

CAB meeting, March 2022

Fermilab News

A virtual view of the Fermilab bison herd through new bison cam

New camera announced February 11

<https://news.fnal.gov/2022/02/a-virtual-view-of-the-fermilab-bison-herd-through-new-bison-cam/>

Fermilab open house reaches science fans around the world

A virtual view of the Fermilab bison herd through new bison cam

EPE YouTube of all 2022 events are on:

<https://www.youtube.com/playlist?list=PLa0heFsaYOVkefhGxDMmLuLmGPmDsX7cx>

New SQMS study uncovers impurities in a qubit

Scientists at the Fermilab-led SQMS Center investigate qubits at the atomic level to identify sources of various impurities. By having a deeper understanding of how impurities affect how long a qubit can store information, scientists will be able to figure out how to further improve the performance of quantum computers.

<https://news.fnal.gov/2022/02/new-sqms-study-uncovers-impurities-in-a-qubit/>

The #IfThenSheCan exhibit, Jessica Esquivel

Smithsonian Honors Female Scientists With 120 Bright Orange Statues

<https://www.smithsonianmag.com/smart-news/smithsonian-honors-female-scientists-with-120-bright-orange-statues-180979579/>

<https://www.pbs.org/newshour/arts/smithsonian-to-show-120-orange-statues-of-female-scientists>

NBC - Madison

Smithsonian to show 120 orange statues of female scientists

<https://www.nbc15.com/2022/02/11/smithsonian-show-120-orange-statues-female-scientists/>

Washington Post

Got a kid with a blossoming interest in STEM? These spots will inspire a love of science.

<https://www.washingtonpost.com/dc-md-va/2022/03/10/women-in-stem-inspiration/>

DOE.gov

Mail some inspiration: share our postcards for Women's History Month

Fermilab Physicist Dr. Jessica Esquivel was honored by DOE during Women's History Month. As part of "IfThenSheCan — the Exhibit" featuring 120 life-size statues of leading women in STEM (science, technology, engineering and math) around the National Mall as the centerpiece of [Women's Futures Month](#). It is considered the largest collection of statues of women ever assembled together.

News/People

[Fermilab's Patty McBride elected next CMS spokesperson](#)

Patty McBride not only became a physicist, but she will now lead one of the largest scientific collaborations in history: the CMS experiment, which collects and studies particle collision data from the Large Hadron Collider at the international laboratory CERN.

[Fermilab Lederman Fellow recognized with dissertation award](#)

Cristina Mantilla Suarez is the recipient of the Mitsuyoshi Tanaka Dissertation Award in Experimental Particle Physics by the American Physical Society.

[Fermilab scientist Matt Toups elected new co-spokesperson of MicroBooNE](#)

The MicroBooNE collaboration elected a new leader, **Matt Toups** alongside Justin Evans of the University of Manchester in leading the experiment. With data collection recently completed, the collaboration is now focused on analysis, peering into six years' worth of data to better understand **neutrinos**.

[A minute with Sandra Nelson, manager – sponsored programs and corporate accounting](#)

Spotlight with the Fermi Research Alliance accounting manager (FRA) Sandra Nelson who manages Fermilab for the Department of Energy. She works on all financial aspects of FRA, the more salient areas being financial statements, reports for DOE, tax returns, budgets, reports for the board of directors and the recent addition of sponsored programs.

[Bernstein, Bhat elected 2021 AAAS fellows](#)

The American Association for the Advancement of Science has elected Fermilab scientists **Robert Bernstein and Chandrashekhara Bhat** as 2021 AAAS fellows. A lifetime distinction, an election as an AAAS fellow honors members whose efforts on behalf of the advancement of science or its applications in service to society have distinguished them among their peers and colleagues.

[Fermilab doctoral researcher receives outstanding thesis research award](#)

The American Physical Society has awarded Ihar Lobach its 2022 Outstanding Doctoral Thesis Research in Beam Physics Award

[A minute with Martel Walls, lead technician](#)

Martel Walls shares how he loves working with his hands and learning on the job.

[A minute with Tiffany Price, mechanical engineer](#)

A GEM Fellow who worked on the Muon g-2 experiment who is working on the PIP-II project.

