

Calendar

[Have a safe day!](#)

Friday, Oct. 23

10:30 a.m.

[Research Techniques Seminar](#)

- One East

Speaker: Alexander Gektin,
Institute for Scintillation
Materials, Kharkov

Title: New Generation of HEP
Scintillator: Search and
Development Criteria

2 p.m.

[Computing Techniques](#)

[Seminar](#) - Curia II

Speaker: Sebastian Lopienski,
CERN

Title: Developing Secure
Software

3:30 p.m.

DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over

4 p.m.

[Joint Experimental-Theoretical](#)
[Physics Seminar](#) - One West

Speaker: Fabrizio Margaroli,
Purdue University

Title: MET + b-Jets: From
Single Top Observation to
Limits on Higgs at CDF

5 - 7 p.m.

Art gallery public reception -
2nd Flr X-Over

John Chervinsky's "[An](#)
[Experiment in Perspective](#)"

Saturday, Oct. 24

8 p.m.

[Fermilab Arts Series](#) - Ramsey

Auditorium

Hot Buttered Rum

Tickets: \$25/\$13

NOTE: 7 p.m. - special talk in
One West about their
alternative fuel tour van.

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

Campaigns

Feature

Workshop designs possible futures for Project X



CERN physicist Jean-Pierre Revol discusses Monday the potential of accelerator-driven subcritical systems to recycle nuclear waste.

The superconducting radio frequency technology that Fermilab scientists are helping to develop could one day pave the way to cleaner nuclear power.

Physicists and engineers from around the world considered this idea and others at a workshop Fermilab hosted this week on the applications of high-intensity proton accelerators.

"The purpose of this workshop is to help define what Project X is, what it isn't and what it could be," said attendee Michael Zisman, project manager for the Neutrino Factory and Muon Collider Collaboration.

Advocates of nuclear power have presented it as an alternative to burning coal, which releases harmful chemicals into the environment. Critics oppose nuclear technology because the majority of conventional nuclear reactor fuel winds up as radioactive waste.

An international group of scientists have designed an accelerator-driven system that could produce energy and recycle waste.

Fermilab has no plans to get involved in nuclear energy production. But research and development related to the proposed Project X, along with its construction and operation, could provide a step toward this technology.

Recovery Act Feature

Hot computers, cool upgrades through Recovery Act funds



Air conditioning units in the High Availability Computing Center blow cool air beneath the room to floor vents, which are the square perforated tiles pictured above. The Recovery Act will fund the replacement of the cooling units, which are at the end of their operational life.

American Recovery and Reinvestment Act funds will allow Fermilab to replace 20-year-old cooling equipment in the Feynman Computing Center early next year with more efficient and reliable cooling units.

Eight 30-ton air conditioners will replace the High Availability Computing Center's 10 old units, which are at the end of their operational life. Replacing the units, which are currently operating at maximum capacity, will increase cooling and allow for more computers to be added in the future, said Gerry Bellendir, associate head for facilities and director of the project.

Most computers use small fans to cool electronics, but the quantity and density of computers in the high availability computing center can result in overheating, just as a desktop computer sealed in a small space eventually overheats. Keeping the room temperature within computer manufacturer specifications extends operational life of computers and reduces malfunctions.

The upgrades will also allow the Feynman Computing Center to migrate from a water-cooled system to a closed-loop, refrigerant-based system. Adam Walters, department head for facility operations in the Computing Division, said upgrading to a refrigerant-based system from a water cooling system will allow operation without the threat of water leaks

[Take Five](#)

[Tune IT Up](#)

Weather



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

Current Security Status

[Second Level 3](#)

Wilson Hall Cafe

Friday, Oct. 23

- Chorizo burrito
- Chunky vegetable soup with orzo
- Buffalo chicken wings
- Cajun breaded catfish
- Teriyaki pork stir-fry
- Honey mustard ham and Swiss panini
- Assorted slices of pizza
- Carved turkey

[Wilson Hall Cafe menu](#)

Chez Leon

Wednesday, Oct. 28

Lunch

- Flank steak with shitake mushroom sauce
- Ginger scallion rice
- Coconut custard

Thursday, Oct. 29

- Closed

[Chez Leon menu](#)

Call x3524 to make your reservation.

Archives

A surprising number of scientists and engineers, about 170, accepted the call to help map the future of Project X. Some of them, including scientists involved in the field of nuclear physics, had never visited Fermilab before.

Conference attendees broke into five working groups to hammer out the details of how Fermilab could build Project X for proposed machines like a muon collider or a neutrino source or for accelerator applications such as nuclear and material science.

"It's easier to make upgrades if you think about the possibilities in the beginning and try to avoid closing too many doors," Zisman said. "You never get it all right, but thinking about it gives you a fighting chance."

— Kathryn Grim

Recreation Feature of the Month

Classes, events and discounts for November

Editor's note: This is the fourth installment of a monthly article highlighting upcoming classes, events, clubs and discounts from the Recreation Department.

Fall is here, but that doesn't mean it is time to give up on your fitness. Fitness classes starting soon:

- Kyuki Do begins Nov. 2 to Dec. 9 on Mondays and Wednesdays from 5 to 6 p.m. in the Recreation Facility. Session fee is \$55.

This month, the Benefits/Recreation Department will also sponsor the following Wellness events:

- Newcomer's Lunch with recreation from noon to 1:30 p.m., Nov. 11 at Comitium, WH2SE.
- Lunch and Learn: Diabetes Awareness from noon to 1 p.m., Nov. 18 in Curia II. Presenter: Dr. Louis Casado
- Weight Watchers at Work Program: Free informational meeting coming soon. Call for more info or to RSVP for the meeting at x5427. Fermilab Today will publish the meeting date.

