

05/17/22

The other physics problem

Black physicists say efforts to recruit and retain more Black students must concentrate on challenges they face at both Historically Black Colleges and Universities and Primarily White Institutions.



05/10/22

Think like a computer

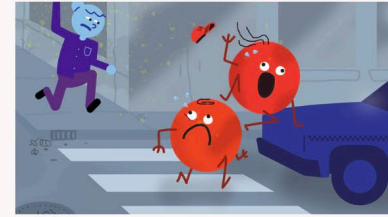
A pilot program, designed in part by educators at Sanford Underground Research Facility, is introducing computational thinking into elementary school curricula.



05/03/22

Can a theory ever die?

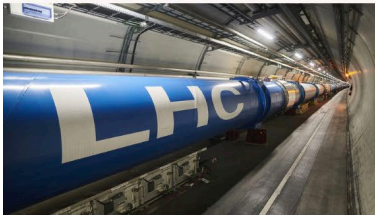
Neglected theories will wilt and wither but can bloom again with enough attention.



04/26/22

Double trouble Higgs

Scientists worried Higgs pairs would be too rare for LHC experiments to find. But by using machine learning, they now are getting tantalizingly close.



04/22/22

What's new for LHC Run 3?

CERN's accelerators and the LHC's detectors have undergone major upgrades that will allow scientists to collect more data in the upcoming run than they did in the previous two runs combined.



04/19/22

Hitoshi Murayama brings people together

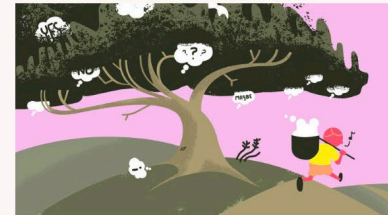
Building international research communities is a cornerstone of Murayama's physics career.



04/12/22

How to make a muon beam

For the Muon g-2 experiment, researchers create billions of muons to study their surprising properties.



04/05/22

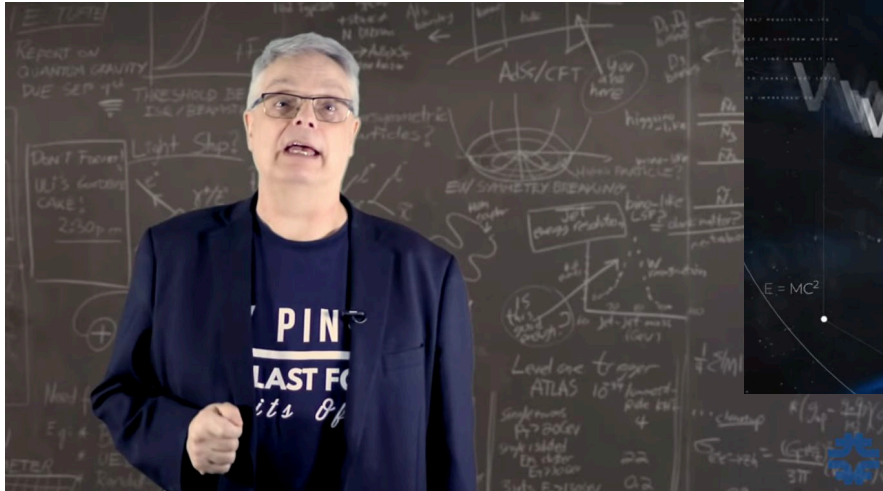
Where do theories come from?

The catalysts for inspiration are hard work and innumerable connections with a wider scientific community.

Recent issues:

- What's up with the W boson mass?
- The other physics problem
- Think like a computer
- Can a theory ever die?
- Double trouble Higgs
- What's new for LHC Run 3?
- Hitoshi Murayama brings people together
- How to make a muon beam

