

Calendar

[Have a safe day!](#)

Wednesday, Oct. 14

3:30 p.m.

[DIRECTOR'S COFFEE BREAK](#) 2nd

Flr X-Over

4 p.m.

[Fermilab Colloquium](#) - One West

Speaker: Tijana Rajh, Argonne National Laboratory

Title: Nanoscience and

Nanotechnology: From Energy Applications to Advanced Medical Therapies

Thursday, Oct. 15

2:30 p.m.

[Theoretical Physics Seminar](#) - Curia II

Speaker: Tanju Gleisberg, SLAC National Accelerator Laboratory

Title: Multiparton Production at NLO with BlackHat and Sherpa

3:30 p.m.

[DIRECTOR'S COFFEE BREAK](#) 2nd

Flr X-Over

4 p.m.

[Accelerator Physics and Technology Seminar](#) - One West

Speaker: Yipeng Sun, CERN

Title: Beam Dynamics Aspects of Crab Cavities in the Large Hadron Collider

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

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather



Chance of showers
48°/38°

[Extended Forecast](#)
[Weather at Fermilab](#)

From *symmetry breaking*

The future of neutrino physics in Europe



A worker in the CERN Neutrinos to Gran Sasso tunnel at CERN.

For three days last week, more than 250 scientists gathered at CERN in Geneva, Switzerland, to discuss the future of European participation in the field of neutrino physics.

Neutrinos are a hot topic of study in the physics community because their properties may explain the existence of a universe made of matter. Neutrinos interact so little with other particles that trillions of them pass through our bodies without leaving a trace. They are by far the lightest of the known particles, and are also the least understood.

The [European Strategy for Future Neutrino Physics](#) workshop was a step toward establishing a roadmap for European participation in neutrino physics, and increasing coordination both within the European neutrino physics community and between the European community and the rest of the world.

Experiments underway around the world now and over the next five years may greatly advance our understanding of neutrinos, but physicists expect they will need to learn more. The possibilities for new accelerator-based neutrino facilities beyond 2015, and the R&D necessary over the next few years to determine the direction of neutrino research, were the focus of last week's workshop.

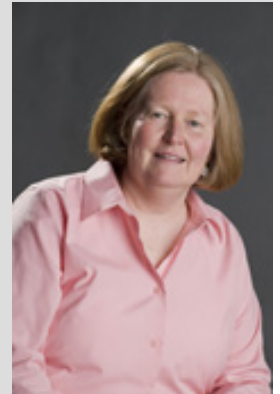
The workshop, organized by a special panel of the CERN Scientific Policy Committee, also investigated the role that CERN could play in the future of European and worldwide neutrino physics facilities. CERN has a long history of involvement in neutrino physics, including the use of neutrinos to discover the weak neutral current. But today, CERN's involvement in neutrino physics is limited to creating beams of neutrinos for experiments at Gran Sasso Laboratory in Italy.

From the Accelerator Division

Getting ready for the future

Elaine McCluskey, project manager of the Main Injector Neutrino Upgrade, wrote this week's column.

The laboratory has just completed another major shutdown of the Fermilab accelerator complex, and the Tevatron is producing collisions again.



Elaine McCluskey

During the shutdown, Fermilab finished the first phase of an important civil construction job in the Main Injector that will erect two new service buildings. The construction laid the groundwork for a new gap clearing kicker system and created connections between the accelerator tunnel and the future service buildings. When complete, the kicker system will help reduce beam losses in the Main Injector and enable Fermilab to provide higher-intensity particle beams for experiments such as NOvA. The service buildings will house power supplies and cooling equipment for beam operation.

The Main Injector Neutrino Upgrade work included the excavation and backfilling of the soil above the Main Injector tunnel and drilling holes through the concrete ceiling. Task managers closely coordinated this construction work with the shutdown work inside the tunnel to ensure that everyone could work safely and get their tasks done in the correct sequence.

Radiation safety received attention as well. When the Main Injector is in operation, its proton beam produces radiation such as X-rays. Concrete walls and shielding prevent any radiation from escaping the tunnel. When the beam is off, people can work in the tunnel, but low levels of radiation remain for some time. Hence we required the construction workers to complete the Fermilab Radiation Worker training. For additional protection, AD radiation technicians monitored all materials in the construction area for radiation.

The installation of 30 conduits in the roof of the Main Injector tunnel presented the opportunity for water to drip into the tunnel. The design work by our FESS engineering staff and the careful application of sealant have kept the tunnel dry and our equipment safe.