Club Meetings:

- [Toastmasters](#) from noon to 1 p.m. on Nov. 12, Wilson Hall's Snake Pit.
- Card-Making Open House: from 11:30 a.m.

damaging equipment.

The \$4.75 million allocated for the upgrades will also fund buying and installing cooling units for a new computing center being built on the third floor of the Feynman Computing Center. The Computing Division will install cooling units above the computers, blasting cool air down into the "cold" aisles between computer racks.

Both cooling projects will begin in the next few months after contractors install condensers on the roof of the Feynman Computing Center building this fall.

— Chris Knight

Visit Fermilab's [Recovery Act Web site](#).

Special Announcement

An Experiment in Perspective art gallery reception tonight

By day, John Chervinsky works on a device to sequence single-stranded DNA with the Harvard Nanopore Group. By night, Chervinsky creates science-inspired art.

Chervinsky's exhibition, "[An Experiment in Perspective](#)," will be on display in the second floor art gallery in Wilson Hall until Nov. 30.

His [black-and-white photography](#) portrays scientific ideas and concepts such as entropy, scientific measurements, the angle of repose and scientific analysis. By creating contrasts between those ideas and his subjects, Chervinsky takes on the intersection between science, nature and humanity.

"A landscape, you can look at it and be done with it," said Georgia Schwender, Fermilab's art gallery curator. "With his work, you need to think about it."

Chervinsky, who spent 18 years running a particle accelerator and designed and built beamlines at Harvard and Lawrence Livermore National Laboratory, thought Fermilab physicists and scientists would find his work interesting, Schwender said.

A free and public reception for the exhibition will take place today from 5 to 7 p.m.

Photo of the Day

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[User University Profiles](#)

[ILC NewsLine](#)

Info

Fermilab Today

is online at:

www.fnal.gov/today/

Send comments and suggestions to:

today@fnal.gov

Visit the Fermilab

[home page](#)

to 1 p.m. on Nov. 9, Wilson Hall Aquarium. Fee is \$5. RSVP x5427.

- Sustainable Energy Club meets at 5:10 p. m. Nov. 17 in the Users' Center Music Room.

Fall Athletic Leagues:

- Badminton Open House from noon to 1 p. m. Oct. 28 in the Recreation Facility Gym. Contact [Aaron Chou](#).
- Open Dodgeball coming soon. Contact [Mike Geelhoed](#) at x4977.
- Indoor Basketball League starts in November. Contact [Brian Niesman](#) at x6399.

Employees and users can also contact the Recreation Department to take advantage of discounts.

Special Discounts:

- Book Fair from 10 a.m. to 4 p.m. Nov. 17, and 8 a.m. to 3 p.m. Nov. 18 in the Wilson Hall atrium.
- Chicago Blackhawks tickets on certain [days](#). Special offer code: FNAL. Watch for additional dates to come.
- Chicago Bulls tickets at a discount. Check [here](#) for details.
- Thai Village Restaurant: \$7 Fermi Lunch Menu. Menus available in the Recreation Office or [online](#).
- AMC and Goodrich Theater tickets available in the Recreation Dept., \$7 each.

Feature

ES&H hosts safety fair

Service Awards - 25 years



Eight Fermilab employees received service awards in September for 25 years of service. Front row, from left: Robert Sanders, Ron Cypret, Jorge Hernandez, Jr. and Sylvia Wilson. Back row, from left: David Berg, John Zweibohmer, Dave McDowell and Gaston Gutierrez. Bruce Chrisman, on the right, presented the award.

Special Announcement

Special lecture on secure software system development

Hackers can find a single design flaw or security bug in computer software that exposes a computer system or network to attack.

Today CERN's Deputy Security Officer, Sebastian Lopienski, will explain how to design and develop secure software systems. Anyone interested in preventing vulnerability through secure code development is welcome to attend this technical talk at 2 p.m. in Curia II.

Lopienski has worked in computer security at CERN since 2001. He will explain basic principles and discuss security in different phases of software development. He will warn developers against common pitfalls and security bugs and give advice on best practices.

Correction

Correction

A photo caption about 10-year Service Awards in Tuesday's issue of *Fermilab Today* incorrectly identified the divisions of Giorgio Apollinari and Phil Pfund. Both are in the Technical Division. *Fermilab Today* regrets the error.

Announcements



ES&H staff organized this year's second Environmental Safety and Health fair. At the tables, staff had information about winter safety, health tips, flu prevention and environmental sustainability, along with raffles and free handouts. Here, ES&H staff talk about the Take Five campaign.



Teri Dykhuis, environmental specialist with ES&H, gives winter sport safety tips at her table. Wearing a helmet while snowboarding or skiing can cut down on head injuries, she said.



Warehouse foreman Scott Borton talks to two Fermilab employees about how Fermilab recycles electronics and scrap metal.

Latest Announcements

[Access 2007: Intermediate class - Nov. 18](#)

[Powerpoint Tips and Tricks class - Nov. 11](#)

[HTML Intro: Intro to Web Publishing class - Dec. 1](#)

[Badminton League open house - Oct. 28](#)

[Annual Enrollment ends tomorrow](#)

[Children's Halloween party tomorrow](#)

[Buttered Rum performs Saturday at Fermilab Arts Series](#)

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

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

[Overcome Your Fear of Public Speaking - Oct 29](#)

[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](#)

[Additional Activities](#)

[Submit an announcement](#)