

Calendar

Friday, March 13

3:00 p.m.
DIRECTOR'S COFFEE
BREAK (NOTE TIME) - 2nd Flr
X-Over

3:30 p.m.
[Joint Experimental-Theoretical
Physics Seminar](#) (NOTE TIME)

- One West
Speakers: Sergo Jindariani
and Marco Verzocchi, Fermilab
Title: Higgs Results from CDF
and D0

8:00 p.m.
[Fermilab International Film
Society](#) - Auditorium

Tickets: Adults \$5
Title: Duma

Saturday, March 14
8:00 P.M.

[Fermilab Arts Series](#) -
Auditorium
Tickets: \$25/\$13
Performer: Solas

Monday, March 16
2:30 p.m.

[Particle Astrophysics Seminar](#)
- Curia II
Speaker: Chris Burns,
Carnegie Observatories
Title: The Carnegie Supernova
Project: First Results of the
Low- and High-Redshift
Campaigns

3:30 p.m.
DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over
4:00 p.m.
All Experimenters' Meeting -
Curia II

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

Weather

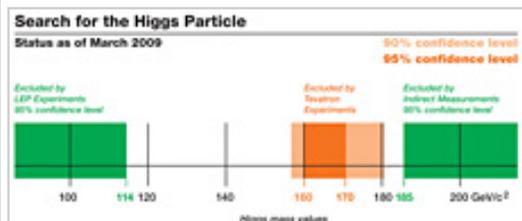
 **Mostly sunny**
37°/16°

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

Fermilab Press Release

Fermilab experiments constrain Higgs mass

CDF, DZero experiments exclude significant fraction of Higgs territory



[Click image for larger version.](#)

Batavia, Ill.—The territory where the Higgs boson may be found continues to shrink. The latest analysis of data from the CDF and DZero collider experiments at the U.S. Department of Energy's Fermilab now excludes a significant fraction of the allowed Higgs mass range established by earlier measurements. Those experiments predict that the Higgs particle should have a mass between 114 and 185 GeV/c². Now the CDF and DZero results carve out a section in the middle of this range and establish that it cannot have a mass in between 160 and 170 GeV/c².

"The outstanding performance of the Tevatron and CDF and DZero together have produced this important result," said Dennis Kovar, Associate Director of the Office of Science for High Energy Physics at the U.S. Department of Energy. "We're looking forward to further Tevatron constraints on the Higgs mass."

The Higgs particle is a keystone in the theoretical framework known as the Standard Model of particles and their interactions. According to the Standard Model, the Higgs boson explains why some elementary particles have mass and others do not.

So far, the Higgs particle has eluded direct detection. Searches at the Large Electron Positron collider at the European laboratory CERN established that the Higgs boson must weigh more than 114 GeV/c². Calculations of quantum effects involving the Higgs boson require its mass to be less than 185 GeV/c².

[Read more](#)

Videos of the Day

Today, Fermilab introduces videos in a press release. Learn more about two of the physicists behind Fermilab's latest result, announcing new constraints on the Higgs mass.



[Watch YouTube video](#)

Listen to CDF graduate student Barbara Alvarez-Gonzalez, University of Oviedo, as she explains in this 2-minute video the search for the Higgs particle with the CDF detector. Alvarez-Gonzalez is one of about 600 physicists from 63 institutions in 15 countries who work on the CDF experiment at Fermilab.



[Watch YouTube video](#)

Listen to DZero physicist Michael Kirby, Northwestern University, as he explains in this 2-minute video how DZero collects and analyses collision data to find signs of the Higgs particle. Kirby is one of about 550 physicists from 90 institutions in 18 countries who work on the DZero experiment at Fermilab.

In the News

Current Security Status

[Click here](#) for graphics, photos and videos.

Photo of the Day



Members of the CDF and DZero collaborations gathered at the User's Center Tuesday for food and music to celebrate the discovery of single top quark production at the Tevatron. *Photo: Gavin Hesketh.*

Feature

Irish Celtic music comes to Fermilab



A beloved Irish band returns to Fermilab on Saturday.

