

Calendar

Monday, Dec. 20
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
Operation of First Cryomodule at NML Test Facility

Tuesday, Dec. 21
3:30 p.m.
DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over
THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR THIS WEEK

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

[Upcoming conferences](#)

Campaigns

Take Five

Weather



Snow
24°/24°

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

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Monday, Dec. 20
- Breakfast: Croissant sandwich
- Chef's choice soup
- Grille only
- Chefs choice
- Deli only
- Assorted sliced pizza
- Closed

Feature

Fermilab DZero scientists selected as APS fellows

The American Physical Society recently announced new fellows, which include two Fermilab physicists from DZero. This honor is awarded each year to outstanding APS members selected by their peers.



Dmitri Denisov

Dmitri Denisov and Pushpalatha Bhat were named 2010 fellows to the Division of Particles and Fields.

Denisov, co-spokesperson for the DZero experiment, was selected as a fellow "for his numerous and distinguished contributions to

hadronic collider physics, especially in the upgrading, physics leadership and Co-Spokesmanship of the D0 experiment at the Tevatron Collider."



Pushpa Bhat

Bhat, also a DZero scientist, was selected as a fellow "for her demonstration of the effectiveness of advanced statistical methods in extracting the most information from small signals in hadron collider physics and especially for pioneering the use of these techniques to improve the

measurement of the top-quark mass in the D0 experiment at the Fermilab Tevatron."

Congratulations to the 2010 APS Fellows.

In the News

Muzaffer Atac, 1931-2010

From *Chicago Tribune*, Dec. 17, 2010

Physicist was among the founding scientists at Fermilab

As one of the founding

ES&H Tip of the Week - Health



Diabetes: lowering the numbers lowers your risk



A blood glucose monitor can test blood sugar levels. Doctors are seeing diabetes traits showing up in lower blood sugar levels.

As a preventive medicine specialist I'm often asked, "Why do doctors keep lowering the blood sugar numbers for defining diabetes?" It is a fair question; the short answer is because as doctors receive more data they find traits of diabetes showing up at lower blood sugar levels.

This continued improvement in diagnosing diabetes earlier means that you should check with your doctor about whether you should have annual blood sugar tests. Non-diabetic individuals whose fasting blood sugar levels gets progressively higher over the years might benefit from preventative treatment.

Large [long-term studies](#) of populations in several countries have linked chronic elevated blood sugars to kidney, heart, eye and nerve disease. Treatment of diabetes can lower the chances of later complications. An endocrinologist colleague of mine used to comment in disbelief on the number of patients referred to them for early kidney failure only a year after being diagnosed with diabetes. The truth is that those patients had diabetes for much longer and it went undetected or their blood sugar level was in a range that wasn't consider diabetic until recently. Research has shown that long-term damage can occur during the [pre-diabetes stage](#).

The American Diabetes Association recommends screenings for people with the following traits:

- Older than 45,
- Or younger than 45, overweight and

The Cafeteria will have adjusted holiday hours:

Dec. 20-22: 7:30 a.m. - 3 p.m.
Dec. 23: 7:30 a.m. - 11:30 a.m.
Dec. 24-25: closed
Dec. 27-29: 7:30 a.m. to 3 p.m.
Dec. 30: 7:30 a.m. to 11:30 a.m.
Dec. 31 and Jan. 1: Closed.

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Dec. 22
Closed

Thursday, Dec. 23
Closed

[Chez Leon Menu](#)
Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

[Director's Corner](#)

[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*



Muzaffer Atac

scientists at Fermi National Accelerator Laboratory, the national physics lab near Batavia, Muzaffer Atac spent more than four decades working with detectors, which physicists use to record results and understand processes occurring deep inside the building blocks of matter.

The longtime head of Fermilab's detector development group, Dr. Atac also took great pride in education, working simultaneously in the 1980s as a physics professor at the University of California at Los Angeles and at the University of Texas at Dallas. And he helped to create detectors for demonstration purposes for Fermilab's education program, which teaches high-energy physics to junior high and high school students.

"He was just an all-around good guy," said Bruce Chrisman, Fermilab's chief operating officer, who was a graduate school classmate of Dr. Atac's in the 1960s at the University of Illinois. "He was very hardworking and was a solid citizen in the physics community."

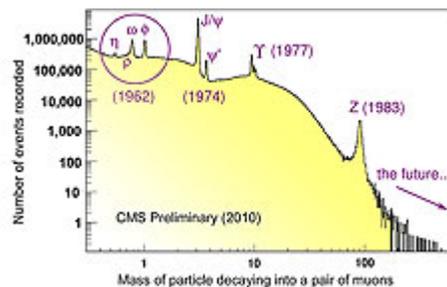
A resident of Wheaton for almost 40 years, Dr. Atac, 79, died Tuesday, Dec. 7, at his home of cardiac arrest, said his wife of 52 years, Ayfer.

