

FIRST MAJOR VIRTUAL PHYSICS MEETING SEES RECORD ATTENDANCE

The American Physical Society held its massive April Meeting online because of the coronavirus.

By Davide Castelvecchi

Despite some last-minute scrambling, the first major physics conference to be held in cyberspace was a success, according to many attendees.

The April Meeting of the American Physical Society (APS) was originally scheduled to take place on 18–21 April in Washington DC. But when the coronavirus pandemic made a physical gathering impossible, the organizers decided to hold the entire event online, and made registration free and open to everyone.

Whereas around 1,600–1,800 people typically attend the April Meeting, 7,267 registered this time, says Hunter Clemens, the APS director of meetings. And many participants say they were satisfied. “The virtual APS meeting has been by far the best online meeting I have attended,” says Niels Warburton, an astrophysicist at University College Dublin.

In early March, the APS was one of the first large organizations outside of China – where the first outbreak of the virus was reported – to bear the brunt of the pandemic. The society decided to cancel its much larger March Meeting in Denver, Colorado, just 36 hours before it was due to start. Some of that meeting took place anyway: would-be attendees quickly organized unofficial versions of the scheduled sessions online.

Inspired in part by that surge of enthusiasm, the APS opted to hold its next major meeting online, rather than cancelling or postponing it. The society hired a company to provide the necessary online infrastructure and technological support. During the 4-day conference, it handled 175 live sessions, running up to 15 in parallel. The online platform for talks provided a chat window that appeared alongside the speaker’s video, allowing attendees to exchange comments or links to relevant papers in real time. The APS also made an effort to recreate the social experience of a conference by organizing virtual meet-ups, and some delegates set up their own discussions using messaging tools such as Slack.

Although a virtual meeting is not the real thing, it was still a good idea given the circumstances, says Xiaochao Zheng, a nuclear and particle physicist at the University of Virginia in Charlottesville. “Many other conferences are cancelled, which are big disappointments

for people who had planned to attend,” she says. Lindley Winslow, an experimental physicist at the Massachusetts Institute of Technology in Cambridge, agrees. “In my field of neutrinos and dark matter, we have to do a lot of our meetings virtually. It works, but it is not as efficient as having everyone in the same room,” she says. Still, she adds, because she had a newborn baby at home, “It was a bit of relief to not have to figure out how to travel.”

The virtual meeting had some other advantages compared with a physical one. Live talks could be paused or rewound, a useful feature for those who missed details or wanted to spend more time pondering a crucial slide.

And watching talks from home eased a bit of the pressure of attending a large conference that would require dashing from one session to another across a vast convention centre. “I’m kinda loving the minimal FOMO [fear of missing out] when you’re just feeling tired/introverted/overwhelmed that comes along with everyone being virtual,” tweeted Claire Lee, a particle physicist at the Fermi National Accelerator Laboratory outside Chicago, Illinois.

The last-minute transition to cyberspace was not completely smooth, in part because it came long after the conference programme had been finalized. Although most speakers

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agreed to present their talks online, some did not. And some sessions, including many of the talks contributed by students, had to be pre-recorded to be watched ‘on demand’. This created confusion among participants, some of whom found out too late that they had to upload their talk ahead of time. The APS is still allowing presenters to upload their videos after the meeting, Clemens says.

Most attendees contacted by *Nature* found the conference useful. “My quick take-away is that it was more successful than I thought it was going to be,” says Kelly Backes, a graduate student at Yale University in New Haven, Connecticut. “I got a lot more out of it than I expected.”

Q&A

Sweden’s coronavirus strategist



Sweden’s relaxed approach to containing the coronavirus — largely using voluntary measures — has drawn sharp criticism, including from high-profile scientists. The nation’s COVID-19 death rate is higher than that of its neighbours, which have imposed lockdowns, and it has seen large outbreaks in care homes. The strategy’s architect is epidemiologist Anders Tegnell at Sweden’s Public Health Agency, which advises the government. Tegnell spoke to *Nature* about the approach.

Can you explain Sweden’s strategy?

As in many other countries, we aim to slow down the spread — otherwise the health-care system is at risk of collapse. This is not a disease that can be eradicated, at least until a working vaccine is made. The Swedish laws on communicable diseases are mostly based on individual responsibility. Quarantine can be contemplated for people or small areas, but we cannot lock down a region.

What evidence is the approach based on?

It is difficult to talk about the scientific basis of a strategy with this type of disease, because we do not know much about it and we are learning as we go. Lockdown, closing borders — nothing has a historical scientific basis, in my view. As a society, we are more into nudging: continuously reminding people to use measures. Closing down everything would be counterproductive.

The strategy has been criticized for being too relaxed. What is your response?

The public-health agency has released detailed regional modelling that comes to less-pessimistic conclusions than other researchers’ models in terms of hospitalizations and deaths. We will see a lot more cases in the next few weeks, but that is just like any other country. I am confident schools will stay open. We underestimated the issues at care homes; we should have controlled this more thoroughly.

Interview by Marta Paterlini

This interview has been edited for length and clarity.