel Roll \$4.75

Turkey & Peppers \$3.50

Country Fried Steak with Pepper Gravy \$3.75

Beef & Cheddar Panini w. Sauteed Onions \$4.75

Assorted Personal Sized Pizzas \$3.75

Nobel Laureate Kenneth Wilson Speaks at Today's Colloquium

Today at 4:00 p.m. in Ramsey Auditorium, Kenneth Wilson of The Ohio State University will discuss "The Origins of Lattice Gauge Theory." Wilson will present a historical account of lattice gauge theory, beginning with related work in the 1960s.



Kenneth Wilson

Wilson's research has encompassed elementary particle theory, condensed matter physics, quantum chemistry and computer science. He was awarded the 1982 Nobel Prize in physics for his theory for critical phenomena in connection with phase transitions.

Wilson is a professor of physics at Ohio State, where he is heavily involved in efforts to reform K-12 education. The author of "Redesigning Education," he currently co-directs Learning by Redesign, an organization designed to support novel ideas on educational reform. Before speaking at today's colloquium, Wilson will meet with 30 QuarkNet teachers from centers at Purdue University, Kansas State University and the University of Missouri-St. Louis to discuss education and physics.

Wilson's colloquium is presented in association with the Lattice 2004 symposium.

Two Apprentices Graduate from Fermilab Machine Shop Apprenticeship Program



Apprentices Raven Mabe-Wortman (left) and Gary Markiewicz (right) with Machine Shop Head Charles Matthews (Click on image for larger version.)

After completing five years of intensive hands-on training and coursework, Apprentices Gary Markiewicz and Raven Mabe-Wortman graduated from the Fermilab Machine Shop Apprenticeship Program this spring. "We were very proud of this class," said Charles Matthews, Head of the Technical Division's Machine Shop. "I'm sure that we frustrated them occasionally as we demanded a lot, but we wanted them to stand on their own two feet."

Fermilab's Apprenticeship Program, which is sponsored and approved by the Department of Labor, has been training one to four apprentices every four to five years since 1969. The program changed from a four to a five-year program ten years ago when it became clear that an extra year of training was necessary for the increasing number of computerized equipment in the shop. "The Machine Shop is an integral part of the Technical Division, and services the

Cavatappi Pasta with Italian Sausage &

Tomato Ragu \$4.75

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Weather



Chance Thunderstorms 78°/57°

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Glueball Physics in BTeV and LHCb

Special Seminar today at 2:30 p.m. in Curia II

Quantum Chromodynamics leads one to expect the existence of "glueballs": hadrons without valence quarks and predominantly made of gluons. Some thirty years after they were predicted the experimental situation is still very unclear. Peter Schlein of UCLA will propose that diffractive interactions in BTeV and LHCb will provide a glueball-rich and relatively clean environment.

In the News

From *ChorusAmerica*, Summer 2004

Singing While You Work

...Anecdotal evidence suggests that choruses make a very positive contribution to the workplace. In outfits ranging from the Social Security Administration, which has fielded a choir since 1939, to more recent creations like Ora*Cappella, singing together can serve a deep need for the employees. At Fermilab, a U.S.-government funded high energy physics lab in Illinois that investigates, among other things, the origin of the universe, the Fermilab Singers, a 20-member chorus, meets once a week at lunchtime. It is headed by a distinguished English physicist, populated by a range of Fermilab employees including physicists, engineers, and computer experts, and is accompanied by a leading astrophysicist. The choir sings an international repertoire that reflects that lab's employee base. "The people we work with know that Wednesday at noon is sacred," says Anne Heavey,

entire laboratory," said Rich Stanek, Associate Head of the Technical Division. "The Apprenticeship Program is very important because it allows us to bring in new people and give them the time and instruction necessary to develop into qualified machinists."

Mabe-Wortman, who is the first female apprentice to graduate from the program, is now pursuing a college degree in CNC. "Raven developed an interest in machining while in high school because her father was a machinist," Matthews said. "She was very quick to learn, especially on the CNC equipment, and we hope that she will eventually come back to the lab." Markiewicz, who was a mechanical technician in PPD prior to starting the apprenticeship program, recently joined Fermilab's Machine Shop as a full-time employee. "There were a lot of strenuous times, but there is no doubt in my mind that it was well worth it," he said. Markiewicz is currently developing a program on a Computer Numerical Control machine that will create shielding for magnets in the ring transfer lines.

"The Apprenticeship Committee and Machine Shop management do an excellent job training the apprentices and always make sure that they graduate as well-rounded machinists," Stanek said. "We are very happy to have had two apprentices graduate this year."

Announcements

who organizes the choir. "It's not a work priority, but a life priority."

[read more](#)

New Book Purchase Suggestion Lists
New [book purchase suggestion lists](#) for the week of June 22 are now available online. These include Majors book lists in four subject areas. There is also an Amazon suggestion list in the form of a shopping cart, viewable by entering the password "library."

International Folk Dancing

International Folk Dancing will be held at 7:30 p.m. Thursday, June 24, at the Geneva American Legion Post.

Newcomers are always welcome. Info at 630-584-0825 or 630-840-8194 or

folkdance@fnal.gov.