

Calendar

[Have a safe day!](#)

Friday, June 11

3:30 p.m.

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

4 p.m.

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

Speaker: Gavril Giurgiu, Johns
Hopkins University

Title: Measurement of CP Violation in
 $B_s \rightarrow J/\Psi \phi$ Decays at CDF

Monday, June 14

2 p.m.

[Joint Experimental-Theoretical
Physics Seminar](#) (NOTE DATE &
TIME) - One West

Speaker: Zarko Pavlovic, Los Alamos
National Laboratory

Title: New Antineutrino Oscillation
Results from MiniBooNE

Speaker: Alex Himmel, California
Institute of Technology

Title: New Results from MINOS
THERE WILL BE NO PARTICLE
ASTROPHYSICS SEMINAR THIS
WEEK

3:30 p.m.

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

4 p.m.

All Experimenters' Meeting - Curia II

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

[Upcoming conferences](#)

[Campaigns](#)

[Take Five](#)

[Tune IT Up](#)

[H1N1 Flu](#)

CMS Result of the Month

Drinking data from a fire hose



In a classic episode of *I Love Lucy*, Ethel and Lucy have to deal with candy being delivered ever more quickly. CMS is encountering the same situation with beam delivered by the LHC, with rather better results.

With 2 1/2 months of running CMS under our belts, the experiment's mid-range goals have evolved. Initially we were happy to record any interactions at a collision energy of 7 trillion electron volts. However, it's important to recall that the beam energy is only one of the important parameters in a particle collider. A second critical parameter is the brightness of the beams, and, in the first few weeks of running, the brightness of the beams was tiny. Under these circumstances, the number of collisions per second was quite modest, and we could record every collision that occurred.

However, the beam brightness has steadily increased over the past two and a half months. It currently takes a minute to see as many collisions as we used to see in a day. Very soon, the same number of collisions will take seconds. Those of us of a certain age might remember the old *I Love Lucy* episode in which [she and Ethel wrap candy](#). It starts out easily, but the rate quickly increases until they can no longer handle it and chaos ensues. This is essentially the situation in which the CMS detector collaborators find themselves.

Of course, this was anticipated. Today's thousands of collisions per second are a far cry from the designed 800,000,000 collisions per second. To cope with the deluge, CMS designed an extensive trigger system. As the torrent of collisions occurs in the center of the detector, carefully designed electronics inspect them all and select those that are most likely to include a discovery. The LHC is now delivering enough beam that we must utilize the trigger system to record only a portion of the collisions.

This is a unique time in the lifetime of an experiment. About every week, the amount of beam delivered by the LHC doubles. With our trigger electronics doing their job,

Recovery Act

Work-in-progress: IB-3 addition shaping up



Workers have set in place the steel shell for the Industrial Building 3 addition.

When walking around the construction site of the Industrial Building 3 Addition, you need only a little imagination to visualize halls, offices, an elevator and skylights. The steel shell for the addition is now in place, marking the future location of Fermilab's new materials laboratory space.

The American Recovery and Reinvestment Act is providing \$4.9 million for the project, including approximately \$3 million to cover initial construction costs. The remaining budget will fund furnishings and several building upgrades, as well as construction management and a budgeted reserve to account for unplanned costs.

A. J. Maggio Co., a firm based in Mt. Prospect, Ill., received the contract to construct the addition. The project has sustained seven full-time employees, an increasingly unusual opportunity during the difficult economic times.

"Fermilab has been easy to work with and very accommodating," said Ken Kleiner, on-site supervisor for A.J. Maggio Co.

The 40-by-192-foot addition will include much-needed space for testing superconducting materials for high-field magnet research and development, and contribute to superconductor radio-frequency research and development.

"Plans for this addition have been on the board since 2003. After several functional changes, it's good to finally start building," said Fermilab Project Manager Russell Alber.

Even after making design changes to accommodate the laboratory's requirements, Fermilab project management

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

Weather

 Chance of thunderstorms
87°/69°

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

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Friday, June 11

- Breakfast: Chorizo burrito
- 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

Wednesday, June 16
Lunch

- Spicy sausage & cheese stuffed portobello mushroom
- Baby greens w/mango & marinated onions
- Fruit tart

Thursday, June 17
Dinner

- Mandarin orange salad
- Grilled swordfish
- Parsley potatoes
- Chive green beans
- Lemon Napoleon

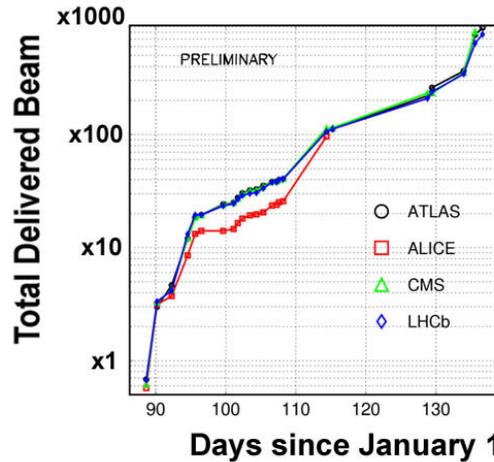
[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

we look forward to seeing our data set grow in leaps and bounds.

