

Calendar

Tue., June 26

12:00 a.m.

[Summer Lecture Series](#) - One West

Speaker: S. Dodelson, Fermilab

Title: Astrophysics

3:30 p.m.

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

Wed., June 27

1:00 p.m.

Fermilab ILC R&D Meeting - One West

To Be Announced

3:30 p.m.

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

4:00 p.m.

Fermilab Colloquium - One West

Speaker: P. Singh, Bhabha Atomic Research Centre, India
Title: Accelerator Development in India for ADS Programme

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

Weather

 **Chance of thunderstorms 90°/70°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Press Release

Back-to-Back b Baryons



Using the Tevatron collider, DZero found 19 cascade b baryons, while the CDF experiment had 17.

Scientists at Fermilab have announced the observation of the cascade b baryon—again.

In a paper submitted for publication to Physical Review Letters on June 12, scientists of Fermilab's DZero experiment announced their discovery of the "triple scoop" baryon, which contains one quark from each generation of matter.

Then, on June 15, scientists from Fermilab's CDF experiment announced their own independent cascade b observation.

[Read the press release](#)

Feature

ATLAS Toroid lowered into cavern at CERN



The first Toroid End Cap magnet just before it was placed in the ATLAS cavern. (Click on image for larger version.)

What do you get when you cross a 260-ton magnet with an experienced and talented

Director's Corner

Triplet Test

Last Friday a repaired Fermilab triplet magnet underwent a simulated pressure test at CERN, using a hydraulic "push" to verify the strength of the modified support system. It passed with flying colors, being completely elastic to an axial force of 15 tons. The



[Pier Oddone](#)

next step will be to install the triplet repairs in all sectors and be ready for the cool-down of LHC sector 8-1 that will take place in August. Not until a triplet magnet has been cooled and fully powered will we be able to declare success. Of course there won't be real success for any of us until the full LHC is up and running. It is a formidable task that our colleagues at CERN are carrying out with energy and determination. So far, even without the triplets, no sector has been cooled down and fully powered, pointing out the stunning amount of commissioning work yet to be completed before the LHC can begin operations.

The analysis of the triplet failure, the design of a solution to the support problem that could be installed *in situ*, the fabrication of the parts and the repair of the first magnet have been done in close collaboration with CERN. Everyone in the Fermilab and CERN teams rolled up their sleeves and worked closely together to solve the problem. We also received assistance from other US laboratories. It has been a great lesson in teamwork.

Other lessons for us will come out of the root-cause analysis now underway that will help us prevent similar occurrences in the future. In the long run, this experience with the triplet problem and repair will strengthen Fermilab. Now we are a collaborator delivering components, but this experience will also provide lessons for future international projects in which we will be the host, and must deliver on the responsibility of being a system integrator for components provided by our partners.

It should be a very exciting year as all sectors

Tuesday, June 26

- Golden broccoli & cheese
- Cheesy greek squeeze
- Coconut crusted tilapia
- Spaghetti w/meatballs
- *Toasted almond chicken salad on croissant
- Assorted pizza slices
- Chicken fajitas

*Carb Restricted Alternative

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, June 27 Lunch

- Antipasto salad
- Cassata

Thursday, June 28

Dinner

- Gazpacho
- Seafood paella
- Orange caramel flan

[Chez Leon Menu](#)

Call x4598 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

assembly team at CERN? The successful installation of the first Toroid End Cap magnet for the ATLAS detector, which was completed early last week.

This 12-meter tall component complements the barrel toroid magnet, one of the largest magnets ever built. The size is necessary to produce magnetic fields tens of meters across within the ATLAS detector. Such fields are critical in measuring muons, the longest lasting of the unstable elementary particles.

In addition to being very large, the toroid end-cap magnets are also very delicate, containing eight super conducting magnetic coils.

"It was one of the most difficult objects we have had to lower into the cavern," said ATLAS project engineer Mark Hatch.

Using the 280-ton overhead crane---not the most agile of machines---the team at CERN carefully lowered the End Cap 240 feet into the ATLAS cavern. They then fit it into place within the Barrel Toroid, the main piece of magnetic hardware, without damaging any of the experiments many sensitive components.

Teams from SLAC have been involved with the ATLAS experiment for the past 11 months. Projects include work on the pixel detector, the trigger, and the commissioning of studies. (Click [here](#) to read a related *SLAC Today* story.)

-- Ken Kingery, SLAC

In the News

From *New York Times Sunday Book Review*, June 24, 2007

Meta Physicists

As though their knowledge of the quantum secrets came with the power of prophecy, some three dozen of Europe's best physicists ended their 1932 meeting in Copenhagen with a parody of Goethe's "Faust." Just weeks earlier, James Chadwick had discovered neutrons — the bullets of nuclear fission — and before long Enrico Fermi was shooting them at uranium atoms. By the time of the first nuclear explosion a little more than a decade later in New Mexico, the idea of physics as a Faustian bargain was to its makers already a cliché. Robert Oppenheimer, looking for a sound bite, quoted Vishnu instead: "Now I am become Death, the destroyer of worlds."

[Read more](#)

of the machine come alive and we come closer to realizing the dreams of the physics to come. We will continue to give the highest priority in the laboratory to the completion of the repairs of the triplets and then to assisting CERN as much as possible in the overall commissioning of the LHC.

Accelerator Update

June 22 - 25

- Three stores provided 53 hours and 30 minutes of luminosity
- Tevatron Quench
- AP2 vacuum leak

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

DASTOW photos and web pages available online

Student web pages from last Thursday's DASTOW event are available online. Access student web pages [here](#).

Sign up for Fermilab Blood Drive

Employees, users and summers students can now sign up for Fermilab's quarterly blood drive, taking place Tuesday, June 26 and Wednesday June 27 from 8:00 a.m. to 2:00 p.m. Walk-ins will be welcome. The blood drive will be located in the Wilson Hall ground floor training room. Call Diana at x3771 or Margie at x3411 or sign up [online](#).

June Wilson Hall window washing

Window washing at Wilson Hall will continue through the end of June. Wilson Hall's interior will be washed this week. Please avoid walking through or moving barricades.

[Additional Activities](#)

