

Calendar

[Have a safe day!](#)

Wednesday, Nov. 25
3:30 p.m.
DIRECTOR'S COFFEE BREAK - 2nd
Flr X-Over
THERE WILL BE NO FERMILAB
COLLOQUIUM THIS WEEK

Thursday, Nov. 26
HAPPY THANKSGIVING!

Friday, Nov. 27
HAPPY DAY AFTER
THANKSGIVING!

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

Campaigns

[Take Five](#)

[Tune IT Up](#)

H1N1 Flu

For information about H1N1, visit
Fermilab's flu information [site](#).

Weather

 Rain
47°/31°

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

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Feature

COUPP scientists fill water tank for bubble chamber



The water tank for the COUPP experiment, which is currently located at DZero for testing, will allow scientists to filter out background noise.

The tank is full, the hot tub pump is running and the water is close to 90 degrees Fahrenheit. Just don't jump in.

Because although scientists with [Chicagoland Observatory for Underground Particle Physics](#), or COUPP, have something to be happy about, it isn't the installation of a hot tub on the bottom floor of DZero.

COUPP scientists finished filling their experiment's water tank on Oct. 30 and installed an array of photomultiplier tubes in mid-November. The tank surrounds the newest and largest [prototype quartz bubble chamber](#), which contains 60 kilograms of a liquid called iodotrifluoromethane, or CF3I.

By keeping CF3I on the verge of boiling and shielding it from cosmic interference deep underground, COUPP scientists hope the chamber will be sensitive enough to detect dark matter interacting with the liquid.

The neutron-shielding tank will help COUPP scientists differentiate between ordinary matter, which both the bubble chamber and the water tank will detect, and dark matter, which only the more sensitive bubble chamber will detect. An array of photomultiplier tubes floating on top of the water on a foam raft will record flashes of light from ordinary matter interacting with water in the tank, said Russ Rucinski, project engineer for COUPP.



The foam raft will support photomultiplier tubes for the COUPP experiment. Scientists installed both in November.

From the Accelerator Physics Center

100
100

Don't have 100 rubles, have 100 friends

- Russian proverb

Vladimir Shiltsev, director of the Accelerator Physics Center, wrote today's column.



Vladimir Shiltsev

It is an exciting time to be a scientist at Fermilab. The list of projects and ideas that people are working on is growing every day. As usual, there is never enough money to fully fund all the wonderful science ideas that we have, but I see a good deal of enthusiasm and a "can-do" spirit that moves us ahead in many areas.

Research at Fermilab always has depended on this can-do spirit and the informal collaboration among people from different departments and divisions, and today it is more important than ever. The Accelerator Physics Center depends and thrives on this approach. Whether we are developing new beam collimation techniques, the concept for a high-intensity neutrino source, new high-temperature superconductors and fast-cycling superconducting magnets or electron cloud studies, our work always benefits from the help, knowledge, experience and institutional memory that we find throughout our laboratory.

I also encourage our scientific leaders to go directly to division and department heads and seek support to make things happen. This approach makes their work fun and rewarding. It also helps retain our best and brightest "can-doers."

When I talk to people who have been at Fermilab for a long time, I often hear about the good old times and how the can-do spirit of the early days of the laboratory has been diminished by too many reviews and too much red tape. But that is something that people have always complained about.

More than 30 years ago, our founding director, Robert Wilson, wrote, "Let's try hard to keep the good old can-do informal spirit of Fermilab alive! I ask each of you to be intolerant of creeping bureaucracy!"

Wednesday, Nov. 25

- Breakfast: English muffin sandwich
- Chicken noodle soup
- Steak sandwich
- Maple Dijon salmon
- Mongolian beef
- California club
- Assorted slices of pizza

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Nov. 25
Lunch

- Cheese fondue
- Marinated vegetable salad
- Peaches with raspberry sauce

Thursday, Nov. 26
Closed

[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](#)

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today@fnal.gov

Visit the Fermilab
[home page](#)

As the tank is at ground level and highly exposed to cosmic rays, scientists are only testing if the setup can detect ordinary matter. Cameras monitoring the transparent quartz chamber have already detected bubble events produced by rays from cosmic sources.

The filling process began on Oct. 15. After noticing minor rusting, project members drained the tank and replaced a few components with stainless steel. Filling resumed on Oct. 29 and finished about 10 hours later, while a hot tub pump heated water to an initial temperature of 86 degrees Fahrenheit.

Rucinski says tests will probably run through November. Scientists will then test the final quartz chamber, which is made of higher-grade quartz, this winter in the NuMI tunnel.

