



The latest news from Fermilab

Community Advisory Board meeting

March 27, 2025

Office of Communication

From the newsroom

10 stories were posted in the Fermilab newsroom between Jan. 24 – March 25

Fermilab seeks to broaden industry adoption of electron accelerators

Feb. 10, 2025

1,100 views

New DESI results strengthen hints that dark energy may evolve

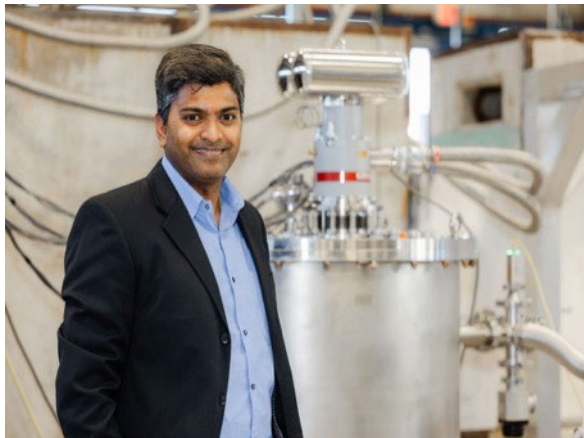
March 19, 2025

744 views

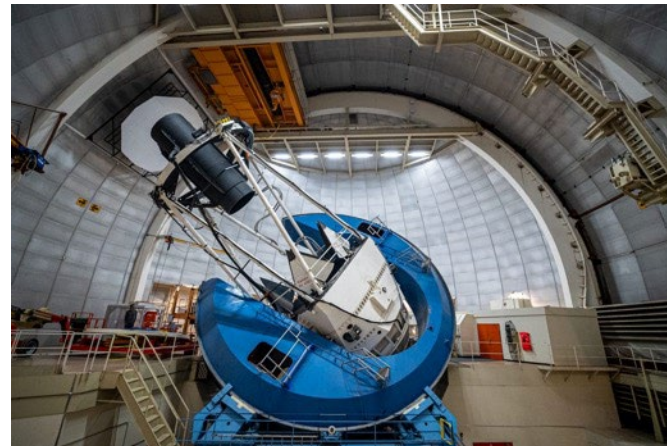
Scientists recall the discovery of the top quark 30 years ago at Fermilab

March 14, 2025

718 views



Charles Thangaraj stands beside the conduction-cooled cryostat that will house a superconducting radiofrequency accelerator. Credit: Tom Nicol, Fermilab



DESI is a state-of-the-art instrument and can capture light from up to 5,000 celestial objects simultaneously. Credit: Marilyn Sargent/Berkeley Lab

From the newsroom

Fermilab's Lederman fellows drive quantum research to discover dark matter and inspire the next generation of scientists

March 11, 2025

653 views

Fermilab leads project to develop novel quantum sensor

March 25, 2025

580 views



2025 Lederman Fellows: Dylan Temples, Sara Sussman and Christina Wang

Photo: Dan Svoboda, Fermilab

From the newsroom – press releases

Fermilab leads project to develop novel quantum sensor

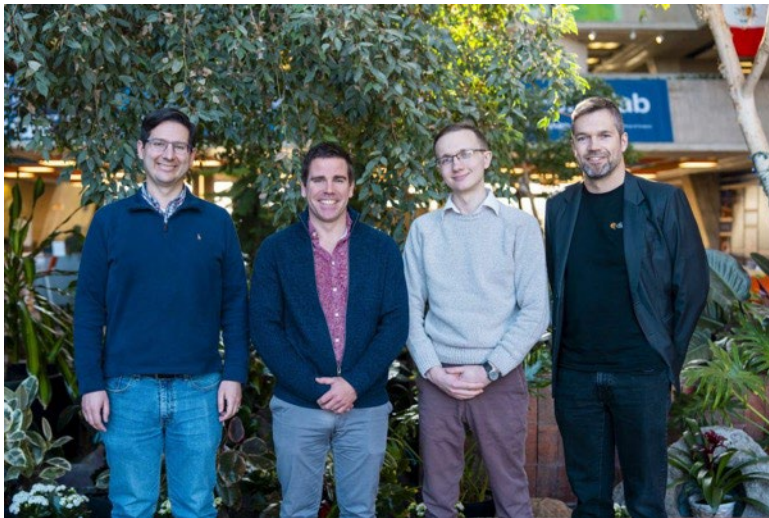
March 24, 2025

DESI opens access to the largest 3D map of the universe yet

March 19, 2025

New DESI results strengthen hints that dark energy may evolve

March 19, 2025



Members of the Quandarum project to produce a quantum sensor to search for dark matter

