Fermilab Today

Tuesday, November 13, 2007

Calendar

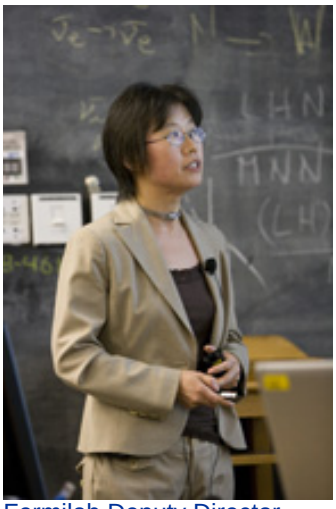
Tuesday, Nov. 13
9 a.m. - 4 p.m.
Project X Accelerator Physics and Technology Workshop - Ramsey Auditorium
3:30 p.m.
DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over
THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

Wednesday, Nov. 14
10 a.m.
Special Accelerator Physics and Technology Seminar - Curia II
Speaker: C. Tschalaer, B. Franklin, A. Siddiqui, F.Wang – Massachusetts Institute of Technology
Title: Optical Stochastic Cooling Experiment Plans at MIT/Bates and Prospects of OSC at the Tevatron
THERE WILL BE NO FERMILAB ILC R&D MEETING THIS WEEK
2:30 p.m.
Special Particle Astrophysics Seminar - Curia II
Speaker: W. Valkenburg, LAPP, Annecy
Title: What do WMAP and SDSS Really Tell About Inflation?
3:30 p.m.
DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over
4 p.m.
Fermilab Colloquium - One West
Speaker: A. Melissinos, University of Rochester
Title: Lasers in High Energy Physics

Click here for NALCAL, a weekly calendar with links to additional information.

Feature

Pair of Project X workshops address Fermilab's future



Fermilab Deputy Director Young-Kee Kim presents the Steering Group report at the P5 subcommittee meeting in late September.

Fermilab wants you to help set the future path of high-energy physics.

A pair of workshops are giving employees and others the chance to help craft the physics case for the laboratory's next wave of proposed experiments.

Today the laboratory is hosting the second day of the Accelerator Physics and Technology Workshop for Project X, with an eye toward finding overlap between particle accelerator laboratories and universities. More than 160 people signed up to participate.

Nov. 16-17, Fermilab and the Users' Executive Committee will host a Workshop on Physics to prepare a detailed account of the science behind the Steering Group Report and Project X. Registration is required for the free workshop.

"A high intensity proton source is only viable if the physics motivation is strong," said Kevin Pitts, Fermilab Users' Executive Committee chairman. "This workshop will provide an opportunity for the community to come together to talk about the physics program that this machine might provide, and how that physics program would fit into the worldwide landscape of high-energy physics in the next decade."

The Steering Group Report proposes Fermilab conduct research and development on Project X, while maintaining the ILC as the laboratory's paramount goal.

In September Fermilab Deputy Director and Chair of the Steering Group, Young-Kee Kim,

Director's Corner

Reviewing, for a change

Pier Oddone

I am currently participating in the review of DAPNIA at the Saclay laboratory in France. DAPNIA is a research institute of the Direction des Sciences de la Matière within the Commissariat à l' Énergie Atomique and is devoted to the study of fundamental laws of the universe. It is a very large enterprise with some 200 scientists and 500 engineers, technicians and post-docs. Since DAPNIA does not operate accelerators, its staff is devoted entirely to experiments and technology development across a broad front. A separate institute within Saclay holds the theorists.

As part of its exploration of the energy frontier, DAPNIA has been a valuable collaborator in DZero at Fermilab, and we collaborate together in CMS at the LHC. Beyond these collaborations, we share many interests and strategic directions: at the energy frontier, in neutrinos physics, in particle astrophysics and in the development of technology. The independent international review that occurs every three years is an opportunity to learn, as much for the reviewers as for the scientists whose programs we are reviewing. Beyond the many technical developments, of particular interest to me is the evolution of an institute with similar interests but external constraints that are very different from those we have at Fermilab.

Probably the most striking aspect of DAPNIA is the close integration that exists in its programs in nuclear physics, particle physics and particle astrophysics, which are carried out using space probes. Underlying this integration are extremely strong technology development departments. They range from building superconducting magnets for detectors such as the CMS solenoid and the ATLAS barrel toroid and detectors for particle physics to developing astrophysics instruments for space probes.

Many of the historical boundaries between

Weather

Sunny 63°/44°

Extended Forecast
Weather at Fermilab

Current Security Status

Secon Level 3

Wilson Hall Cafe

Tuesday, Nov. 13
- Golden broccoli & cheese
- Southern style fish sandwich
- Coconut crusted tilapia
- Spaghetti w/meatballs
- La grande sandwich
- Assorted slice pizza
- Chicken fajitas

**Carb Restricted Alternative*

Wilson Hall Cafe Menu

Chez Leon

Wednesday, Nov. 14
Lunch
- Pork satay w/peanut sauce
- Sautéed Asian vegetables
- Steamed jasmine rice
- Banana spring rolls

Thursday, Nov. 15
Dinner
- Curried butternut soup
- Spiced rubbed duck w/port wine sauce
- Corn risotto w/tomato and basil
- Rum raisin soufflé

Chez Leon Menu
Call x4598 to make your reservation.