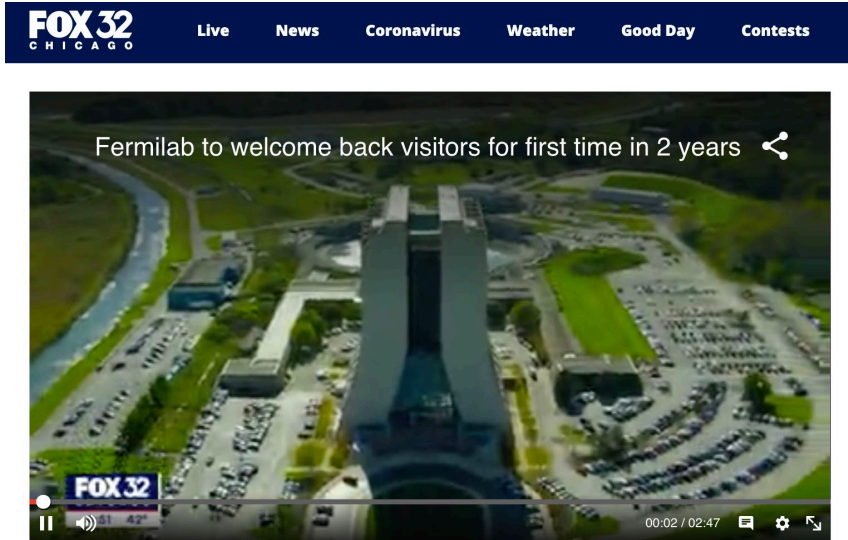
New Fermilab videos on YouTube



FOUR EASY STEPS TO NEUTRINOS

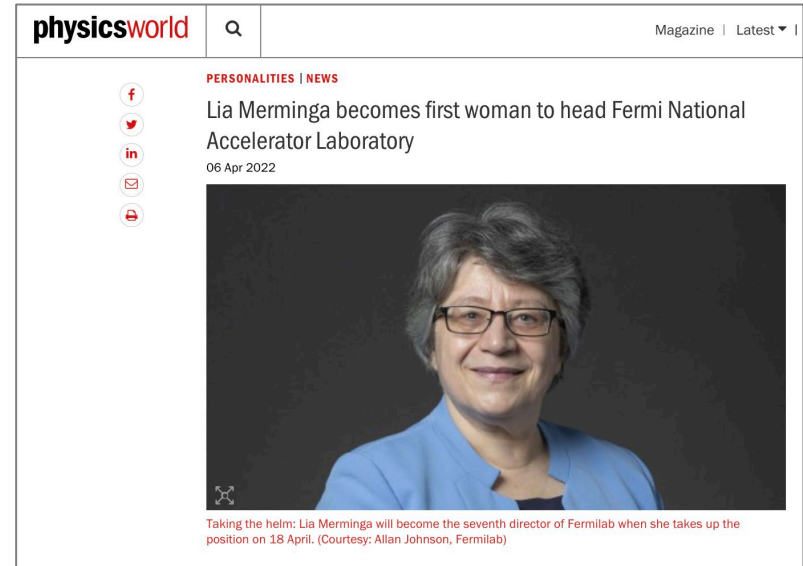
1. ACCELERATE PROTONS
2. AIM
3. SMASH
4. WAIT...SCIENCE!

Fermilab in the news



Fermilab to welcome back visitors for first time in 2 years

For the first time in two years, Fermilab is welcoming back visitors. The lab grounds will be opened to visitors for outdoor activities!



Fermilab in the news



Fermilab welcomes new baby bison as first sign of spring



Fermilab welcomes new baby bison as first sign of spring



Fermilab welcomes new baby bison as first sign of spring

Fermilab in the news

nature italy

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nature > nature italy > q&as > article

Q&A | 20 May 2022

Challenging the standard model

Giorgio Chiarelli tells the story of how Italy contributed to the discovery of the W boson mass, opening a door on new physics.

Chiara Sabelli

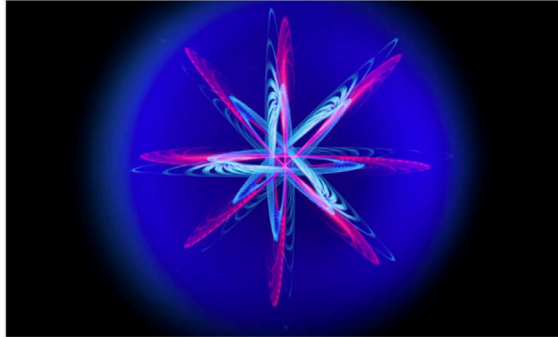


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A Tiny Particle May Upend Physics ... And Our Own Understanding of the Universe