Best of all, our subcontractors, from Whittaker Excavating, of Earlville, Illinois, have had no injuries or lost workdays. They finished the first phase of the

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Wednesday, Oct. 14

- English muffin sandwich
- Beef barley soup
- Gyros
- Caribbean grilled salmon
- Liver with onions
- Beef and cheddar panini
- Assorted slices of pizza
- Grilled chicken bow tie pasta with tomato cream

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Oct. 14

Lunch

- Broiled tilapia with Thai coconut curry sauce
- Basmati rice
- Julienne of peppers
- Pear and ginger crisp

Thursday, Oct. 15

Dinner

- Spring mix salad with ruby grapefruit and toasted almonds
- Lamb chops with herb and olive crust
- Orange scented rice pilaf with fennel
- Vanilla ice cream with espresso-caramel sauce

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

[User University Profiles](#)

[ILC NewsLine](#)

The SPC panel will present a report to the CERN Council in December, for which last week's workshop provided critical input. The CERN Council is responsible for setting European strategy for particle physics as well as for deciding on future directions for the CERN laboratory.

The report will address the feasibility and merit of a European neutrino physics strategy as well as the possibilities for CERN, whether future facilities are located in Europe or elsewhere in the world.

For more information, visit the [agenda](#) for the meeting, which includes all presentations given at the meeting and abstracts for the 44 posters presented

— *Katie Yurkewicz*

In Brief

Phishing season



Fraudulent e-mailers, nicknamed phishers, try to steal personal information. Suspect e-mails should be verified by phone. Image courtesy of Brian Talbot.

Some Fermilab employees have reported receiving multiple unexpected e-mail messages from dubious addresses this month.

These messages are phishing, an attempt to gather information through electronic communication that can be used to steal your identity, your money, or both.

Any e-mail request for your password or any kind of personal information such as your bank account number or credit card number is not a legitimate request; ignore it.

But not all phishing messages ask directly for passwords or credit card numbers. The goal of some of these messages is to elicit a response to confirm whether the e-mail address is valid and can be sold or used later.

The best way to check the validity of a message is to make a phone call. Messages from laboratory staff either include a telephone number or you can look up their phone number to verify the e-mail's authenticity. If a message purports to come from a government agency, give that agency a call.

If you accidentally respond to a phishing email with any information that should not be public, contact the Service

construction on time and the Main Injector beam is back up and running. This is a tribute to the many people across the laboratory who coordinated the work, protected the accelerator systems and restored them for on-time operations.

Whittaker is now completing the service buildings and installing mechanical and electrical services. We expect this work to be complete by the end of December.



One of the two MINU service buildings, named MI39.

Safety Update

ES&H weekly report

There were no injuries reported this week. Find the full report [here](#).

[Safety report archive](#)

Announcements

Latest Announcements

[Children's Halloween party - Oct. 23](#)

[Claim your bike outside Wilson Hall before Thursday](#)

[NALWO Seminar - An Introduction to Neurofeedback today](#)

[Dealing With Difficult People Lunch and Learn today](#)

[Fermilab Toastmaster can help you find your voice - Oct. 15](#)

[Applications of High-Intensity Proton Accelerators workshop - Oct. 19-21](#)

[Access 2007: Intro class - Oct. 20](#)

[Interpersonal Communication Skills class - Oct. 21](#)

[Buttered Rum performs at Fermilab Arts Series - Oct. 24](#)

Info

Desk at x2345 or contact [computer security](#).

In the News

Fermilab Today

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

Send comments and suggestions to:
today@fnal.gov

Visit the Fermilab
[home page](#)

Magnet lab to investigate promising superconductor

By *PhysOrg*, Oct. 13, 2009

The Applied Superconductivity Center at the National High Magnetic Field Laboratory has received \$1.2 million in funding from the U.S. Department of Energy to understand and enhance a new form of superconducting material that could be used to build more-powerful magnets used in a wide range of scientific research.

[Read more](#)

[Director's Award nominations accepted until Oct. 26](#)

[Conflict Management and Negotiation Skills - Oct. 28, Nov. 11](#)

[Facilitating Meetings That Work - Nov. 4](#)

[Fred Garbo Inflatable Theatre at Fermilab Arts Series - Nov. 7](#)

[Process Piping \(ASME B31.3\) class offered in October and November](#)

["The Night Before Christmas Carol" at Fermilab Arts Series - Dec. 5](#)

[Scottish Country Dancing Tuesday evenings at Kuhn Village barn](#)

[International folk dancing Thursday evenings at Kuhn Village barn](#)

[Annual Enrollment now running](#)

[Discounted Fright Fest tickets available](#)

[Additional activities](#)

[Submit an announcement](#)