Videos

[Don Lincoln- Why is the sky blue?](#)

“Why is the sky blue?” is a natural question, asked by many people, children and adults alike. In this video, Fermilab’s Dr. Don Lincoln answers the question and even reveals the surprising fact that it should really be purple.

[Even Bananas 15: What are neutrinos good for?](#)

Neutrinos are powerful tools for better understanding how the universe works and improving our theories, like the famed Standard Model. But what else are neutrinos good for? **Neutrino physicist Kirsty Duffy explains some of the (mostly not-so-practical) ways we might use neutrinos.**

[Mr. Freeze: Fun with liquid nitrogen](#)

Watch highlights of the popular cryogenics show for kids and adults with Fermilab's Mr. Freeze: cool demonstrations with liquid nitrogen to explore the properties and effects of extreme cold.

[Symmetry magazine](#)

Recent issues: <https://www.symmetrymagazine.org/>

- The career of Elaine McCluskey, project manager constructing the future facility for DUNE
- When a theory breaks, you learn how to build it better
- The Standard Model in particle physics and how scientists are searching for new physics beyond it
- In particle physics, "annihilation" is a transformation
- National Medal of Science Recipient Sylvester James "Jim" Gates, Jr.
- Engineers, physicists, computer scientists and more are needed for the second quantum revolution
- Black scientists' important roles in the history of quantum physics and the growing area of specialization, to continue that legacy
- Physicist Elmer Imes' careful work on the theory of quantum mechanics

[In the News](#)

Vice News

Government Scientists to Scan Great Pyramid With Cosmic Rays to Find Secrets

Fermilab's Alan Bross explains a new telescope that would analyze the Great Pyramid with more sensitivity to produce a true tomographic image of such a large structure for the first time. Bross is the lead author of a paper titled, Tomographic Muon Imaging of the Great Pyramid of Giza that published earlier this week.

<https://www.vice.com/en/article/4awp3b/government-scientists-to-scan-great-pyramid-with-cosmic-rays-to-find-secrets>

Live Science

New cosmic-ray scan of the Great Pyramid of Giza could reveal hidden burial chamber

The powerful scan of the Great Pyramid of Giza could finally reveal what's inside its two mysterious voids after 4,500 years.

<https://www.livescience.com/scan-great-pyramid-of-giza>

Newsweek

How Cosmic Rays From Space Could Reveal the Secrets of the Pyramids

<https://www.newsweek.com/how-cosmic-rays-space-reveal-secrets-pyramids-giza-muon-imaging-1688222>

Crain's Chicago Business (Subscription only)

Getting to know a Fermilab physicist once honored by President Obama

<https://www.chicagobusiness.com/takeaway/chicago-profile-fermilab-physicist-anna-grassellino>

CNN – Don Lincoln

An artificial sun briefly blazed under the English countryside. One day, it could change everything

Fermilab's Don Lincoln discusses how nuclear fusion technology has developed into a commercial technology. Fusion could revolutionize how energy is generated across the globe and have significant impacts on the world's future climate

<https://www.cnn.com/2022/02/11/opinions/nuclear-fusion-energy-climate-change-lincoln/index.html>

Black Hills Pioneer

Down and dirty

https://www.bhpioneer.com/local_news/down-and-dirty/article_8409d962-a485-11ec-9e7f-f74563012863.html

Black Hills Pioneer

Angry residents bring more dust concerns to Fermilab officials

https://www.bhpioneer.com/local_news/angry-residents-bring-more-dust-concerns-to-fermilab-officials/article_6c02b31c-9e3f-11ec-8930-c333cc1b4b0f.html

WGN radio news

You can now watch the Fermilab bison 24/7

<https://wgnradio.com/chicagos-afternoon-news/you-can-now-watch-the-fermilab-bison-24-7/>

Innovation News Network

PIP-II: An international effort breaking new ground in particle physics

PIP-II project director Lia Merminga discusses the Fermilab accelerator complex upgrade being done in collaboration with research institutions in India, the UK, Italy, France, and Poland. Read more about the current status of PIP-II project, what it sets out to achieve and the impacts PIP-II will have on the future of particle physics research.

<https://www.innovationnewsnetwork.com/pip-ii-enhancements-fermilab-accelerator-complex/18907/>