

# Conference conundrum

Does the popularity of a recent online photonics conference signify a growing appetite for a change in scientific interaction?

Should researchers reduce their conference travel, for environmental, personal and financial reasons? If so, which alternative approaches would be effective and embraced by the community? Are there simply too many conferences? Is bigger really better and can online photonics meetings be truly successful? Here we consider such questions, and we welcome your feedback on the future role and shape of conferences for scientific exchange.

In January, Photonics Online Meetup (POM), a one-day virtual conference hosted by the University of Southern California (USC), ran smoothly and each speaker had well over 1,000 viewers 'at' their presentation, as discussed in a [Meeting Report](#) in this issue.

The success of POM clearly indicates that well-organized online conferences can play a key role in the dissemination of photonics research, while simultaneously reducing travel-related environmental impact, costs and wasted time.

Conventional conferences will remain important for optics, as true face-to-face interactions and chance meetings are considered invaluable, but do we need so many? A large number of photonics meetings now overlap in topics. A nanophotonics researcher cannot realistically attend all available conferences that cover plasmonics and metamaterials meetings, nor should they. The personal, financial, time and environmental burdens are too significant. And, let's be honest, the list of presenters (along with their slides) can be repetitious, particularly for plenary and keynote sessions.

This conference overlap is in part due to the happy success of some of our sub-communities. At least, this is the opinion of P. James Schuck (University of Columbia) who feels that many meetings started as smaller, more specialized symposia, and then grew, resulting in many overlapping in topics. Reducing an event's scope and keeping it tightly defined so that researchers don't feel like they have to be at each meeting that covers their field is an option according to Schuck who points out that "the only real way to deal with the huge parallel-session conferences is to pick one or two symposia to concentrate on (thus not getting the benefit of the larger population)." Arguably, smaller meetings also have better opportunities for early-



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career researchers to mix more intimately with well-established leaders.

While still a firm believer in the value of face-to-face discussions, Schuck made clear that almost everyone in his department is interested in cutting back on travel. This brings us back to the role of online conferences. Schuck does also question if people pay attention to online seminars in the same way they do to in-person presentations, but admits that sometimes he feels like "half the audience at a conference is checking e-mail anyway."

Some researchers are already changing how they disseminate their research. Miles Padgett (University of Glasgow) would like to see more online photonics meetings (and more small in-person workshops) so that he can spend more of his time in the laboratory.

When invited to talk in China recently, Padgett declined to fly for time and environmental reasons, but offered to present using Skype; the hosts agreed.

Initially worried that the Skype connection may have issues, Padgett prepared subtitles of what he was planning to say for his PowerPoint slides. Later, he was told that this significantly aided the comprehension of the talk by the non-native English speaking audience.

"Indeed it [subtitling] is a tool I shall use in the future, irrespective of whether I am speaking live [in person] or virtually," Padgett told *Nature Photonics*.

Hunter Clemens (Director of Meetings, American Physical Society (APS)) confirmed that the APS is considering

virtual workshops and that more information will be forthcoming following the APS Council Meeting in April. The Society of Photographic Instrumentation Engineers (SPIE) and the Optical Society of America (OSA) already make some technical conference recordings available online. Elizabeth Rogan (Chief Executive Officer, OSA) noted that the OSA offers online webinars and live streaming of plenaries. Rogan told *Nature Photonics* that "the current health crisis [coronavirus] will push all science and engineering societies that serve a global audience to expand their portfolio of virtual services."

Although large conferences do have their place, as some enable excellent networking opportunities and student events, it might be time to reset the balance, with more of a mixture of large and smaller meetings, both in person and online. Perhaps the timeliest argument for more online events, as noted by Rogan, is furnished by the present impact of coronavirus on global travel.

The next POM conference is planned for 2021. Meanwhile, students considering a PhD may attend another virtual meeting hosted by USC on 8 April 2020 (starting 9 am Pacific daylight time; <https://armani.usc.edu/phd-workshop/>). The PhD Workshop will bring together faculty from several universities, recent PhD graduates and industry members in a five-session online event. Registration for the event is free. □

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