

Calendar

Wednesday, July 27

11:00 a.m. Research Techniques

Seminar - Curia II

Speaker: M. Ellis, Imperial College,

London

Title: A Scintillating Fibre Tracker for MICE

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

Thursday, July 28

2:30 p.m. Theoretical Physics Seminar - Curia II

Speaker: C. Macesanu, Syracuse University

Title: The Higgs Sector on Two-Sheeted Space-Time

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

6:00 p.m. University of Tevatron Lecture Series - 1 West

Speaker: E. Kolb, Fermilab/University of Chicago

Title: Astro/Cosmology Part II

Weather



Partly Cloudy **74°/53°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Vietnamese Students Build Bridges With Lab Support



"What you see in front of you are the pioneers of experimental particle physics in Vietnam," said Boaz Klima. Hong anh Tuan (left) and Le thi Lien Chi arrived from the Physics Institute of Ho Chi Minh City in June to conduct research at DZero.

Last month, Le thi Lien Chi and Hong anh Tuan arrived at Fermilab from Vietnam to conduct three months of research at DZero, marking the fifth year of Fermilab's special effort in support of particle physics in Vietnam. Chi and Tuan continue the tradition of students from the Physics Institute of Ho Chi Minh City traveling to the lab to take part in the type of research that is impossible to conduct in their own country.

"My group has become the bridge for collaboration in science between US and Vietnam," said Chi and Tuan's professor, Nguyen Mong Giao.

Having recently finished their masters degrees in particle physics in Vietnam, Chi and Tuan will train, study and work at DZero for three months, bringing their increased knowledge and expertise back to Vietnam in September. "Vietnam needs many qualified scientists," said Giao.

Fermilab Summer Students: Focus on Amanda Weinmann



Amanda Weinmann works on the program Geant4 in an office she shares with Erik Ramberg. (Click on image for larger version.)

Amanda Weinmann will begin her third year at St. Mary's University this fall, but until then she is hard at work in the Neutron Therapy program here at Fermilab. A double major in Bio-Physics and Engineering Physics, Weinmann applied for a summer internship at the lab with almost no idea of what she would be doing. "I included my interest in Bio-physics in the application," Weinmann recalled, "but the first I heard about Neutron Therapy was here at the lab."

Weinmann is one of seven summer students in the Science Undergraduate Laboratory Internship (SULI) program at Fermilab. Spending a large part of her summer in front of a computer, Weinmann is working on the program "Geant4," developed and used mainly at CERN. The program is designed to model different geometries, and Weinmann is applying this capability to digitally replicate a patient's anatomy. "We're modeling the patient by taking CT scans and using those densities to determine what is bone, or muscle, or other tissues,"

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Wednesday, July 27

Italian Wedding with Meatballs

Diner Style Patty Melt \$4.85

Chicken a la Mer \$3.75

Beef & Broccoli \$3.75

Greek Chicken Panini with Feta Cheese
\$4.85

Sicilian Style Pizza \$3.00

Grilled Chicken Bowtie in a Tomato

Cream Sauce \$4.85

The Wilson Hall Cafe now accepts Visa,
Master Card, Discover and American
Express at Cash Register #1.

[Wilson Hall Cafe Menu](#)

Chez Leon

Lunch

Wednesday, July 27

Salad with Peanut Dressing

Soy and Ginger Beef with Noodles

Summer Fruit Medley

Lunch

Wednesday, August 3

Tri-Colored Tortellini Salad

Lemon Cheesecake w/Blueberry Sauce

Dinner

Thursday, August 4

Smoked Salmon Plate

Veal Picatta

Spinach Fettuccini w/ Tomatoes & Cream

Chocolate Fondue w/Fruit

[Chez Leon Menu](#)

Call x4512 to make your reservation.

Info

"These connections to the United States and to Fermilab have been and will continue to be very good for my country in the future."