Credit: Dan Svoboda, Fermilab



DESI used millions of galaxies and quasars to build the largest 3D map of our universe to date.

Credit: LBNL

Social media

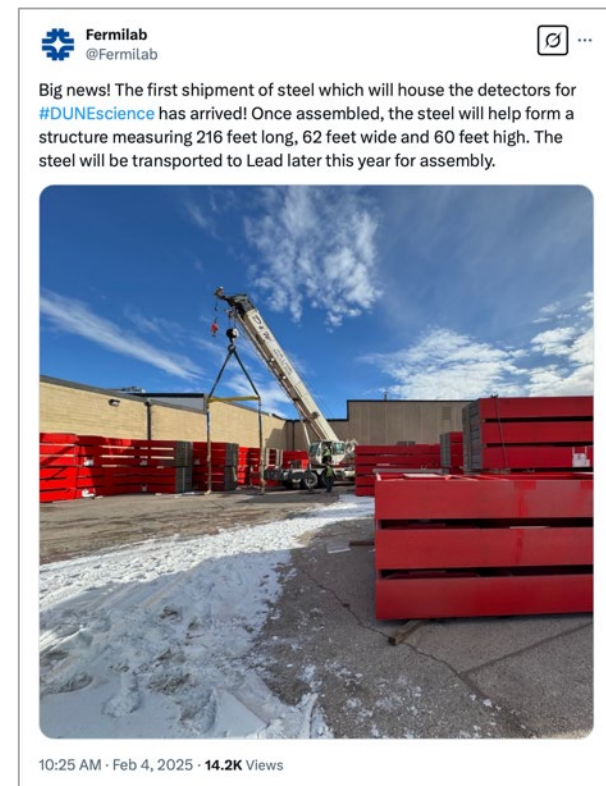
Our “Top Quark turns 30” campaign reached over 250,000 impressions across all platforms in March. Brookhaven celebrated the anniversary as well.



Social media

Our top three posts for this period were:

- A Reel provided by DESI/Berkeley lab for the DESI dark energy announcement, over 100k views on Facebook
- Our top quark discovery article post was viewed by over 65k accounts on X/Twitter
- Physics slang defined: Flavor, viewed by 48k accounts on Facebook
- Special mention: DUNE steel delivery post reached 14k views on X/Twitter



New videos



Don Lincoln: **How do scientists handle antimatter?**



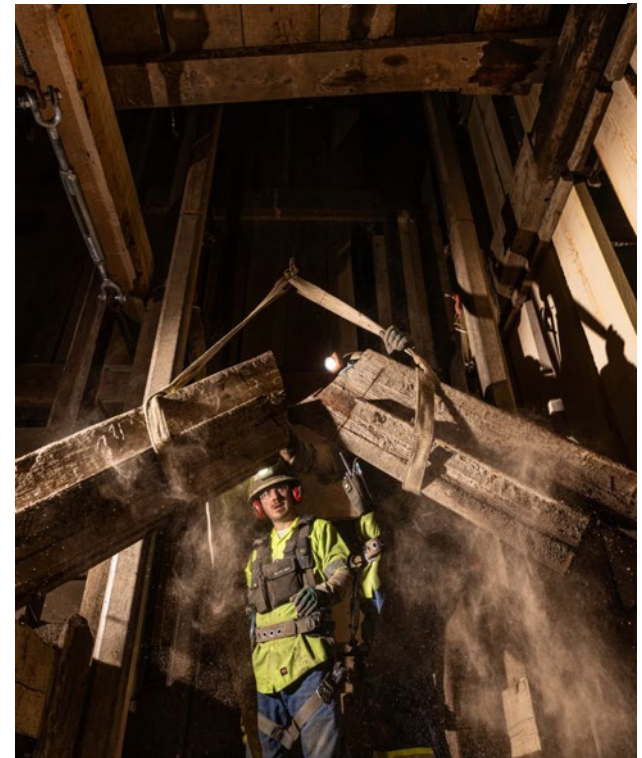
What is quantum science?

