

Calendar

Monday, March 9
2:30 p.m.

[Particle Astrophysics Seminar](#)

- Curia II

Speaker: Nahee Park,
University of Chicago

Title: TeV Electron
Measurement in the Balloon
Experiment

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

All Experimenters' Meeting -
Curia II

Tuesday, March 10
2 p.m.

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

(NOTE DATE & TIME)- One
West

Speaker: Cecilia Gerber,
University of Illinois, Chicago

Title: Observation of Single
Top at DZero

Speaker: Rainer Wallny,
University of California, Los
Angeles

Title: Observation of Single
Top at CDF

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

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

Speaker: Hitoshi Hayano, KEK

Title: Basic R&D for High
Gradient ILC SC Cavity in KEK-
STF

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

Weather

Fermilab press release

Fermilab collider experiments discover rare single top quark

Scientists of the CDF and DZero collaborations at the Department of Energy's Fermi National Accelerator Laboratory have observed particle collisions that produce single top quarks. The discovery of the single top confirms important parameters of particle physics, including the total number of quarks, and has significance for the ongoing search for the Higgs particle at Fermilab's Tevatron, currently the world's most powerful operating particle accelerator.

Previously, top quarks had only been observed when produced by the strong nuclear force. That interaction leads to the production of pairs of top quarks. The production of single top quarks, which involves the weak nuclear force and is harder to identify experimentally, has now been observed, almost 14 years to the day of the top quark discovery in 1995.

Searching for single-top production makes finding a needle in a haystack look easy. Only one in every 20 billion proton-antiproton collisions produces a single top quark. Even worse, the signal of these rare occurrences is easily mimicked by other "background" processes that occur at much higher rates.

"Observation of the single top quark production is an important milestone for the Tevatron program," said Dr. Dennis Kovar, Associate Director of the Office of Science for High Energy Physics at the U.S. Department of Energy. "Furthermore, the highly sensitive and successful analysis is an important step in the search for the Higgs."

Discovering the single top quark production presents challenges similar to the Higgs boson search in the need to extract an extremely small signal from a very large background. Advanced analysis techniques pioneered for the single top discovery are now in use for the Higgs boson search. In addition, the single top and the Higgs signals have backgrounds in common, and the single top is itself a background for the Higgs particle.

[Read more](#)

ES&H Tips of the Week - Safety

ES&H – a five point check list for safety

Accidents at Fermilab are much like those that occur in other workplaces. Similarly, prevention boils down to dealing with a relatively small number of issues. Here are five questions to keep in mind and keep you safe as you go about your daily activities.



Five questions act as a check list for safety.

1. Can I stay focused? Lack of attentiveness is a factor common to most accidents. Be conscious of things that can affect your attentiveness level: illness, medications, a mental workload that is too low and boring or too high and stressful. Try to put off jobs until you can focus fully or break jobs into smaller segments to avoid mental fatigue.
2. Can something go wrong? Think through your work processes and break them into components. Identify what could go wrong with each step and take appropriate precautions.
3. Are these the best tools for the job? Watch out for make-shift and non-specialized cutting tools. Make sure you are using tools in accordance with the manufacturer's instructions and the laboratory's safety requirements.
4. Am I (still) able to do this? Advancing age, as well as pre-existing or incipient health conditions, can adversely impact your ability to work. Stay in touch with the Medical Department to help keep your fitness level in sync with your work requirements.
5. What if the pain doesn't go away? Promptly report to the Medical Department if your work causes discomfort. Putting up with pain for months or years could result in a permanent condition or the need for surgery. Usually, a few simple adjustments to your work processes will take care of the problem.

-- Tim Miller, ES&H associate head



Mostly sunny
49°/39°

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

[Current Security Status](#)

[Secou Level 3](#)

[Wilson Hall Cafe](#)

Monday, March 9

- Minestrone
- Patty melt
- Baked chicken enchiladas
- Herbed pot roast
- Chicken melt
- Assorted sliced pizza
- Szechwan green bean w/ chicken

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Wednesday, March 11
Lunch

- Chicken breast stuffed w/sun-dried tomatoes & goat cheese with a shallot thyme sauce
- Orzo
- Carmel apple shortcake

Thursday, March 12
Dinner

- Field greens w/ cranberries, bleu cheese and walnuts
- Citrus glazed mahi mahi
- Cashew basmati rice
- Sautéed pea pod & water chestnuts
- Lemon meringue ice cream pie in toasted pecan crust

[Chez Leon Menu](#)

Call x3524 to make your reservation.

[Archives](#)

Reminder

Reminder

Daylight-saving time began yesterday. While those of us in the Central Standard Time zone turned our clocks ahead one hour, our collaborators throughout the rest of the world may not have. France and Switzerland don't change their clocks until Sunday, March 29. So, for the next few weeks, there will only be a six hour time difference between Fermilab and CERN.

[Learn more](#) information on Daylight-saving time in other countries around the globe.

In the News

IMSA founder to be honored in D.C.

From *Geneva Sun*, March 6, 2009

Nobel Laureate Leon Lederman, a one-time director of Fermilab in Batavia, will receive a national award today honoring his long-lasting impact in the science.

Lederman, a high energy physicist and one of the founders of the Illinois Math and Science Academy in Aurora, will receive the 2009 National Space Grant Distinguished Service Award in Washington, D.C.

Lederman is only the sixth person to receive the award, which aims to expand opportunities for Americans to participate in NASA's projects by creating and supporting programs in science, engineering, research and public outreach.

[Read more](#)

In the News

The latest from the LHC

From *symmetrybreaking*, March 6, 2009

This week at the LHC, the [third sector](#) to be warmed up due to a suspected [faulty magnet splice](#) is now at room temperature, and removal of the magnet in question is underway. A prototype for a new anchoring system for another type of LHC magnet is now being tested in the tunnel. If successful, the system would prevent collateral damage to magnets were another large helium leak to occur.

Accelerator Update

March 4-6

- Two stores provided ~34.75 hours of luminosity
- TeV recovers from Tuesday night quench
- TeV sector A2 LCW leak repaired
- Linac quadrupole power supply problems
- Booster RF sparking problems resolved
- TeV quenches twice during Friday midnight shift

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

[Have a safe day!](#)

[Housing summer 2009 deadline March 9](#)

[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](#)

[Phillips Park Golf League](#)

[New electronic org chart](#)

[Muscle Toning classes](#)

[Kyuki Do classes - March 30](#)

[Barnstromers Delta Dart night March 11](#)

[Fermilab Arts Series presents Solas - March 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](#)

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

CERN also reports that its Enhanced Quench Protection system for the LHC was favorably reviewed last week by a panel of outside experts. The system, to be installed before the [LHC restart](#) later this year, will identify and protect against the type of problem that led to last September's incident.

Technical details from the CERN Bulletin. [Read more](#)

Info

Fermilab Today

is online at:

www.fnal.gov/today/

Send comments and suggestions to:

today@fnal.gov

[Bulgarian Dance Workshop, March 19](#)

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

[NALWO Adler Planetarium trip March 21](#)

[Child Care program offered March 24](#)

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

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

[English Country Dancing, Apr. 5](#)

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

[SciTech summer camps](#)

[Additional Activities](#)

[Submit an announcement](#)