

## Calendar

[Have a safe day!](#)

Tuesday, Nov. 30  
2 p.m.

[Computing Techniques Seminar](#) - FCC 1

Speaker: Abhishek Dubey,  
Vanderbilt University  
Title: Model-Integrated  
Computing: Using Models  
for Formalizing  
Development of Complex  
Software Systems  
3:30 p.m.

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
THERE WILL BE NO  
ACCELERATOR PHYSICS  
AND TECHNOLOGY  
SEMINAR TODAY

Wednesday, Dec. 1  
3:30 p.m.

DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over  
4 p.m.

[Fermilab Colloquium](#) - One  
West

Speaker: Asantha Cooray,  
University of California,  
Irvine

Title: The New Era of Sub-  
Millimeter Cosmology: First  
Results from Herschel  
Space Observatory

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

[Upcoming conferences](#)

## Campaigns

[Take Five](#)

## Weather



Chance of  
rain/snow

## Feature

## Fermilab begins operation of first SRF cryomodule



More than 100 Fermilab employees contributed to the Cryomodule 1's assembly and operation. They include scientists, engineers, technicians, safety personnel and administrators. *Photo: Reidar Hahn*

*Editor's note: Watch a [video](#) of the installation of the first SRF cryomodule at Fermilab.*

At particle physics laboratories around the world, people have closely followed a much anticipated cooldown at Fermilab.

Years of effort by more than 100 staff members at Fermilab have led to the cooldown of Cryomodule 1 at the laboratory's SRF Accelerator Test Facility. At 11 a.m. on Nov. 22, liquid helium flowed through CM1, cooling it to 2 Kelvin (-271° C).

It was the 'lift-off' moment for the facility, which will conduct tests on superconducting radiofrequency cavity modules, the chief pioneering technology for future accelerators. During the next couple of years, Fermilab plans to use cryomodules such as this one to accelerate particle beams for experimentation.

"It's a big deal for the facility," said Jerry Leibfritz, test facility project leader. "Now we're finally going to begin operating, and scientists have an additional facility where they can study and test a cryomodule."

The cryomodule comprises eight 1-meter-long SRF cavities arranged end-to-end, all housed in a long tube that insulates them from the outside world. The cavities are

## Director's Corner

## Director's Corner to appear Wednesday

The Director's Corner, which normally appears on Tuesday each week, will be included in Wednesday's issue of *Fermilab Today*.

## Milestones

## Deaths

Ulrich Baur, a physics professor at the State University of New York at Buffalo who regularly collaborated with the Fermilab theory group and Fermilab experimentalists, died on Nov. 25. Baur's recent work concentrated on di-boson production at the Tevatron. A [page](#) has been set up to honor him. Memorial service information and funeral details will be posted on this page as soon as they become available. We will provide more information about Baur in *Fermilab Today* later this week.

Willy Kautz, a former Fermilab employee, died Nov. 11. Kautz retired from the laboratory as senior purchasing supervisor in 1991. He worked at the laboratory for 23 years. View his obituary [here](#).

## Special Announcement

## Physics for Everyone: 12:30 p.m. Dec. 1 in auditorium

Particle physics research has led to the development of some of today's most commonly used technology, including the MRI machine and the Web. Learn more about the benefits of particle physics at the next installment of the Physics for Everyone lecture series on Wednesday, Dec. 1. Elizabeth Clements, senior science communicator in Fermilab's Office of Communication, will give the lecture.

"How particle physics can benefit society" will take place from 12:30 – 1:30 p.m. on Wednesday, Dec. 1, in Ramsey Auditorium. There will be time for questions and

43°/20°

[Extended Forecast  
Weather at Fermilab](#)[Current Security  
Status](#)[Secon Level 3](#)[Wilson Hall Cafe](#)

Tuesday, Nov. 30

- Breakfast: Bagel sandwich
- Chicken & rice soup
- Italian sausage w/ peppers & onions
- \*Beef stroganoff
- \*Lemon chicken
- Peppered beef
- Assorted sliced pizza
- Chicken tostadas

\*carb-restricted alternative

[Wilson Hall Cafe Menu](#)[Chez Leon](#)

Wednesday, Dec. 1

Lunch

- Shepherd's pie
- Field greens w/ cranberries & walnuts
- Cocoa cappuccino mousse w/ cookies

Thursday, Dec. 2

Dinner

- Family-style seating buffet
- Roast suckling pig
- Oven roasted turkey
- Baked sweet potatoes
- Sage & onion stuffing
- Mashed potatoes
- Medley of vegetables
- Assortment of desserts

[Chez Leon Menu](#)

Call x3524 to make your reservation.

