

Calendar

Friday, Nov. 21
8:30 a.m. - 5:30 p.m.

[Project X Collaboration Meeting](#)

3:30 p.m.

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

4 p.m.

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

Speaker: Katsuki Hiraide,
 Kyoto University

Title: Search for Charged
 Current Coherent Pion
 Production by Neutrinos at
 SciBooNE

8 p.m.

[Fermilab International Film
 Society](#) - Ramsey Auditorium

Title: [Cinema Paradiso](#)

Tickets: \$5 for adults

Saturday, Nov. 22

8:30 a.m. - 12 p.m.

[Project X Collaboration Meeting](#)

8 p.m.

[Fermilab Arts Series](#) - Ramsey
 Auditorium

[Klezmatic](#): Grammy Award

Winning World Music

Tickets: \$25/\$13

Monday, Nov. 24

2:30 p.m.

[Particle Astrophysics Seminar](#)

- Curia II

Speaker: Bob McElrath, CERN

Title: Emergent Electroweak

Gravity

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

All Experimenters' Meeting -

Curia II

Special Topic: SciBooNE

Decommissioning Update

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

Weather

From the Directorate

Snow day policy

Bruce Chrisman, Fermilab's chief operating officer, wrote this column.

Winter weather has arrived. Soon we will experience heavy snow and other inclement winter weather conditions. In order to eliminate confusion that ad hoc policies in the past have caused, Fermilab has created an official Inclement Weather and Snow Policy. The policy, which applies to all employees, will help them make appropriate decisions and explains the leave and pay policy during heavy snow and other inclement weather. Here are the most important aspects of the [policy](#):



Bruce Chrisman

In times of severe weather or dangerous conditions, Fermilab may announce that the laboratory is closed. Staff will post these announcements on the Fermilab homepage and notify the media. If the laboratory does announce closure prior to normal work hours, employees will be paid for the day.

If there is inclement weather, but the laboratory does not close, an employee may choose not to go to work. Employees who choose not to attend work must notify their supervisors. The day will be counted as vacation time or leave without pay. This option allows employees to use their discretion in regard to their safety and their family needs without being penalized during heavy snow or dangerous conditions.

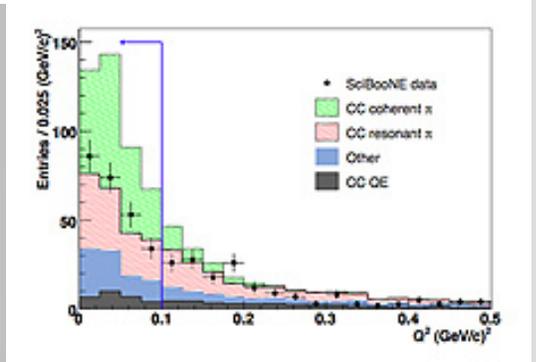
If the laboratory is open and employees choose to go to work in inclement weather, employees arriving up to three hours late will be paid for the full day, subject to supervisory approval.

There are exceptions to the policy for essential personnel. Read the complete Inclement Weather and Snow [Policy](#) for details.

In Brief

Special Result of the Week

SciBooNE's search for coherence in neutrino interactions



The plot shows momentum transferred from muon neutrinos to the target nuclei in the SciBooNE detector. The black points show the SciBooNE data, and the colored histograms show the expected signal and backgrounds. In the signal region, below 0.1 (GeV/c)^2 , the data are consistent with the backgrounds and indicate no observed signal. The error bars shown indicate the statistical uncertainty of the data.

Although neutrinos rarely interact, they have a surprisingly high number of interaction modes. Most of the time when a neutrino meets a nucleus it just keeps going. This makes detecting neutrinos difficult. But neutrinos can interact with other particles, such as with a quark inside a proton or neutron, with a whole proton or neutron, or with the entire nucleus. Interactions between a neutrino and a nucleus are called a coherent process because all the constituent parts of the nucleus act together, or coherently. Scientists in the SciBooNE collaboration have recently completed a search for coherent neutrino interactions at Fermilab.

The interaction mode that the experiment looked for is called the charged current coherent pion production process. It acts as a tricky background for neutrino oscillation searches. This mode is mediated by the exchange of a charged W boson that changes the neutrino into its charged lepton partner, in this case a muon. In addition, the neutrino and nucleus produce a charged pion. Because the process is coherent the neutrino does not transfer much of its momentum to the nucleus, otherwise the nucleus would break up and the coherence would be lost.

 Sunny
31°/15°

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

[Current Security Status](#)

[Secon Level 3](#)

[Wilson Hall Cafe](#)

Friday, Nov. 21

- Italian vegetable soup
- Teriyaki chicken
- Southern fried chicken
- Mediterranean baked tilapia
- Eggplant parmesan panini
- Assorted sliced pizza
- Assorted sub sandwich

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

**Wednesdsay, Nov. 26
Lunch**

- Cheese fondue
- Marinated vegetable salad
- Mixed berry parfait

**Thursday, Nov. 27
Dinner**

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

[Info](#)

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

Send comments and suggestions to:
today@fnal.gov

Organize carpool with free PACE Rideshare program

Looking for co-workers to start a carpool? The suburban transit provider PACE is offering a free, anonymous, Web-based program to look for carpool partners. Just register at the [PACE Rideshare Web site](#) and enter the start point of your daily commute. Then choose Fermilab from the list of employers for your destination, and select Fermilab again for the street address and to show its location on a map. The Web program will then allow you to contact carpool partners without revealing personal information.

