

## Calendar

### [Have a safe day!](#)

Wednesday, Sept. 22  
3:30 p.m.

**DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over**  
4 p.m.

[Fermilab Colloquium](#) - One  
West

Speaker: Raman Sundrum,  
University of Maryland  
Title: Warped Dimensions

Thursday, Sept. 23  
2:30 p.m.

[Theoretical Physics Seminar](#) -  
Curia II

Speaker: Ze'ev Surujon,  
University of California, San  
Diego

Title: Spontaneous CP  
Violation from Continuous  
Symmetry Breaking  
3:30 p.m.

**DIRECTOR'S COFFEE  
BREAK - 2nd Flr X-Over**  
4 p.m.

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

West

Speaker: Walter Hartung,  
Michigan State University  
Title: Superconducting RF for  
the Facility for Rare Isotope  
Beams at Michigan State  
University

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

### [Upcoming conferences](#)

## Campaigns

### [Take Five](#)

### [Tune IT Up](#)

## Weather

## Feature

### Leaving a natural legacy



Denis Bowron stands next to an oak tree he planted at Fermilab's Site 38 about 20 years ago, holding a potted sapling to illustrate its original size.

It's the little things that can sprout into something beautiful. Just ask Denis Bowron, a former employee who recently visited the laboratory to see what had come of the acorns he planted on site in the 1980s. Six of them are now oak trees over 20 feet tall.

"I was just trying to return a little something," said Bowron, who retired in 2005 after 31 years as Facility Operations supervisor. "I enjoyed the woods, I had the material, so why not."

In 1988, when Bowron and his wife, Nancy, cleared some woods to build a house on their land in Elburn, the opened space and sudden sunlight caused little oak trees to sprout everywhere. "Jillions of 'em," he said. He was inspired.

"I didn't need them, and I figured I could give them to somebody who'd be able to use them," Bowron said.

Transplanting the trees took some creativity. Bowron first grew them in pots, keeping them in his garage through the winter to protect them from freezing. Once the trees had established a small root system, he brought them to Fermilab and planted them in the field around Site 38. For years, he protected them from their major predators: squirrels and lawnmowers. Roads and Grounds crew members were happy to help him and today, the oaks give them shade.

"Denis is a great example of making little

## From the CMS Center

### CMS progress report

*Lothar Bauerdick, head of the CMS Center at Fermilab, wrote this week's column.*

I spent last week at the CMS Physics Meeting in Bodrum, Turkey. The meeting focused on the progress of reconstructing physics objects in the detector, such as leptons, jets and missing transverse energy that allow physicists to identify and measure collisions containing heavy quarks, massive vector bosons like the Z and the W, and possibly other heavy, undiscovered objects.

As the results presented at the summer conferences have shown, CMS is doing impressively well regarding operational efficiencies and detector performance and is also progressing quickly in understanding the complex detector. Physicists are processing the newly arriving data very quickly, and the results look clean and remarkably similar to our Monte Carlo simulations. This includes even the particularly difficult measurement of missing energy, which is simulated over many orders of magnitude. CMS physicists are readying the tools that they will use to discover signatures of new physics.

Physics results are coming in quick succession. We showed the first measurements of Standard Model processes, such as W and Z boson observations; established the top quark signal, and already provided first limits on physics beyond the Standard Model by looking for anomalies in very high energy particle jets.

CMS has been able to observe top candidate events with luminosities of only a few 100 inverse nanobarns. By November, we expect to have about 1,000 top quark events, which is a good fraction of the size of the total top quark sample the Tevatron experiments have collected so far.

CMS is also looking at intermediate energies where we have seen a [first unexpected result](#)



Lothar Bauerdick

 Chance of  
thunderstorms  
74°/64°

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

[Current Security  
Status](#)

[Secon Level 3](#)

[Wilson Hall Cafe](#)

Wednesday, Sept. 22  
- Breakfast: English muffin sandwich  
- Cajun style lentil soup  
- Cajun chicken ranch  
- BBQ ribs  
- Chicken parmesan  
- Smoked turkey panini pesto mayo  
- Assorted sliced pizza  
- Chicken Alfredo fettuccine

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Wednesday, Sept. 22  
Lunch  
- Stuffed eggplant  
- Marinated garden salad  
- Luscious lemon poke cake

Thursday, Sept. 23  
Dinner  
- Stuffed mushrooms  
- Blackened grouper  
- Dirty rice  
- Maque choux  
- Mocha fudge bread pudding

[Chez Leon Menu](#)

Call x3524 to make your reservation.

[Archives](#)

differences here and there without a formal plan," said Roads and Grounds groundskeeper Bob Lootens. "He wanted to enhance the area he worked in."