WIRED

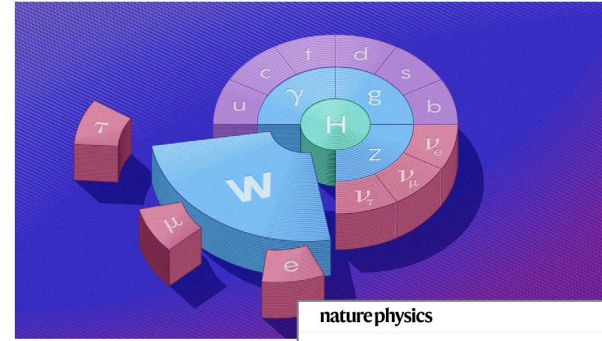
BACKCHANNEL BUSINESS CULTURE GEAR IDEAS SCIENCE SECURITY

5/18

CHARLIE WOOD SCIENCE APR 17, 2022 9:00 AM

A Newly Measured Particle Could Break Known Physics

A new analysis of W bosons suggests these particles are significantly heavier than predicted by the standard model of particle physics.



nature physics

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News & Views | Published: 13 May 2022

PARTICLE PHYSICS

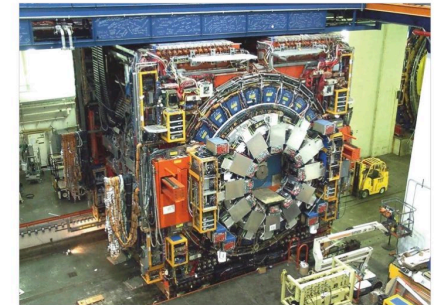
Watch out for the W

Stefanie Reichert

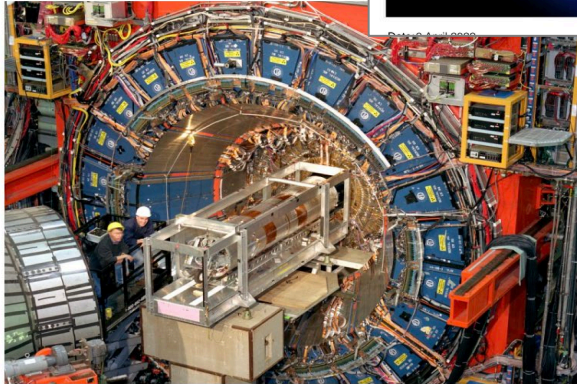
Nature Physics 18, 486 (2022) | [Cite this article](#)

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The 1960s saw the development of the theory of the unified weak and electromagnetic interaction, predicting the existence of two massive gauge bosons – the W and Z bosons – in addition to the massless photon. The resulting excitement of the long search for the W and Z bosons extended far beyond the scientific community. During her time as Prime Minister of the United Kingdom, Margaret Thatcher was the first person outside of CERN to be informed about the imminent discovery of the W boson. And in 1983, the news was shared with the world.



Credit: Signal Photos / Alamy Stock Photo

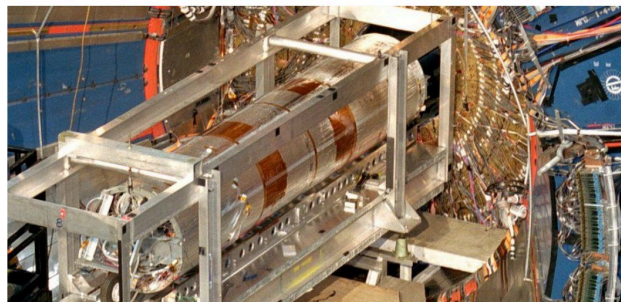


The Collider Detector at Fermilab recorded high-energy particle collisions produced by the Tevatron collider from 1985 to 2011. About 400 scientists at 54 institutions across 23 countries are still analyzing the wealth of data collected by the experiment. Photo: Fermilab.

