

# arXiv sets out on its own

In search of funding and autonomy, the preprint service is launching as a nonprofit.

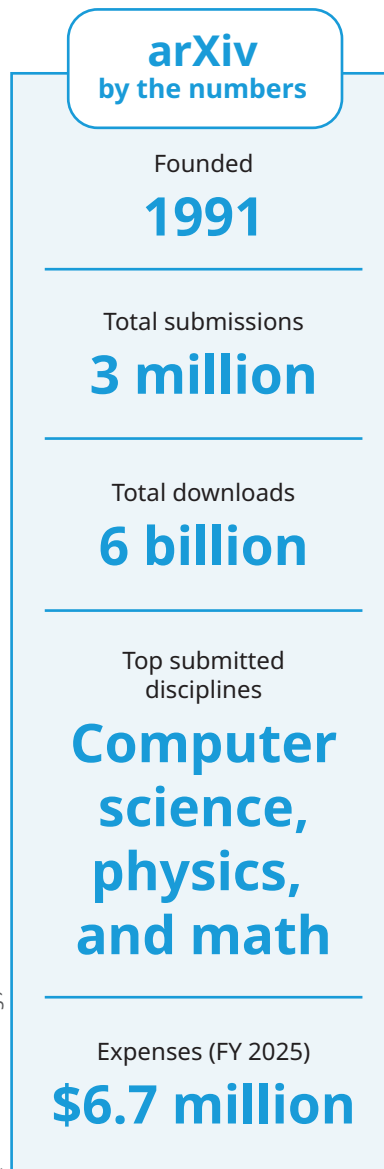
By **Jenessa Duncombe**

**T**he go-to website for preprints in physics, arXiv, will become an independent nonprofit organization starting in July, with the goal of providing long-term stability for the platform. The open-access repository will depart from its longtime home at Cornell University. The search for a CEO and members for a board of directors is underway, and 26 eligible current employees are being offered roles in the new company.

arXiv’s leadership says it has no plans to change the platform’s central mission. “Our assessment was that we were going to open up more support so that we wouldn’t have to turn against the sort of ethos and the mission of arXiv,” says Greg Morrisett, the dean of Cornell Tech, the university’s applied sciences and engineering campus in New York City. Morrisett oversees arXiv at Cornell Tech.

arXiv is a global service for preprints, which are non-peer-reviewed scientific manuscripts, and postprints, which have been accepted by a refereed journal. Researchers post to arXiv to share early results and solicit feedback from their peers. Many also submit the preprints for publication in scholarly journals, a process that can take months. arXiv has no paywall or advertisements, and it does not monetize its content.

The service was in part inspired by an email list started by string theorist Joanne Cohn at the Institute for Advanced Study in Princeton, New Jersey, in 1989. She sent unpublished manuscripts typed in the math software TeX to other string theorists eager to see what their peers were up to. (See the 2021 *PT* article “Joanne Cohn and the email list that led to arXiv.”) Theoretical physicist Paul Ginsparg recommended to Cohn at a conference that she automate the management of the email list, and she told him to give it a try. He did so in 1991 and created a web repository two years later. Ginsparg brought it to Cornell in 2001 when he accepted a professorship at the university. Initially held in the university’s library, arXiv moved to Cornell’s College of Computing and Information Science in 2019 and then to Cornell Tech later that same year.



As the service gained popularity, arXiv’s leadership grew increasingly convinced that Cornell would not be the long-term base of operations, says Morrisett. arXiv grew from around 3000 monthly submissions in 2001 to over 30 000 submissions in March 2026, and its subjects have branched out beyond physics into mathematics, computer science, statistics, and other disciplines. Ginsparg, who serves in various formal advisory roles for arXiv, says that the mission of arXiv to provide a free exchange of ideas among scientists at that scale is not a central part of the mission of a university, which must primarily serve its students, faculty, staff, and alumni.

