

Calendar

[Have a safe day!](#)

Friday, Jan. 14
2 p.m.

[Computing Techniques Seminar](#) - FCC1

Speaker: Sebastien Goasguen, Clemson University
Title: Inter-Cloud Computing

3:30 p.m.

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

4 p.m.

[Joint Experimental-Theoretical Physics Seminar](#)

- One West
Speaker: Friedrich Dydak, CERN
Title: New Results from HARP-CDP and the "LSND anomaly"

8 p.m.

[Fermilab Lecture Series](#) -

Auditorium
Tickets: \$7
Speaker: Dr. D. James Surmeier, Northwestern University
Title: How the Brain Controls Our Choices, and What Can Go Wrong

Monday, Jan. 17

Martin Luther King holiday

Tuesday, Jan. 18

3:30 p.m.

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

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

[Upcoming conferences](#)

Campaigns

Take Five

Weather



Mostly cloudy

Special Announcement

All-hands meeting at noon Wednesday, Jan. 19

An all-hands meeting will take place at noon on Wednesday, Jan. 19. Fermilab Director Pier Oddone will discuss the announcement about the Tevatron and the laboratory's future.

Feature

Larry and the Linac: Larry Allen retires after 38 years



Engineering physicist Larry Allen in the Linac. Allen retired in December after nearly 39 years.

In some ways, Larry Allen and the Linac have matured together. When Allen began working at Fermilab in 1972, the Linac was in its infant stages. Allen wasn't very old either – he'd just finished a program at DeVry.

"I saw an ad for Fermilab and thought that this would be a cool place to work," Allen said.

It was. But Allen hasn't just worked at the laboratory; he's helped to make the laboratory work.

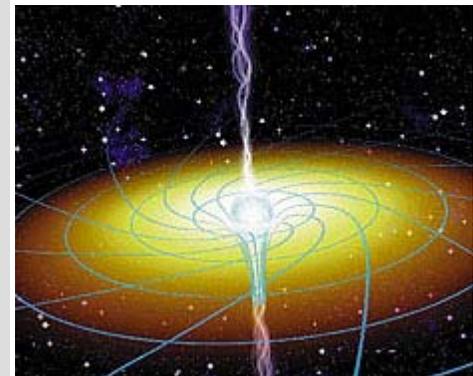
During Allen's nearly 39-year career at Fermilab, he's spent about 30 of those years helping to tune, repair and replace parts in the Linac to keep it running. He recently retired in December.

"The group leader who preceded me said that the machine ran better when I was around," Allen said.

The Linac is a 500-foot-long linear accelerator that sends beams of negatively charged hydrogen ions to the next in a

CMS Result of the Month

Microscopic black holes not observed



One theoretical speculation about why gravity is so much weaker than the other known forces postulates the existence of additional dimensions beyond the familiar three. If this idea is true, then the LHC might be able to create microscopic black holes. If observed, they would have a major impact on our understanding of the laws of physics.

According to the laws of physics as we currently understand them, it is impossible to make microscopic black holes at the LHC. There is simply no way to pack enough energy into a small enough space to trigger the mechanisms that make a subatomic singularity.

However, many speculative ideas are being tested at the LHC, some of which predict microscopic black holes. If a microscopic black hole were to be produced in collisions at the LHC, it would evaporate immediately, producing a distinctive spray of sub-atomic particles of normal matter.

One idea about microscopic black holes was outlined in earlier articles ([here](#) and [here](#)). Those articles described a potential answer to the question of why gravity is so much weaker than the other forces. The proposed solution invokes the idea that perhaps there are undiscovered additional dimensions. In this scenario, gravity is just as strong as the other forces, but gravity can enter these extra dimensions while the other forces can't. Because gravity has more places to spread out, it appears weaker when viewed in our familiar world of three spatial dimensions. When studies are done at the small scales possible at the LHC, perhaps gravity will appear to become suddenly stronger.

27°/19°

[Extended Forecast
Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Friday, Jan. 14

- Breakfast: Chorizo burrito
- New England clam chowder
- Carolina cheeseburger
- Tuna casserole
- Dijon meatballs over noodles
- Bistro chicken & provolone panini
- Assorted sliced pizza
- *Carved top round of beef

**carb-restricted alternative*

[Wilson Hall Cafe Menu](#)

Chez Leon

**Friday, Jan. 14
Dinner**

- Closed

**Wednesday, Jan. 19
Lunch**

- Crepes w/black forest ham & gruyere
- Green salad
- Cold lime soufflé

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

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[Result of the Week](#)

[Safety Tip of the Week](#)

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Info

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www.fnal.gov/today/

Send comments and suggestions to:
today@fnal.gov

Visit the Fermilab

series of accelerators. It first sent beam to another accelerator in April of 1969.

"We had not gotten to 200 GeV when I started working here," Allen said.

Allen joined the laboratory in 1972 as an operator. He worked as an operations specialist from 1977 until 1990, when he became an engineering physicist. From the mid-90s until recently, he's worked as the Linac group leader. From the late 1970s until 2010, his focus was on the Linac.

For Allen, there is never a question of whether he can fix the Linac, said Bill Pellico, a colleague of Allen's for the past 25 years, there is just a question of how long that fix will take.

Pellico has worked on the Proton Source Department Booster since 1995, and Allen on the Linac side.