[Archives](#)[Fermilab Today](#)[Director's Corner](#)[Result of the Week](#)[Safety Tip of the Week](#)

crucial to the next generation of particle accelerators, and particularly important to proposed experiments such as Project X and the International Linear Collider.

CM1 is the only eight-cavity SRF cryomodule in the United States and one of only a few in the world. The laboratory is working closely with U.S. industry and international laboratories to advance the SRF technology. Now that CM1 is cold, Fermilab has entered the arena as a serious player for SRF accelerators.

"We hope to play a major role in whatever future accelerator is built, whether it's here or not," Leibfritz said. "Of course, we hope it will be at Fermilab."

The path to the CM1 launch began in 2007 when scientists and engineers began assembling the cryomodule from a kit that came from DESY. They installed the completed device at the test facility, housed in the New Muon Lab.

[Read more](#)

Cryomodule 1 is the only eight-cavity SRF cryomodule in the United States. It was successfully cooled to 2 Kelvin (-271° C) on Nov. 22. *Photo: Reidar Hahn*

[Readers Write](#)Dear *Fermilab Today*,

I enjoyed your [article](#) on the RFQ replacement of the Cockcroft Walton accelerator at Fermilab. However, I would like to further illuminate the statement "Brookhaven worked out the kinks in the new system, and Fermilab saved time and money by getting the upgraded version."

We have been very pleased with the operational reliability of the BNL RFQ. It has worked very well since day one. In fact, the downtime attributed to the RFQ has been negligible (less than 10 hours) since it was commissioned.

Derek Lowenstein  
Brookhaven National Laboratory

answers. The lecture is part of a non-technical series about Fermilab science and culture. Members of the public are welcome.

[Photo of the Day](#)[New Employees - Nov. 1](#)

From left: T.J. Sarlina, Pierpaolo Stabile, Michael Campbell, John Pollock. *Photo: Cindy Arnold*

[Accelerator Update](#)

Nov. 24-29

- Eight stores provided ~93.5 hours of luminosity
- Pbar accessed to repair PLC
- Low TeV luminosities improved by tune and angle adjustments
- TeV quenched during shot setup
- TeV kicker tripped off due to low insulating gas

[Read the Current Accelerator Update](#)[Read the Early Bird Report](#)[View the Tevatron Luminosity Charts](#)[Announcements](#)[Latest Announcements](#)[Fermilab Arts Series presents "A Celtic Christmas"](#)[Fermilab Art Gallery - Artist reception Dec. 10, painting demo Dec. 15](#)[Toastmasters - Dec. 2](#)[Winter holiday party special - Dec. 10](#)[Winter holiday tea - Dec. 3](#)[Submit a topic suggestion for Disability Awareness seminar](#)[Wilson Hall super science stocking stuffer sale - Dec. 8-9](#)

[CMS Result of the Month](#)

[User University Profiles](#)

[ILC NewsLine](#)

## Info

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Send comments and suggestions to: [today@fnal.gov](mailto:today@fnal.gov)

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Dear Derek,

Thank you for your note. We really appreciate your clarification and we apologize for any unintended implication of RFQ unreliability at Brookhaven.

We're thrilled to be getting such a reliable machine.

Best wishes,  
Rhianna Wisniewski, *Fermilab Today* editor

## In the News

### LHC experiments bring new insight into primordial universe

From *InterActions.org*, Nov. 26, 2010

After less than three weeks of heavy-ion running, the three experiments studying lead ion collisions at the LHC have already brought new insight into matter as it would have existed in the very first instants of the Universe's life. The ALICE experiment, which is optimised for the study of heavy ions, published two papers just a few days after the start of lead-ion running. Now, the first direct observation of a phenomenon known as jet quenching has been made by both the ATLAS and CMS collaborations. This result is reported in a paper from the ATLAS collaboration accepted for publication yesterday in the scientific journal *Physical Review Letters*. A CMS paper will follow shortly, and results from all of the experiments will be presented at a seminar on Thursday 2 December at CERN. Data taking with ions continues to 6 December.

[Read more](#)

[Free martial arts class - Dec. 15](#)

[PayFlex PowerPoint presentation](#)

[Fermilab Today holiday schedule](#)

[Fermilab Arts and Lecture Series box office winter schedule](#)

[Users Office holiday hours](#)

[Tango at Fermilab through Dec. 1](#)

[Pedestrian safety awareness for families](#)

[Pedestrian safety at crosswalks](#)

[Accelerate to a Healthy Lifestyle program through Dec. 31](#)

[Submit an announcement](#)