A new series in celebration of the International Year of Quantum Science and Technology.
Bonnie Fleming, Fermilab's Chief Research Officer

Fermilab in the news – DUNE



America's Underground Lab overhauls its WWII era wooden mine shaft



yahoo!finance



The Deep Underground Neutrino Experiment Could Answer Profound Cosmic Questions

Learn why the neutrino detector aims to capture elusive particles, hoping to reveal why the universe is the way it is.



Fermilab in the news

physicsworld

Fermilab's Anna Grassellino: eyeing the prize of quantum advantage

05 Mar 2025 Sponsored by SQMS Center - Fermilab

The US Superconducting Quantum Materials and Systems (SQMS) Center is opening up new frontiers in quantum information science



INTERESTING ENGINEERING

Neutrinos could give us real-time access to the solar core, help study its density

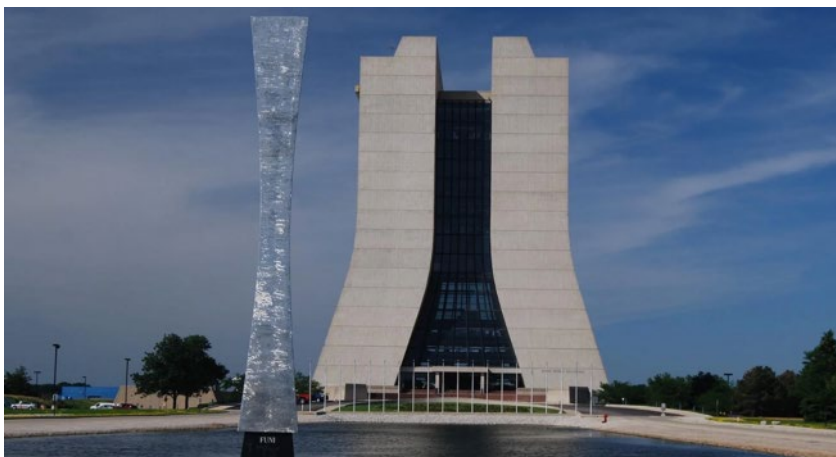
Fermilab in the news



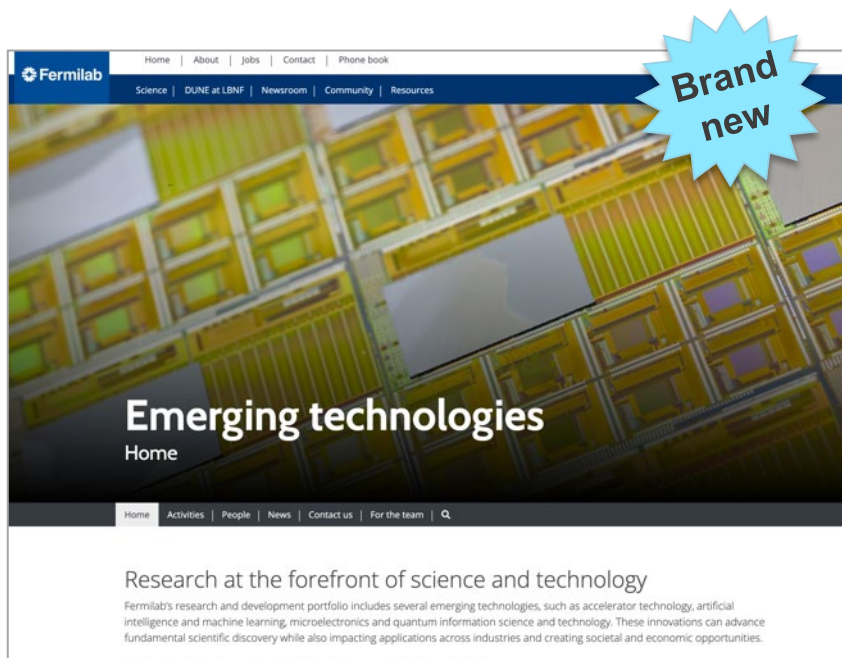
Diraq And Fermilab Partner On DOE-Funded Quantum Sensor Project To Probe Dark Matter



Report Card Slams Budget Mismanagement, Safety Concerns at Fermilab as New Contractor Takes Over



Website updates



Emerging technologies explores the fascinating work and significant advancements being made at the lab in these areas.