If you are looking for carpool partners from the West Chicago or Route 59 Metra train stations, enter the address of the train station as the start of your commute in the Rideshare program. You can look up the train station addresses [here](#).

For groups of five or more, PACE offers vanpool programs, both for commuting from home, with the regular [PACE vanpool program](#), and from Metra train stations, with the [PACE Metra Feeder program](#). To find enough people to start a vanpool, please use the PACE Rideshare Web program, too.

-- Kurt Riesselmann

In the News

High energy physics advisory panel briefing on budget outlook

From *AIP FYI*, Nov. 20, 2008

"It has been an 'interesting' year for DOE HEP program" stated one of the exhibits that Dennis Kovar, Associate Director of Science for High Energy Physics showed to the High Energy Physics Advisory Panel at its November 13 meeting. Kovar presented a broad overview of DOE's High Energy Physics Program, with many of his remarks focusing on the funding outlook. Joseph Dehmer, Director of the National Science Foundation's Division of Physics, also addressed the advisory panel, updating them on several NSF projects.

Despite an initial promising outlook, last year's FY 2008 budget for the DOE High Energy Physics Program dropped by 8.5 percent or \$63.5 million from the previous year, from \$751.8 million to \$688.3 million. The Administration requested \$782.3 million. No

To find such events, the SciBooNE analyzers searched for a muon and pion coming from a single neutrino interaction vertex inside the detector and nothing else. After collecting data from the full run of 0.99×10^{20} protons on the Fermilab Booster Neutrino Beamline target, SciBooNE analyzers found no evidence for the coherent pion production process above the expected backgrounds. The result confirms a similar result seen by the Japanese K2K experiment in 2005.

This process has been observed at higher neutrino energies, and a related neutral current process (which proceeds through the exchange of a neutral Z boson) was observed by the MiniBooNE experiment at Fermilab in 2007. This result will be used as physics input for the T2K experiment's precise studies of neutrino oscillation, which to date remain the only confirmed observation of physics not allowed by the Standard Model. SciBooNE analyzers will next search for the coherent pion process in their already collected antineutrino data.



Katsuki Hiraide, University of Kyoto, performed the search for coherent pion production with muon neutrinos in SciBooNE.

Special Announcement

Project X collaboration meeting today

The initial collaboration meeting for Project X will take place at Fermilab today, Nov. 21, and Saturday, Nov. 22. The purpose of the meeting is to formally establish research, development and design plans, as well as institutional participation and responsibility. View the meeting schedule and room assignments [here](#).

Announcements

money was provided for the NOvA program at the Tevatron, and only \$15.0 million of the original \$60.0 million request was allocated for International Linear Collider R&D. Despite receiving \$94 million less than requested, Kovar informed the advisory panel that "most serious impacts were mitigated," and that given the context, the program had a "productive year." Additional money provided to the program through a later supplemental funding bill had been "absolutely crucial."

In February, the Administration requested \$805.0 million for the High Energy Physics program for FY 2009, an amount that Under Secretary for Science Ray Orbach then said "gets us back on track." House and Senate appropriators approved this funding in their initial versions of the FY 2009 Energy and Water Development Appropriations bill. The final version of the bill has not yet been passed.

At present, the Tevatron is expected to run for the first six months of FY 2009 under the continuing resolution. The Large Hadron Collider project will be supported, although there will be no growth. Some projects will be delayed, including APAF, although DOE will proceed with the Joint Dark Energy Mission (a future FYI will provide a JDEM update.)

[Read more](#)

[Have a safe day!](#)

[Annual Enrollment Nov. 17 - Dec. 10](#)

[Fermilab Health and Wellness Fair prizes](#)

[Annual enrollment carrier meetings Nov. 21, Dec. 4, 9](#)

[Fermilab Arts Series presents Klezmatiks Nov. 22](#)

[English Country Dancing, Nov. 23](#)

[Director's volunteer award Nov. 25](#)

[Exciting Explorations! child care program Nov. 24-26](#)

[No International Folk Dancing on Thanksgiving, resumes Dec. 4](#)

[Fidelity representative at Fermilab Dec. 3](#)

[Education Office Holiday Sale, Dec. 3 & 4](#)

[International Folk Dancing, Dec. 4](#)

[NALWO - Winter Holiday Tea, Dec. 5](#)

[FileMaker Pro 8.0 - Dec. 10](#)

[NALWO - Christkindlmarket Chicago, Dec. 13](#)

[The University of Chicago Tuition Remission Program deadline Dec. 17](#)

[Additional activities](#)

[Submit an announcement](#)

Classifieds

Find new [classified ads](#) on *Fermilab Today*.