

Calendar

[Have a safe day!](#)

Monday, July 26

2:30 p.m.

[Particle Astrophysics Seminar](#)

(NOTE LOCATION) - One West

Speaker: Bernard Carr, Queen Mary University of London
 Title: Primordial Black Holes as a Probe of Dark Matter, Dark Energy and Dark Dimensions
 3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ALL EXPERIMENTERS' MEETING THIS WEEK

4 p.m.

[Special Joint Experimental-Theoretical Physics Seminar](#)

(NOTE DATE) - One West

Speaker: Wade Fisher, Michigan State University
 Title: Results of the Tevatron Higgs Combination

Tuesday, July 27

12 p.m.

[Summer Lecture Series](#) - One West

Speaker: Debbie Harris, Fermilab

Title: Neutrino Physics

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

[Accelerator Physics and Technology Seminar](#) - One West

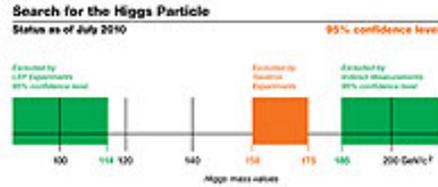
Speaker: Alexey Burov, Fermilab
 Title: Three Views on Landau Damping

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

[Upcoming conferences](#)

Fermilab Press Release

Fermilab experiments narrow allowed mass range for Higgs boson



Scientists from the CDF and DZero collaborations at DOE's Fermilab have combined Tevatron data from their two experiments to increase the sensitivity for their search for the Higgs boson. While no Higgs boson has been found yet, the results announced today exclude a mass for the Higgs between 158 and 175 GeV/c².

New constraints on the elusive Higgs particle are more stringent than ever before. Scientists of the CDF and DZero collider experiments at the U.S. Department of Energy's Fermilab revealed their latest Higgs search results today (July 26) at the International Conference on High Energy Physics, held in Paris from July 22-28. Their results rule out a significant fraction of the allowed mass range established by earlier experiments.

The Fermilab experiments now exclude a Higgs particle with a mass between 158 and 175 GeV/c². Searches by previous experiments and constraints due to the Standard Model of Particles and Forces indicate that the Higgs particle should have a mass between 114 and 185 GeV/c². For comparison: 100 GeV/c² is equivalent to 107 times the mass of a proton.) The new Fermilab result rules out about a quarter of the expected Higgs mass range.

"Fermilab has pushed the productivity of the Tevatron collider to new heights," said Dennis Kovar, DOE Associate Director of Science for High Energy Physics. "Thanks to the extraordinary performance of Fermilab's Tevatron collider, CDF and DZero collaborators from around the world are producing exciting results and are making immense progress on the search for the Higgs particle."

At the ICHEP conference, CDF and DZero

ES&H Tips of the Week - Safety

Choosing proper work footwear



Flip-flop shoes such as those in the photo above are not safe work attire. They offer little or no protection, minimal cushioning and no arch support. In addition, walking in these types of shoes requires an unnatural toe-gripping gait.

Fermilab's Medical Department has seen a large number of injuries associated with footwear choices during summer months. These injuries involved individuals wearing shoes that provide little protection or support, are hard to walk in or are ill-fitting.

Here are some guidelines from the American Podiatric Medical Association to help prevent shoe-related injuries:

- Choose footwear that provides protection from anticipated occupational hazards, such as falling or sharp objects.
- Wear shoes with a low heel to reduce leg and back strain and to prevent slips, trips and falls.
- High-heeled shoes shorten calf muscles, contribute to knee and back problems and increase the risk of falling. If you wear heels, choose styles with squared-off toes and shorter, chunkier heels.
- Choose shoes that fit well. Shoes that do not fit correctly can cause blisters and contribute to injuries.
- Avoid wearing the same pair of shoes for multiple days in a row. Alternating pairs of shoes protects your feet from repetitive stress and allows shoes to dry between wearing.
- Discard shoes that are worn out or have thin soles. Worn out shoes require more energy to walk. These shoes have a greater impact on your feet and reduce the stability of your lower legs. Worn-out shoes also have little shock absorption quality.