Shock result in particle experiment could spark physics revolution

By Pallab Ghosh
Science correspondent

7 April

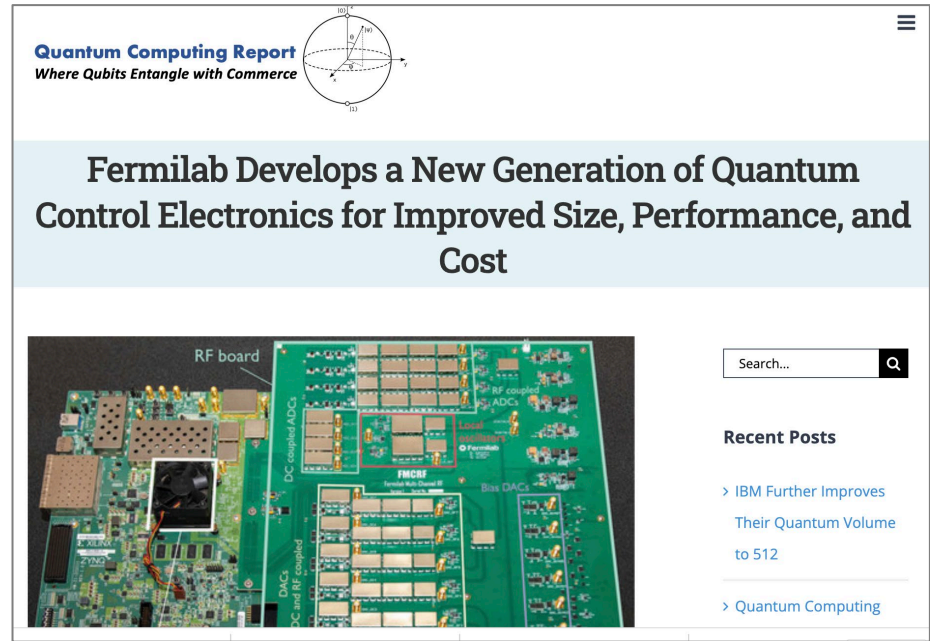
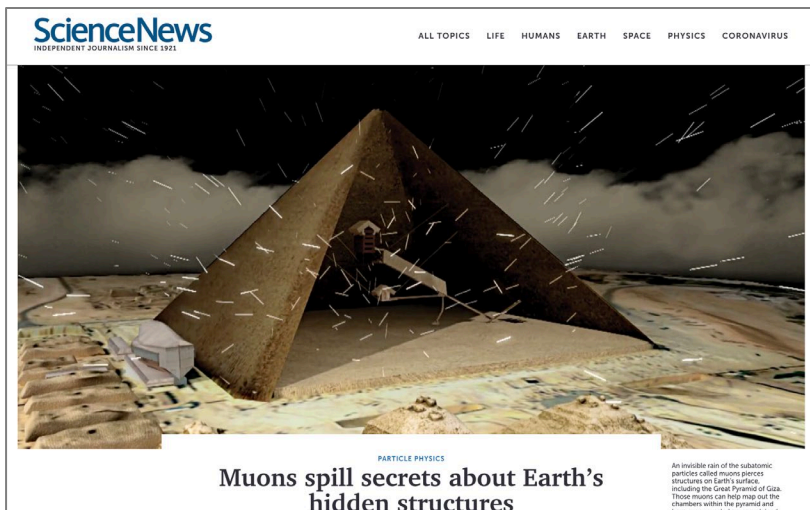
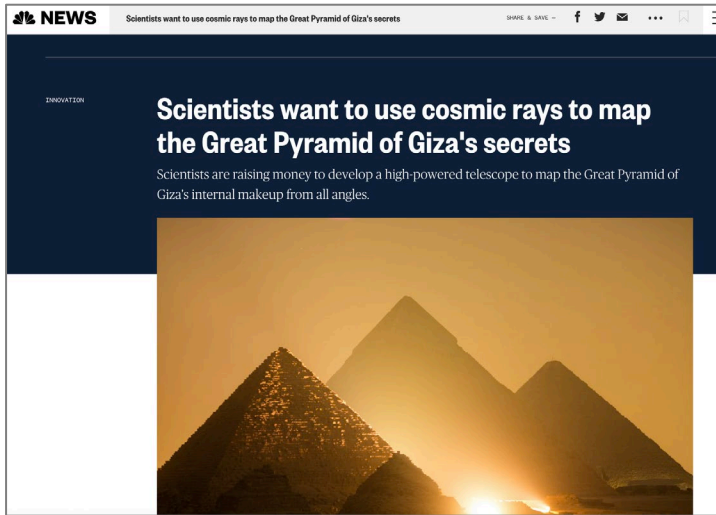


BBC

NEWS

Fermilab

Fermilab in the news



QUESTIONS

The word "QUESTIONS" is written in large, bold, white capital letters with a slight drop shadow. It is centered and surrounded by a vibrant, multi-colored collage of question marks and geometric shapes (circles, squares, triangles) in various colors including blue, yellow, orange, green, pink, and purple. The background is white.