The decision to become a nonprofit is in part financially motivated. arXiv’s expenses in fiscal year 2025

were about \$6.7 million with a deficit of \$297 000. Cornell began tightening its own budget last year while facing funding cuts and challenges from the Trump administration. The arXiv budget deficits “were being covered by Cornell Tech,” says Morrisett. “And we’re just not going to have the funding to do that going forward.”

arXiv was supposed to live on its own dime through contributions from the Simons Foundation and Schmidt Sciences, research grants from NSF and NASA, and institutional membership fees. Institutional membership fees are not required, but some universities, libraries, research labs, and consortia choose to donate to make the service better for everyone, says Ginsparg.

As the need for additional funding has grown, arXiv’s affiliation with Cornell was inhibiting potential donors from giving money, Morrisett says. “Some organizations, especially in Europe or Asia, might be less happy about sending a check to Cornell University and hoping that it was deployed appropriately for arXiv, versus sending it directly to a nonprofit,” he says.

arXiv has raised enough money to cover all its anticipated funding needs for its first three years as a

nonprofit, says Ivan Oransky, a special adviser on scientific publishing at the Simons Foundation. The foundation has funded arXiv since 2011, and Oransky serves on arXiv’s advisory board. The Simons Foundation and two other foundations have made long-term commitments. (Oransky declined to share the names of the other foundations while details are being finalized.) “The Simons Foundation believes very much in the importance of the arXiv and how critical it is to science and math,” he says. The foundation’s support is committed for at least the next five years, says Oransky.

Going independent could allow for arXiv to further modernize its web services. “Universities are not used to paying the kind of rates that you need for good software engineers, and we’ve had to pull strings to get the talented people we have,” says Morrisett. Engineers at arXiv have been migrating the repository’s 3 million articles to the cloud and converting the legacy Perl code to Python. Ramin Zabih, arXiv’s executive director, says that one new user-facing capability that will be considered in the next few years is personalizations based on subscriber interests. **PT**

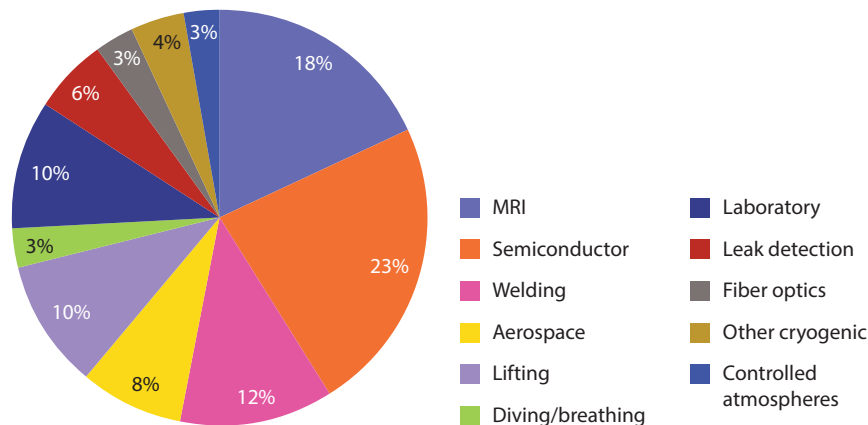
# Helium users brace as shortages begin

Recycling systems are keeping many researchers afloat as prices rise and some suppliers ration helium.

By **Toni Feder**

“We hope we are cushioned this time,” says Jeffrey Filippini, who, as associate head for facilities, oversees the helium liquefier for the physics department at the University of Illinois Urbana-Champaign. His department was lucky to accept a delivery of helium in February, just before the US and Israel attacked Iran. Now, with liquefied natural gas plants shut down in Qatar and the Strait of Hormuz nearly unpassable as of press time, it may be a while before helium is again predictably available.

Qatar supplies about 30% of the global helium market. The other main sources are Algeria, Russia, Ukraine, and the US. Helium is obtained primarily as a byproduct



▲ Worldwide helium consumption by usage area for 2025. Semiconductor manufacturing has surpassed medical MRI as the largest consumer of helium. Low-temperature physics, chemistry, biomedical, and other research represented about 10% of the total use. (Chart adapted from Kornbluth Helium Consulting.)

from natural gas processing. “A significant amount of the world’s helium comes from places that are not geopolitically stable, which makes it

susceptible to ‘black swan events,’” says helium market consultant Phil Kornbluth. “The war in the Middle East is a classic example.” (For a