Campaigns

[Take Five](#)

[Tune IT Up](#)

H1N1 Flu

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

Weather

 Sunny
84°/66°

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

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Monday, July 27

- Breakfast: Croissant sandwich
- Italian minestrone soup
- Patty melt
- Baked chicken enchiladas
- Herb pot roast
- Chicken melt
- Assorted sliced pizza
- Szechuan green bean w/ chicken

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, July 28

- Lunch
- Beef kabobs
 - Rice pilaf
 - Blackberry parfait

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

scientists are giving more than 40 talks on searches for exotic particles and dark matter candidates, discoveries of new decay channels of known particles and precision measurements of numerous particle properties. Together, the two collaborations present about 150 results.

The Higgs particle is the last not-yet-observed piece of the theoretical framework known as the Standard Model of Particles and Forces. According to the Standard Model, the Higgs boson explains why some particles have mass and others do not.

"We are close to completely ruling out a Higgs boson with a large mass," said DZero co-spokesperson Dmitri Denisov, one of 500 scientists from 19 countries working on the DZero experiment. "Three years ago, we would not have thought that this would be possible. With more data coming in, our experiments are beginning to be sensitive to a low-mass Higgs boson."

Robert Roser, co-spokesperson for the 550 physicists from 13 countries of the CDF collaboration, also credited the great work of the CDF and DZero analysis groups for the stringent Higgs exclusion results.

[Read more](#)

Photo of the Day

Sustainable Energy Club brings Tesla Roadster to lab



Sustainable Energy Club President Brian Chase speaks to a group of people gathered in the Users' Center parking lot on Tuesday, July 20, to see the Tesla Roadster. The Sustainable Energy Club members asked representatives from Tesla to bring the electric vehicle to the laboratory and talk about electric vehicle technology.

In the News

If you need protective safety footwear for work, talk to your supervisor. Fermilab does have a protective footwear program. The [form](#) used to order protective footwear is located on the ES&H website.

-- John Dawson, ES&H

[Safety Tip of the Week Archive](#)

Video of the Day

Wilson Hall, Fermilab featured in Star Wars fan movie



Accelerator Division employee Darren Crawford has worked since 2006 to create "Star Wars: The Forgotten Realm," a Star Wars fan film that features Wilson Hall and other areas of the laboratory and some laboratory employees. Watch the movie trailer [here](#).

Special Announcement

Paving resumes on A1 today

Paving on A1, from B Road to the Training Center was delayed last week due to rain and mechanical problems. Crews will resume paving the area today. Paving might result in traffic delays.

Announcements

Latest Announcements

[Bristol Renaissance Faire discount](#)

[Aug. 20 deadline for The University of Chicago Tuition Remission Program](#)

[2010 Summer Intern group photo - July 27](#)

[Applications for URA Visiting Scholars Awards due Aug. 20](#)

[Martial arts classes begins Aug. 9](#)

[Take 5 Challenge Quiz](#)

[Fermilab Today](#)[Result of the Week](#)[Safety Tip of the Week](#)[CMS Result of the Month](#)[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](#)[Unsubscribe](#) from *Fermilab**Today***Senate Appropriations
Committee report language
details DOE funding bill**From **FYI: The AIP Bulletin of Science
Policy News**, July 23, 2010

Yesterday the full Senate Appropriations Committee approved the FY 2011 Energy and Water Development Appropriations bill. Accompanying S. 3635 is a report providing specific program recommendations. Below are selections from this report language. While the counterpart House subcommittee has approved its FY 2011 funding bill its report will not be released until the measure is considered by the full House Appropriations Committee. Senate Report 111-228, is available at this web site.

Office of Science:

FY 2010 appropriation: \$4,903.8 million

FY 2011 Administration request: \$5,121.4 million

House subcommittee recommendation:

\$4,900 million, a decline of \$4 million or 0.1 percent below this year.

Senate subcommittee recommendation:

\$5,012.0 million, an increase of \$108.2 million or 2.2 percent above this year.

[Read more](#)[Argentine Tango, Wednesday, July 28](#)[Benefit News](#)[Safari Online access to O'Reilly content available for purchase](#)[Club & League Fair - Aug. 11](#)[Day Camp payments due today](#)[Regal Movie Theater discount tickets available](#)[NIM and Physics Reports now completely online at Fermilab](#)[Toastmasters - Aug. 5](#)[Grounding and Shielding of Electronic Systems course - Aug. 12 and 13](#)[Free Piano Concert featuring Sandor Feher, Ramsey Auditorium at noon on Aug. 12](#)[Claudia Schmidt - Singer/Songwriter - Fermilab Arts Series - Aug. 14](#)[Gizmo Guys - Fermilab Arts Series - Sept. 25](#)[Submit an announcement](#)