"When a failure occurs, Larry searches through the database in his head," Pellico said. "The systems fail in a similar way over the years and when a problem occurs, he's like a doctor – he looks at the symptoms and then solves the underlying problem."

When he began phased retirement in 2008, Allen handed over the accelerator reigns to Fernanda G. Garcia. However, he's still the person they call when the going gets really tough, or when things aren't going at all.

"There were instances where we were down for an extensive period of time chasing problems and trying to get machines back up and we'd have to call Larry for assistance at early hours of the day. He was always very professional and always willing to help," Garcia said. "He's a person you could count on. He knows every single bolt."

Most recently, Allen has spent his time mentoring those who will keep the Linac running in the future.

"Sometimes people push training others aside to get a machine up as quickly as possible," Pellico said. "But Larry would take a mentor role with trainees. He'd share and teach as much information as he could as they worked to get the machine back on."

[Read more](#)

- *Rhianna Wisniewski*

In the News

What's ahead for Fermilab without massive particle collider Tevatron

From *WBEZ's Eight Forty-Eight*, Jan. 12, 2011

The federal government recently announced it will no longer fund Fermilab's massive

If gravity turns out to be strong, then perhaps it actually is possible to make microscopic black holes. With this theoretical premise in mind, CMS physicists [searched](#) for microscopic black holes. If they exist, physicists believe they will decay via Hawking radiation, first postulated by noted physicist Stephen Hawking. No evidence was observed that was consistent with the creation of black holes. The only way microscopic black holes can be made at the LHC is if gravity somehow becomes much stronger, kind of like an atom suddenly becoming nearly as big as the visible universe. If microscopic black holes ever are observed, it will totally rewrite our understanding of the universe. This was the first such search at the LHC, but surely not the last.

[Read more](#) about this CMS result.

-- *Don Lincoln*



Alexey Ferapontov Greg Landsberg Patrick Tuang

Physicists at Brown University have had a long interest in searching for microscopic black holes, which naturally led to this early CMS paper.



Patrick Gaertung Fermi Lab Petar Maksimovic Johns Hopkins Sudhir Malik U. Nebraska/INEL



Charles Flager UCLA/FNAL Salvatore Rappocciolo Johns Hopkins Eric Vaandering Fermilab

These physicists form part of the LPC Users Support Group and provide invaluable help necessary to make the Fermilab CMS effort run smoothly. From desktop support to CMS Analysis techniques and tools, without these mechanics, nothing would get done.

Correction

Correction

In yesterday's edition of *Fermilab Today*, the Result of the Week incorrectly stated that the UA1 experiment at CERN discovered the W and Z bosons. The UA1 and UA2 experiments at CERN both discovered the W and Z bosons. *Fermilab Today* regrets

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particle collider and when Tevatron stops operating later this year, up to 100 employees may also lose their jobs.

The particle collider in west suburban Batavia was once the world's most powerful. Then along came Europe's Large Hadron Collider. So now that Fermilab has lost its crown jewel - what's next?

"Eight Forty-Eight" spoke to Fermilab's director, Pier Oddone. Dr. Oddone directs efforts at Fermi National Accelerator Laboratory in Batavia, Ill.

[Listen](#) to the interview

In the News

Tevatron still churning out exciting physics

From *Physicsworld.com*, Jan. 13, 2011

Fermilab's ageing Tevatron may be due to cease operations at the end of September but for the time being it continues to produce new physics results. Researchers have found that pairs of top quarks and anti-top quarks are produced at the Tevatron with a greater spatial asymmetry than is expected from theory. The result suggests the existence of particles outside of the Standard Model, but this will need to be backed up with more data before physicists overhaul their current theories.

The Tevatron, located at the Fermilab near Chicago, collides protons with antiprotons. Among the many different kinds of particle produced in these collisions are pairs of top quarks and anti-top quarks, generated via the strong force. Detailed calculations reveal that the production of these particles should be affected slightly by charge, meaning that they may not be produced in exactly equal numbers. The reason for this is that the positive charge of a quark contained within an incoming proton tends to repel a top quark very slightly while attracting an anti-top quark, and vice-versa for an incoming antiproton, thereby introducing a small asymmetry into the distribution of outgoing top quarks and anti-top quarks.

[Read more](#)

the error.

Announcements

[Meet The UEC Coffee Break - today](#)

[Toastmasters - Jan. 20](#)

[Barn dance - Jan. 16](#)

[Fermilab Lecture Series - "How The Brain Controls our Choices, and What Can Go Wrong" - today](#)

[Jennifer Gunn \(Flutist with CSO\), and Fareed Haque \(Guitar\) in concert Jan. 23](#)

[Lecture Series - "Electrochemical Energy Storage for Transportation: Opportunities and Challenges in an Evolving Lithium Economy"](#)

[Apply now for URA Visiting Scholars awards program deadline Feb. 18](#)

[Floating holiday - Kronos Timecard](#)

[Planning & Scheduling with Primavera P6 class Jan. 25 - 17](#)

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

[Social security tax change](#)

[Traffic Safety Seminar - Jan. 20](#)

[Chez Leon dinner Friday, Jan. 21](#)

[GSA announced 2011 standard mileage reimbursement rate](#)

[Accelerate to a Healthy Lifestyle wrap up](#)

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

[Reminder: Weight Watchers at Work](#)

[FRA Scholarship 2011](#)

[Open basketball at the gym](#)

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

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Classifieds

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