Tritium at Fermilab

Tritium in sanitary sewers

As part of our environmental monitoring program, we routinely sample our sanitary sewer water that is discharged to wastewater treatment systems in the cities of Batavia and Warrenville. Samples taken from sanitary sewer water discharged to the Batavia Wastewater Treatment Facility show small but measurable levels of tritium. All tritium levels found on site are well below any federal health and environmental standards. No tritium has been detected in sanitary sewer water discharged from Fermilab to the city of Warrenville.

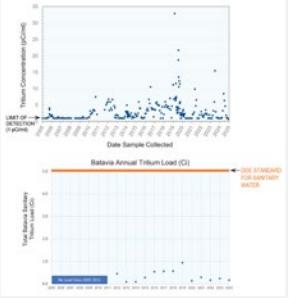

Fermilab discharges an average of 53,274 gallons of sewer water to the wastewater treatment facility in Batavia each day. The lab has conducted environmental monitoring of the sanitary sewer water since the mid-1990s. In 2005, we detected low levels of tritium in our sanitary sewers for the first time. To date, the annual average level detected in the sanitary sewer water discharged to the city of Batavia is roughly 5-to-10 picocuries per milliliter (pCi/ml). The lab has to meet a DOE requirement of discharging less than five curies (or five million million picocuries) of tritium total per year, and the annual load (based on the discharge volumes and the plotted concentrations) in 2024 was less than 0.2 curies.

Sanitary sewer water that is treated in Batavia's wastewater treatment facility is discharged into the Fox River. While there is no treatment that will remove tritium from water, the low levels we measure in our sanitary sewers are diluted to undetectable levels by the time they reach the Fox River (click on graphic to view larger). The amount of tritium that Fermilab adds to the Fox River is less than that added naturally by rainwater.

Fermilab takes the release of tritium seriously, and is not satisfied with merely meeting regulatory requirements. The lab's Tritium Task Force, comprising physicists and engineers from across the laboratory, is actively investigating the sources of tritium in the sewer water and determining how to minimize it.

The lab routinely takes samples from the sanitary sewer water, and we will post those readings on this page.

If you have any questions about tritium at Fermilab, please call the Office of Communication at 630-840-3351, or [submit a question online](#).

Tritium at Fermilab was updated in February with the results from the most recent samples collected.

Visit the Fermilab newsroom for the latest news and information.

<https://news.fnal.gov/>

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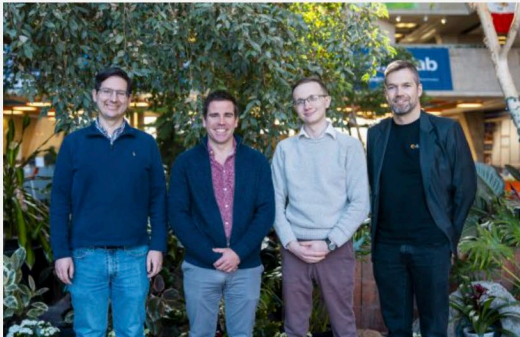
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Newsroom

Fermilab is America's particle physics and accelerator laboratory. Our vision is to solve the mysteries of matter, energy, space and time for the benefit of all.

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Featured



Fermilab leads project to develop novel quantum sensor

March 24, 2025

collaboration | quantum sensor | qubits

PRESS RELEASE

Fermilab is finalizing a partnership with Diraq and several universities for the Quandarum project. The project team intends to combine extreme environment electronics and silicon spin qubits to develop a quantum sensor that could profoundly impact the field of high-energy physics.