-- Don Lincoln



The amount of beam delivered has increased enormously. In the month and a half (45 days) since beginning operations, the amount of beam delivered is more than 10,000 times what we saw on the first day. (Figure adapted from [here](#))



Carrie Farver Fermilab, Terry Grozis Fermilab, Tami Kramer CERN



Terry Read Fermilab, Yasemin Uzunselle-Yazgan CERN, Tina Vernon-Heering CERN

The USCMS strong contribution to CMS would not be possible without the efforts of the administrative support personnel. (Not pictured: Jeanne Douglas, UCLA office.)

Photo of the Day

Coyote pup



and A.J. Maggio Co. have extended the original schedule by only four days. Within a week, eight-inch concrete decking for the second floor will be set. Weather permitting, the building will have a roof by the end of the summer and should be ready for occupancy by the end of December.

"We are very pleased with how the work is proceeding," said Romesh Sood, Fermilab's project director. "When completed, the facility will provide essential and much needed research and development space for the current projects."

-- Daisy Yuhas

[Read more](#) Recovery Act articles

Special Announcement

West Wilson Hall parking lot repairs begin Tuesday

Pavement repairs to the Wilson Hall west parking lot will begin Tuesday, June 15. Roads and Grounds staff expect that the work will take two to three days.

The repairs will result in a reduction of parking area, so some employees may need to use the Lederman Science Center lot for overflow parking. Temporary overflow parking signs will guide drivers. Traffic in the west lot may also be delayed at times by flaggers.

Inclement weather could affect the repair schedule next week. Please watch *Fermilab Today* for further updates.

Announcements

Latest Announcements

[Drug Sniffing Dogs at Users' Center - June 18](#)

[Panel discussion on images in astrophysics - June 13](#)

[Toastmasters - June 17](#)

[10,000 Steps-a-Day iPod shuffle winner](#)

[Bike to Work Week - June 12-18](#)

["Healthy Living to 100" Lunch & Learn - June 17](#)

[Barn dance - June 13](#)

[Fermilab's Family Outdoor Fair - June 13](#)

[Fermilab Today](#)[Result of the Week](#)[Safety Tip of the Week](#)[CMS Result of the Month](#)[User University Profiles](#)[ILC NewsLine](#)**Info****[Fermilab Today](#)**

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PPD's Terry Tope spotted a coyote pup in the woods on Pine Street on June 5.

In the News**Sloan spots one hundred thousand black hole behemoths**

From *Discovery News*, June 9, 2010

The Sloan Digital Sky Survey (SDSS) has mapped the sky and created a database of millions of objects for astronomers to study. This, all with a 2.5-meter telescope in New Mexico. The latest data release catalogs 105,783 quasars, or the active centers of distant galaxies with supermassive black holes.

At the time that SDSS began, only 6,000 quasars were known. Now, this huge database gives the positions, colors, and distances of over 100,000 quasars. The most distant of these is over 12.5 billion light years away, meaning that its light reaches us from when the universe was just over a billion years old.

WIDE ANGLE: Black Holes, Big and Small

This kind of project has been a major shift away from small teams studying individual objects with their telescope time. These data are taken and analyzed and made available to the entire astronomical community, such that a researcher or student at any institution can go in with an idea and use these massive catalogs to do their science.

[Read more](#)

[Ask HR: 15th floor visits PPD - SiDet on Wednesday, June 16](#)

[Fermilab prairie quadrat study](#)

[Deadline for The University of Chicago Tuition Remission Program - June 25](#)

[Adult water aerobics - Mondays](#)

[Adult swim lessons - Mondays](#)

[Learn about green science in Nature's Power Lab, a Science Adventure](#)

[International Folk Dancing resumes in Auditorium today](#)

[Blood drive - June 21 and 22](#)

[Lecture Series: Intermediate/Advanced Topics in C++](#)

[10,000 Steps-a-Day walking program](#)

[Sand volleyball held on Tuesdays](#)

[Video series on scientific case for God's existence starts June 15](#)

[Fermilab Arts Series presents Corky Siegel and Chamber Blues - June 26](#)

[Sign up for summer Science Adventures classes](#)

[Introduction to LabVIEW course - July 13](#)

[Embedded Design with LabVIEW FPGA and CompactRIO seminar - July 13](#)

[Interaction Management Coaching forum - July 27](#)

[SciTech summer camps start June 14](#)

[Submit an announcement](#)

Classifieds

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