

News in focus



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Dozens of conferences have been cancelled around the world.

A YEAR WITHOUT CONFERENCES? HOW THE CORONAVIRUS PANDEMIC COULD CHANGE RESEARCH

As scientific meetings are cancelled worldwide, researchers are rethinking how they network – a move that some say is long overdue.

By **Giuliana Viglione**

This is shaping up to be an unusual year – it might even be the year scientists stop going to conferences. As the coronavirus pandemic marches around the world, leading to unprecedented measures to stop the virus's spread, the number of scientific conferences being cancelled is rising and researchers are scrambling to find alternative ways to share their work and interact with collaborators. Some of these discussions are even pushing researchers to rethink the concept of meetings entirely.

“At some point, we need to be having conversations about ‘What is the point of a conference now?’” says Sarah Hörst, a planetary scientist at Johns Hopkins University in Baltimore, Maryland. Although cultural changes happen slowly in the scientific world, she says, “I’m hoping this will at least force some real conversation.”

The shift could help to address long-standing calls to make meetings more accessible to a wider set of researchers, for instance those from resource-poor universities and those with disabilities, say some academics. And many researchers already complain about the

relentless expectation of travel and worry about the carbon footprints they create by taking international flights.

Infection risk

Dozens of conferences have been called off as the coronavirus outbreak worsens – including the spring meeting of the American Chemical Society in Philadelphia, Pennsylvania, which was cancelled last week amid mounting pressure from people concerned about attending. The necessity for such cancellations is clear: any attendees who are infected risk passing the virus on to colleagues around the world.

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A meeting of the biotechnology firm Biogen in Boston, Massachusetts, on 26 February was linked to 70 cases of COVID-19, the disease caused by the coronavirus, in Massachusetts alone. Public gatherings are being discouraged or banned worldwide in a bid to halt the spread of the virus.

Many organizers and participants have turned to online platforms as a way to share work, creating virtual conferences that mimic at least some parts of a physical meeting. These could be the beginning of a shift to more accessible conferences, says Ezequiel Ferrero, a physicist at Bariloche Atomic Centre in San Carlos de Bariloche, Argentina. Prohibitive costs had meant that Ferrero was unable to travel to Denver, Colorado, to attend the American Physical Society (APS) March Meeting earlier this month. But that meeting, for which 11,000 people had registered, was abruptly cancelled just two days before it was due to begin on 2 March.

Some APS divisions had already begun discussing ways to build a virtual community, says Ferrero. And many of them rapidly set up platforms to hold virtual sessions for the meeting, inviting their speakers to present by webcam or to upload their presentations to online repositories. Researchers who hadn't been in a position to fly to Denver found themselves able to participate from afar in what became the Virtual APS March Meeting. "I was not attending and then, suddenly, I was," says Ferrero.

"If anything, the talk quality was easier to see," says Karen Daniels, a physicist at North Carolina State University in Raleigh. "Nobody's head was blocking your way." Daniels, who spearheaded the effort to move the soft-matter-physics talks online, says that after some minor hiccups in reformatting the meeting, everything went very smoothly. One of the sessions she organized had about 100 virtual attendees.

Inclusivity advantage

But these aren't the only benefits. "There's a lot of reasons that we should have virtual meetings," Daniels says. Meeting spaces that are inaccessible to some disabled scientists, health considerations, a lack of access to childcare and travel restrictions can all end up alienating potential attendees from physical conferences. "This may be the thing that convinces us" to give virtual meetings a try, Daniels says.

All these factors mean there's a "large appetite" for alternative conference set-ups, says Divya Persaud, a planetary scientist at University College London (UCL). She and Eleanor Armstrong, a UCL sociologist of space science, have a grant from their university to hold an experimental virtual conference, called Space Science in Context, in May. The conference aims to improve accessibility, cut down on researchers' carbon footprints and reach a wider audience than a conventional meeting could. Participants will watch recorded talks ahead of time and then join in online

conversations on the day of the conference.

Persaud also points out that many of the adjustments that conferences are making – such as introducing virtual participation – are accommodations for which disability activists have been clamouring for years, and it's a shame that it took a global health crisis to make them happen. "It's a bittersweet thing," she says.

"Institutional feet have been dragged" in making meetings more inclusive, agrees Juniper Simonis, a quantitative ecologist in Portland, Oregon, who is an activist and advocate for disabled scientists. They point out that legal frameworks such as the 1990 Americans with Disabilities Act are already supposed to ensure reasonable accommodations for

those who need them. "In terms of hearing and responding to those requests," Simonis says, "conferences need to do better."

Still, as conference organizers are finding out, making these changes – especially on short notice – is no easy feat. The European Geophysical Union (EGU) general assembly is scheduled for 3–8 May in Vienna, and session leaders are making contingency plans in case it is cancelled. "It would be very hard to recreate the experience of a big meeting like EGU online," says Joanne Williams, a scientist who studies sea-level changes at the UK National Oceanography Centre in Liverpool. "But I want to make best use of the work we've put in already."

CHINA'S MARS MISSION ON TRACK DESPITE CORONAVIRUS OUTBREAK

The mission team has had to adjust how it works, but says the launch can go ahead.

By Smriti Mallapaty

China's first journey to Mars is one of the most anticipated space missions of the year. But with parts of the country in some form of lockdown because of the coronavirus, the mission teams have had to find creative ways to continue their work.

Researchers involved in the mission remain tight-lipped about its key aspects, but several reports from Chinese state media say that the outbreak will not affect the July launch – the only window for another two years.

"The launch is so important politically that they will make it happen," says Raymond Arvidson, a planetary geologist at Washington University in St. Louis, Missouri, who has been



China's Long March 5 rocket will carry its Mars probe into space.