Chi, Tuan and Giao come from a small particle physics group in Vietnam, and have no local access to high-energy physics experiments. "Our group is very small compared to Fermilab," said Giao, Vietnam's only professor of experimental particle physics. "We now have more than 10 people, but they are all students."

Boaz Klima, DZero physicist and architect of the DZero-Vietnam connection, said he has been impressed by the enthusiasm and hard work of the students who have traveled to Fermilab. "At DZero, these students get the best possible education, and then they go back to Vietnam and strengthen the group there with their understanding of how scientific research is conducted," he said.

Fermilab's directorate supports an average of one Vietnamese student at all times, with each student coming for three to four months. So far, five students have traveled to Fermilab, and three have subsequently been accepted to American university graduate programs.

"The infrastructure in Vietnam needs upgrading for them to be effective on their own," said DZero spokesman Jerry Blazey. "Fermilab's and DZero's investments are important in their efforts to be full partners in international science."

--Kelen Tuttle

In the News

she said. "Then we can superimpose the image from the Geant4 simulation onto a CT scan and see where the neutron beam's energy will be deposited before doing any work on the patient." Accurately targeting a tumor is a considerable challenge in Neutron Therapy. Weinmann's work will help increase its effectiveness by making sure the maximum amount of energy possible is directed at the tumor and not at any adjacent tissue.

Although she has seen some individual cells treated with Neutron Therapy, Weinmann has not worked with any patients this summer. "My favorite part of the internship is the collaboration," she says. "It's a big part of research, and this is my first experience with that." Although unsure of a specific field, Weinmann hopes to make a career of medical research. Her workload will remain heavy after her stay at Fermilab, as she attempts to balance indoor and outdoor track with preparation for the MCATs.

--Amelia Greene

DISUN Connects Universities to the LHC Through Grid Computing



DISUN will provide access to data from the Compact Muon Solenoid experiment at the Large Hadron Collider at CERN in Geneva, Switzerland. (Image courtesy of CERN) (Click on image for larger version.)

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From the *Interactions News Wire*, July 26, 2005

Berkeley Lab Press Release:

A gold mine for science

It is the deepest mine in the United States and was the site of the single largest gold deposit ever found in the Western Hemisphere. What has, for the past 125 years, been known as the Homestake gold mine, outside the town of Lead, in the Black Hills of South Dakota, could become the home of an enormous underground multipurpose national scientific laboratory.

The National Science Foundation has announced that the Homestake gold mine is one of two finalists in the competition to determine the future location of the Deep Underground Science and Engineering Laboratory (DUSEL). The Homestake underground lab proposal, which is being led by Kevin Lesko, a nuclear physicist with the U.S. Department of Energy's Lawrence Berkeley National Laboratory (Berkeley Lab), will receive a \$500,000 grant from NSF to go forward with a conceptual design for DUSEL.

[Read More](#)

Scientific research and grid computing at universities across the country took a big step forward recently with an award of \$10 million from the National Science Foundation to the Data Intensive Science University Network. DISUN will allow over 200 physicists at U.S. universities to study the fundamental properties of particles and forces by providing access to data from the Compact Muon Solenoid experiment at the Large Hadron Collider at CERN in Geneva, Switzerland.

DISUN is a collaboration of five U.S. universities that will develop, deploy and operate a distributed computing infrastructure that will allow university physicists to analyze data collected on another continent, and researchers in other sciences to strengthen participation in national and international research activities.

[read more](#)

--Katie Yurkewicz

Announcements

Fermilab Today Search Engine Temporarily Not Available

Due to technical problems, the *Fermilab Today* search engine is temporarily not available. Thank you for your patience while the problem is being fixed.

International Folk Dancing

International Folk Dancing will meet Thursday, July 28, in Ramsey Auditorium in Wilson Hall. Dancing begins at 7:30 p.m. with teaching earlier in the evening and request dancing later on. Newcomers are welcome and you do not need to come with a partner. Dancing will continue in the auditorium through the summer. Info at 630-584-0825 or 630-840-8194 or folkdance@fnal.gov.