Born in Kemaliye, a small mountain village in eastern Turkey, Dr. Atac attended high school in Turkey's capital, Ankara, and went on to earn an undergraduate degree from the University of Ankara. He met his future wife in Turkey, and they wed in 1958.

[Read more](#)

Feature

CMS 2010 wrap up



Several of the particles that were "rediscovered" by CMS in 2010: each peak corresponds to a short-lived particle. Higher-mass particles require more and higher-energy collisions to produce --- physics that took decades to discover --- was confirmed in months by CMS physicists.

with one or more additional risk factors such as family history, inactivity or high blood pressure. [View](#) a complete list.

Adult-onset diabetes, or Type-2 diabetes, affects about 10 percent of U.S. residents older than 20. One of the easiest screenings for diabetes is to test blood sugar the morning after a 12-hour fast. A result of 126 milligrams per deciliter and above means you have diabetes; 100 to 125 mg/dL is the early warning zone showing that you could be becoming diabetic. Those in the pre-diabetes category may be able to use diet, exercise or weight loss to prevent or forestall the need for medication.

A physician often recommends an additional hemoglobin A1C test when there is a question of diabetes. This test looks for a glucose molecule bonded to the hemoglobin within the red blood cell. This bond is permanent and this marker persists for the 100-120 day lifetime of the blood cell. This test can tell you what your average blood sugar was during the past few months.

Get tested to make sure you don't end up one of those people saying, "If I knew I was going to last this long, I would have taken better care of myself." Knowing your diabetes status or risk is one way to help make those years to come more enjoyable.

--Dr. Brian Svazas

Accelerator Update

Dec. 15-17

- Three stores provided ~36.1 hours of luminosity
- MI-52 septa repaired
- NuMI recovered its target LCW system
- TRF6 repaired and brought online
- Tevatron sector A3 wet engine flywheel repaired
- Tevatron personnel conducted 150 GeV studies
- CDF access between stores to recover detector

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

Latest Announcements

[Users Center closed Dec. 20 - Jan 7](#)

[Cafeteria holiday hours Dec. 20 - Jan. 1](#)

[Project Management Introduction class - Feb. 14, 16 & 18](#)

[Transportation Services holiday service closed Dec. 23 and 30](#)

Have you ever heard the story where someone offers you a penny and doubles it every day for a month? By the end of the month, the penny grows to 10 million dollars. This year was a bit like that for CMS, in terms of proton collisions and physics results. The rate of proton collisions doubled and re-doubled so quickly that the total number of collisions by the end of the year was about a billion times the number that occurred on that first day in March.

This rapid increase in data was similar to a whirlwind tour through particle physics history. In the first few minutes, we saw muons (originally discovered in 1936), followed by neutral pions and kaons (1950). In the early weeks, people talked about “the particle du jour,” as each of the mesons and baryons that so perplexed physicists in the 1960s became visible in the CMS data. Within a month or two, the charm (1974) and beauty (1977) quarks revealed themselves, as well as the W and Z bosons (1983). By July, evidence for the top quark (1995) became clear, making the LHC the world’s second accelerator to produce this mysteriously heavy quark.

Now that the detector's capabilities have been demonstrated by rediscovering known physics, we turn our attention to the unknown. CMS data have pushed back the limits of our knowledge about potential structures [inside of quarks](#) and many other [exotic phenomena](#). There was even [a puzzling new discovery](#), completely unexpected, in correlations among the so-called background spray of particles. In the very first hours of lead ion collisions, jets of particles were dramatically absorbed in [droplets of liquified nuclei](#). More than a dozen CMS papers have been published on high-energy collisions, with many more in the pipeline, as the torrent of data is carefully converted into precision measurements.

We would like to thank the LHC accelerator staff for a highly successful 2010 physics run, and wish everyone a restful break and a happy new year!

-- Jim Pivarski

[Eastbound Butterfield Road closed through Dec. 20](#)

[Reminder Timecards due early for Week of Dec 20 - 26](#)

[Movie tickets make gift giving easy](#)

[Medical Department holiday schedule](#)

[Submit a topic suggestion for Disability Awareness Seminar](#)

[Guided practicas for Argentine Tango through Dec. 29](#)

[Fermilab Today holiday schedule](#)

[Open basketball at the gym](#)

[Folk Dancing weekly on Thursdays in Dec.](#)

[Fermilab Blood Drive Dec. 20 & 21 \(Walk in only\)](#)

[Fermilab Arts and Lecture Series Box Office winter schedule](#)

[Users Office Holiday Hours](#)

[Accelerate to a Healthy Lifestyle Program through Dec. 31](#)

[Disney On Ice presents Toy Story 3 Feb. 2-13](#)

[Submit an announcement](#)