Archives

Fermilab Today

Result of the Week

Safety Tip of the Week

ILC NewsLine

presented the Steering Group's proposal to P5. P5 expressed interest in the plan, but requested a more detailed physics case before its review of the plan. It is expected that the 16-member advisory group will review the plan sometime early next year and make a recommendation to HEPAP.

Several users have thrown their support behind the report, asking for engineering work to begin as soon as possible. But Kim has called on the users' community to make the intellectual investment in making Project X attractive from a scientific perspective first.

"Let's do this one step at a time," Kim said. "Let's get together and evaluate a physics case. Only with a clear physics case, our community will support Project X."

Information on the Physics Workshop can be found online.

Those wishing to submit posters, should contact Brendan Casey.

Registration is requested for the Physics workshop and to view the streaming video.

-- Tona Kunz

Fermilab Press Release

Industry and research heavyweights collaborate to demonstrate data transport capability at SC07

High-performance computing and communications organizations pool capabilities to support vast bandwidth needs for particle physics and other applications

RENO, Nev. - A group of research and industry technology leaders today announced two demonstrations at the SC07 Conference in Reno, Nev. to show leading-edge capabilities designed for the high-bandwidth needs of the research community worldwide. The demonstrations involve the transport of large volumes of data at rates significantly in excess of 10 gigabits-per-second (Gbps) by infrastructure built to support the Large Hadron Collider (LHC), over a 40 Gbps network and the use of Generalized Multi Protocol Label Switching (GMPLS) User to Network Interface (UNI) signaling between routers and optical systems to provision bandwidth on demand.

"The cooperation between these leading disciplines that we encounter in our system are because of the arrangement of funding agencies and historical developments. These do not apply to DAPNIA, which creates considerably more freedom in defining a coherent program from a scientific perspective. This is especially striking in the astrophysics program. DAPNIA is historically a principal laboratory in France for developing space instruments, an expertise that arose from the development of particle and nuclear instrumentation. Now the discipline and quality control that are needed to develop space probes infuse the development of instrumentation in all of the DAPNIA programs.

In the News

LHCb installs its precision silicon detector, the VELO

From *Interactions.org*, Nov. 12, 2007

One of the most fragile detectors for the Large Hadron Collider beauty (LHCb) experiment has been successfully installed in its final position. LHCb is one of four large experiments at CERN[1]'s Large Hadron Collider (LHC), expected to start up in 2008. For the LHCb collaboration, installing the Vertex Locator (VELO) detector into its final location in the underground experimental cavern at CERN has been a challenging task.

Read More

Accelerator Update

Nov. 9-12
- Two stores provided 21 hours and 27 minutes of luminosity
- Cryo Coordinator diverts nitrogen delivery to fill empty A0 dewar
- Accesses across the complex to restart vacuum pumps and check LCW and vacuum valves
- Experts help operators turn on Pelletron

Read the Current Accelerator Update
Read the Early Bird Report
View the Tevatron Luminosity Charts

Announcements

Info

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

Send comments and
suggestions to:
today@fnal.gov

technology organizations is a model of collaboration that propels innovation. Our members from industry and the research community are working together to push the technology boundaries so scientific researchers can do things that would have been unimaginable ten years ago," said Rick Summerhill, chief technology officer, Internet2. "These demonstrations are exemplary of the benefits resulting from sharing knowledge and resources to usher in the next wave of technological advancements."

The first demonstration involves high-volume data transmission between Fermi National Accelerator Laboratory's (Fermilab) LHC Tier 1 mass storage system and the SC07 show floor over a wide-area 40 Gbps network infrastructure, the highest-speed networking service available today. The LHC Tier 1 will transfer data at speeds significantly in excess of 10 Gbps to the LHC Tier 2 computational infrastructure in the Caltech booth on the SC07 show floor.

Read more

Benefit enrollment
Your opportunity to review and change your benefits for the 2008 plan year will be from Tuesday, Nov. 13 through Wednesday, Nov. 28. You will find enrollment materials on the Benefits Office Web site. Representatives from Blue Cross and CIGNA will be available on Wednesday, Nov. 14, from 8 a.m. to noon and Tuesday, Nov. 20, from 1 to 5 p.m. They will be located in the Aquarium Conference Room on the 15th floor of Wilson Hall.

Project X physics workshop Nov. 16-17
Fermilab will host a users' 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.

Secure Coding course Jan. 15 and 16
This course focuses on Web applications and clearly defines the software security problem. It introduces and describes a set of software security best practices called touchpoints and much more. Learn more and enroll

Scottish Country Dancing Tuesday
Scottish Country Dancing will meet today, Nov. 13, at Kuhn Barn on the Fermilab site. Instruction begins at 7:30 p.m. and newcomers are always welcome. Most dances are fully taught and walked through. You do not need to come with a partner. For more information call (630) 840-8194 or (630) 584-0825 or folkdance@fnal.gov.

Additional Activities