— *Chris Knight*

In the News

First neutrino events observed at T2K near detector

From *Interactions.org*, Nov. 24, 2009

Physicists from the Japanese-led multi-national T2K neutrino collaboration announced today that over the weekend they detected the first events generated by their newly built neutrino beam at the J-PARC accelerator laboratory in Tokai, Japan.

[Read more](#)

Special Announcement

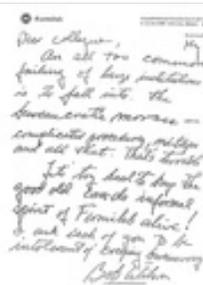
Deadline today for volunteer opportunity

The sign-up deadline for a [volunteer opportunity](#) to pack and send food to those in need is this Wednesday.

Volunteers will meet Dec. 2 from 6:30 to 8:30 p.m. at 555 Exchange Ct. in Aurora to pack food for children in need.

To sign up, call extension 3607 or e-mail dykhuis@fnal.gov.

Photo of the Day



Fermilab founding director Bob Wilson sent a handwritten note to colleagues about keeping the Fermilab spirit alive.

new things from every one of them.

We need to remain focused on reaching our research goals rather than waiting to see what the boss will order. With our strong can-do approach and the help of lots of friends, we will continue to achieve our goals and make discoveries.

Safety Update

ES&H weekly report, Nov. 24

This week's safety report, compiled by the Fermilab ES&H section, includes no injuries. We have now worked 33 days since the last recordable injury. Find the full report [here](#).

[Safety report archive](#)

In the News

Funding cuts threaten globalization of Japanese science, scientists fear

From *Interactions.org*, Nov. 24, 2009

Faced with the prospect of significant reductions in science funding by Japan's central government, leading scientists have expressed concern about the effect on the nation's nascent science globalization effort.

"Just two years ago, with great fanfare, the Japanese government announced its intention to globalize our nation's science," said Professor Hitoshi Murayama, MacAdams Professor of Physics at University of California at Berkeley and the founding director of the Institute for the Physics and Mathematics of the Universe at the University of Tokyo in Kashiwa. "Now it is reversing its policy to significantly reduce or cancel much of its globalization effort in science."

[Read more](#)

Fortunately, we are far from being bogged down in bureaucracy. The regular rotation of our scientific leadership supports our can-do culture and continues to infuse us with new ideas. In Russian and European scientific societies, where I came from, it is a common to be "born as a scientist" and work your entire productive life in the same group, often under the same boss. In contrast, in my 13-year career at Fermilab I've worked for 10 different supervisors, learning

Korean diplomats visit Fermilab, tour facilities



CDF co-spokesperson Rob Roser (left) and Fermilab Deputy Director Young-Kee Kim (right) explain how a silicon tracker works to Korean Consul General Sunghwan Son (center left) and Korean Vice Minister for Government Policy Young-June Park (center right) during their visit to Fermilab on Monday, Nov. 23. In addition to seeing the CDF experiment, the Korean delegates also visited the 15th floor of Wilson Hall, the Main Control Room and the Superconducting Radio Frequency Accelerator Test Facility at the New Muon Laboratory.



From left: Fermilab scientists Shekhar Mishra and Jerry Leibfritz and Fermilab Deputy Director Young-Kee Kim give Korean Vice Minister for Government Policy Young-June Park and Director General for Foreign and Security Policy Eun-Seok Kim, both from the Prime Minister's Office, a tour of the SRF Test Facility at the New Muon Laboratory.



From left: Senior researcher for University of Wisconsin Woo Hyun Chung speaks to Korean Vice Minister for Government Policy Young-June Park and Korean Consul General Sunghwan Son in Fermilab's Main Control Room on Nov. 23 during a tour of the laboratory.

Announcements

[Prescription eyewear technician location change begins today](#)

[NALWO winter tea - Dec. 1](#)

[Yoga class promotion - Dec. 1-22](#)

[Weight Watchers at Work program - Dec. 2](#)

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

[English Country Dancing - Dec. 6](#)

[Wilson Hall stocking stuffer holiday sale - Dec. 9-10](#)

[Free introductory martial arts classes - Dec. 14 and 16](#)

[Fermilab Management Practices seminar - Feb. 11](#)

[2010 entertainment discount book available online](#)

[Lederman Science Center holiday hours](#)

[Consider a car or van pool this winter](#)

[Argentine Tango at Fermilab meets Wednesday nights](#)

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

[Discount movie tickets available](#)

[Chicago Blackhawks discount tickets](#)

[Thai Village restaurant discount](#)

[Additional activities](#)

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