The renowned group Solas debuted at Fermilab seven years ago to a "sold-out, very happy audience," said Janet MacKay-Galbraith, performing arts program manager for the Fermilab Arts and Lecture Series.

She expects another sold-out performance when the group returns to Fermilab March 14, and recommends people purchase tickets in advance. Tickets for the 8 p.m. performance in Ramsey Auditorium can be purchased at the Fermilab Box Office, which is open from 9 a.m. to 4 p.m. Or call (630) 840-2787. Tickets cost \$25 for adults, and \$13 for ages 18 and younger.

Solas, which means "light" in Gaelic, formed

Single Top Quark Detected

From *Science News*, March 10, 2009

Physicists have identified the production of the elusive single top quark, two research teams report.

Previously top quarks have been observed only when produced in pairs, as when they were initially discovered 14 years ago at the Fermi National Accelerator Laboratory in Batavia, Ill. Now, researchers using Fermilab's two detectors announced March 9 that they have detected single top quarks. The techniques used to find the singleton quarks could help to identify other rare particles, such as the Higgs boson, the scientists say.

"What a discovery," comments Nobel laureate David Gross of the Kavli Institute for Theoretical Physics at the University of California, Santa Barbara. "These researchers should be congratulated."

[Read more](#)

Announcements

Latest Announcements

[Dandia/Garba dance evening on March 28](#)

[WDRS researches Transit Benefit Program](#)

[Coed softball season begins May 13](#)

[Harlem Globetrotter employee discount](#)

[Have a safe day!](#)

[Free Step Aerobics class in March](#)

[Discount tickets to "1964"...Beatles Tribute - June 6](#)

[Discount tickets to "Dora the Explorer Live"- March 26-29](#)

[Blackberry Oaks Golf League](#)

[Sustainable Energy Club](#)

[New electronic org chart](#)

[Muscle Toning classes](#)

[Kyuki Do classes March 30](#)

[Fermilab Arts Series presents Solas March](#)

Secon Level 3

Wilson Hall Cafe

Friday, March 13

- Smart Cuisine: Chunky vegetable soup w/orzo
- Buffalo chicken wings
- Cajun breaded catfish
- Smart Cuisine: Mexican stuffed peppers
- Honey mustard ham & swiss panini
- Assorted sliced pizza
- Smart Cuisine: *Carved turkey

**Carb restricted alternative*

Wilson Hall Cafe Menu

Chez Leon

Wednesday, March 18 Lunch

- Asian marinated salmon with rice noodles
- Gingered pear crisp

Thursday, March 19 Dinner

- Tortilla soup
- Roasted lamb chops with charmoula sauce
- Skillet asparagus
- Roasted garlic potatoes
- Profiteroles

Chez Leon Menu

Call x3524 to make your reservation.

Archives

Fermilab Today

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

in New York City and gained wide-spread recognition after performing on Garrison Keillor's "A Prairie Home Companion" in 1996. *The Boston Herald* called the quartet "the first truly great Irish band to arise from America."

The group includes five members, who play the accordion, guitar, banjo and bouzouki, or lute. Their music is rooted in Irish jigs and other folk song forms.

Find information on Solas here, <http://www.solasmusic.com/>

[14](#)

[Barn Dance March 15](#)

[Altium Designer Lunch and Learn Seminar March 17](#)

[Excel 2007 Pivot Tables class March 18](#)

[PowerPoint 2007: Intro class March 19](#)

[Bulgarian Dance Workshop March 19](#)

[URA visiting Scholars applications due March 20](#)

[NALWO Adler Planetarium Trip March 21](#)

[Child Care program March 24](#)

[Publisher 2007: Intro class April 1](#)

[Conflict Management & Negotiation Skills class April 1](#)

[English Country Dancing April 5](#)

[Outlook 2007 New Features class April 8](#)

[SciTech Summer Camps](#)

[Phillips Park Golf League](#)

[Additional Activities](#)

[Submit an announcement](#)