Bowron still scatters acorns along the Batavia River Walk and other natural areas.

"Maybe one in a thousand will grow," he said.

Visit the [Fermi Natural Areas website](#) to learn more about how you can help restore the Fermilab site.

-- Sara Reardon

From [symmetry breaking](#)

## LHC experiment observes potentially new and interesting effect

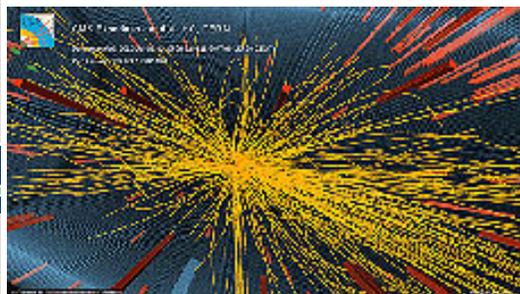


Image of a 7 TeV proton-proton collision in CMS producing more than 100 charged particles.

After almost six months of operation, experiments at the LHC are starting to see signs of potentially new and interesting effects. In results announced by the CMS collaboration today, correlations have been observed between particles produced in 7 TeV proton-proton collisions.

In some of the LHC's proton-proton collisions, a hundred or more particles can be produced. The CMS collaboration has studied such collisions by measuring angular correlations between the particles as they fly away from the point of impact, and this has revealed that some of the particles are intimately linked in a way not seen before in proton collisions.

[Read more](#)

In the News

in analyzing correlations between particles in high-multiplicity events.

In previous months LHC luminosity has grown exponentially. Filling 100 billion protons per bunch after just a few months of running was an important milestone on the way to achieving an integrated luminosity of one inverse femtobarn by the end of next year.

CMS has now collected a luminosity of 3.3 inverse picobarns, already a factor of 10 above what was available for the summer conferences. This week the machine started again after a technical stop. The plan is to increase luminosity by creating bunch trains. Each train has several bunches following one another closely. The trains initially will have four bunches and then increase to eight and then 12.

It has been an amazing summer for CMS and the LHC, and the fall promises to be even more exciting.

[Special Announcement](#)

## Health fair Thursday from 11:30 a.m to 1 p.m.

The Benefits and Recreation Department will sponsor an employee health fair from 11:30 a.m. to 1 p.m. on Thursday, Sept. 23. This year's theme is healthy aging. Attendees can visit vendor booths to sign up for free giveaways, and get free mini massages, muscle scans and bone density screenings. For more information call Jeanne in the Recreation Department at x2548.

[Safety Update](#)

## ES&H weekly report, Sept. 21

This week's safety report, compiled by the Fermilab ES&H section, includes three incidents, one of which was recordable. The recordable incident took place when a service subcontractor suffered a laceration from a sharp edge on a pump cart he was pushing. Find the full report [here](#).

[Safety report archive](#)

[Announcements](#)

[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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[today@fnal.gov](mailto:today@fnal.gov)Visit the Fermilab [home page](#)[Unsubscribe](#) from *Fermilab Today***American physicists scrounge to stay in 'God Particle' race**From *Science Insider*, Sept. 21, 2010

The director of the sole particle physics laboratory in the United States says he has found ways to scrape up about one-third of the money the lab will need to keep pursuing the most sought-after particle in physics, the Higgs boson. Three weeks ago, an independent advisory panel urged officials at Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois, to run the lab's 25-year-old atom smasher, the Tevatron collider, for an additional 3 years through 2014 so that Fermilab researchers would have a real shot at spotting the Higgs before their European counterparts can nail it. Running the Tevatron past its planned September 2011 shutdown would cost \$50 million per year, and today Fermilab Director Pier Oddone announced that lab officials can squeeze about \$15 million per year out of the lab's budget, which this year totals \$410 million—mainly by slowing down two future experiments.

[Read more](#)[Weight Watchers at work club](#)[International Folk Dancing at Ramsey Auditorium Sept. 23 only](#)[Health and Wellness Fair - Sept. 23](#)[Toastmasters - Oct. 7](#)[There's still room in Family Science Time - Saturday, Sept. 25](#)[Silk and Thistle Scottish dancing resumes at the Barn Tuesdays](#)[Fermilab International Folk Dancing at the barn on Thursdays](#)[Argentine Tango, Wednesdays through Sept. 29](#)[Chicago Blackhawks pre-season discount tickets](#)[Workshop on Accelerator-Driven Sub-Critical Systems & Thorium Utilization](#)[Regal Movie Theater discount tickets available](#)[Gizmo Guys - Fermilab Arts Series - Sept. 25](#)[Submit an announcement](#)