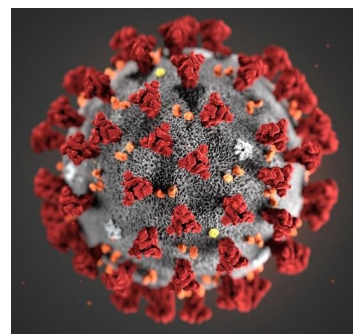# HSF WLCG Virtual Workshop Experience

Graeme A Stewart
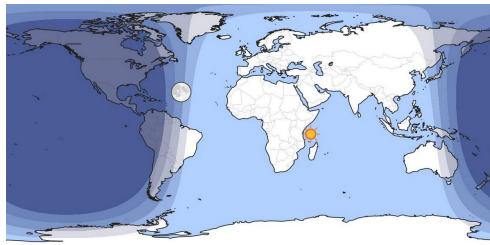
IRIS HEP Virtual Meetings Blueprints Workshop, 2021-05-05

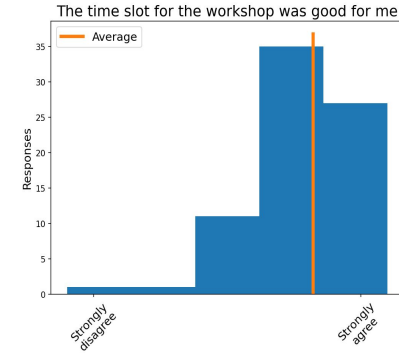# Collaboration in times of COVID-19

- As we know the health crisis provoked by the COVID-19 pandemic has severely affected our work in HEP
  - In particular, as a global community, we did a significant amount of travel to workshops and conferences to meet and discuss with colleagues - this basically ended in March 2020
- This meant that a large amount of our work shifted to purely online
  - Of course we have had online meetings in HEP for a long time and were even early innovators in the technology
  - However, this was a new phase, where online interaction became the primary means of communication, affecting everything from corridor chats, coffee meetings to major conferences
- Here I will attempt to summarise what we (I) learned about online events and how they can be made as effective as possible
  - Mostly experience from HSF/WLCG Workshops in May and November 2020, plus a forward look at choices we have made for vCHEP2021
  - Caveat Emptor: though discussed with many colleagues, these are definitely my own opinions!
  - Some survey results shown are from both workshops (see feedback talks from May, Nov)
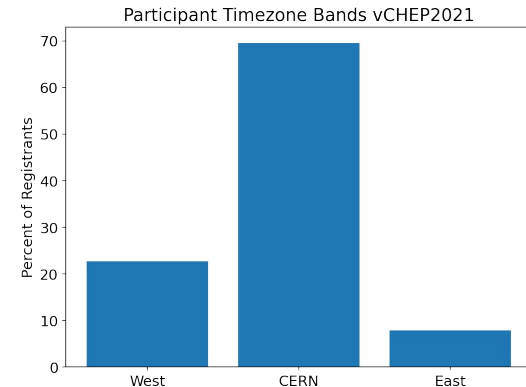 - See also EP Newsletter Article covering much of this material

Scheduling Online Conferences and Workshops

The time slot for the workshop was good for me

May HSF-WLCG workshop ran 16-18h, but beware selection bias when asking questions like this in your survey!

- The world is round, and that's a fact!
  - This makes scheduling online events hard, as participants remain in their local timezone
- For HEP, given the centres of gravity in EU and US the 'golden time' is European afternoon, US morning
  - E.g. 16h-18h CERN time
  - This is still pretty early for the North American Pacific coast, but plausible
  - It's really terrible for Asia-Pacific (16h CERN -> 23h Tokyo, 1h Sydney)
- For Asia-Pacific friendly times, try starting at 8h CERN time
  - 15h Tokyo, 17h Sydney
  - Well, actually for vCHEP we will start at 9h
- So far I didn't see anyone try US afternoon, Asia-Pacific mornings
  - The Pacific is big and 17h New York is still 5h Tokyo

Participant Timezone Bands vCHEP2021

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Technology Choices

- Zoom has become the de-facto standard
  - With good reason, as it is stable, scalable and offers good features
    - Raise hand feature is real winner for organised discussion (cf. Vidyo)
  - We hosted 500 people for PyHEP2020 without problems
  - ICHEP used the seminar mode for their plenary sessions, with even more people (1000+)
  - In the first HSF/WLCG workshop we had quite a few problems with people learning the platform
    - Usually failure to share the screen
    - But now almost everyone knows how to do this
      - But do remember it's going to take you 60s even for smooth handovers
- Bluejeans seems a credible alternative (used at JLab, ANL)
- Discord seems to be popular for tutorials
  - Platform is very nicely integrated, with video streams, multiple (persistent) chat channels, breakout rooms, etc.
  - Anecdotally said to work better on low bandwidth links

Chat is a winner!

Monday

Code Portability (Charles Leggett) [Participants: ~175]

How much tension is there between portability and efficient code? To what extent can toolchains and frameworks help and to what extent will dedicated code be needed? [Roel Aaij, Nikhef]

A: There is a lot of tension between them. Code portability is more important than efficient code: the goal is to get access to HPC systems and we'll not get it if we cannot use accelerators. As our code doesn't map well onto GPUs, hard to eke out last 5% of performance.

Downside of Google Docs - who said that...?

- Humans can only effectively process one stream of audio/video at a time
- Chat is a much better multiplexer of communication
- It also allows questions, answers and discussions *before* and *after* presentations
  - This also means that people from other timezones, where the live sessions are inconvenient, can be involved
- Chat attached to the video conferencing system is generally disfavoured
  - Designed to be *ephemeral*, people can't see previous messages, no good record of discussion
  - Use only for immediate issues with the live sessions
- Better options
  - Google Docs (aka Livenotes)
    - Very freeform, so works better when organisers structure the document properly in advance
  - Mattermost/Slack
    - Impose more structure on the conversation, easier to follow, but can be limiting (only a single depth of threading)
  - For vCHEP we will use *Mattermost* as in a large meeting imposing structure becomes optimal
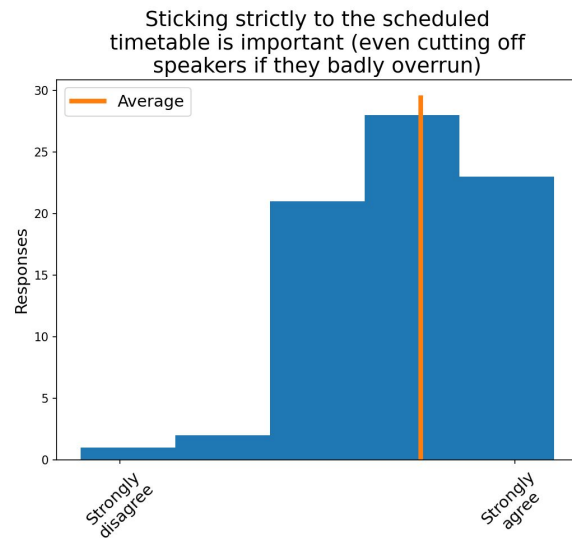   - We have different channels for different parallel sessions

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Upload Material in Advance

- To facilitate the discussion let people see slides in advance
  - We tried for 1 week for the HSF-WLCG workshop (and failed), but 24 hours actually seemed to be enough
  - And have the notebook/chat available before the live session, to start to gather comments and questions
  - Most people (in both workshops) did look at the slides in advance (and we also got some comments)

It was useful to have material available in advance

Material for the workshop should be available…
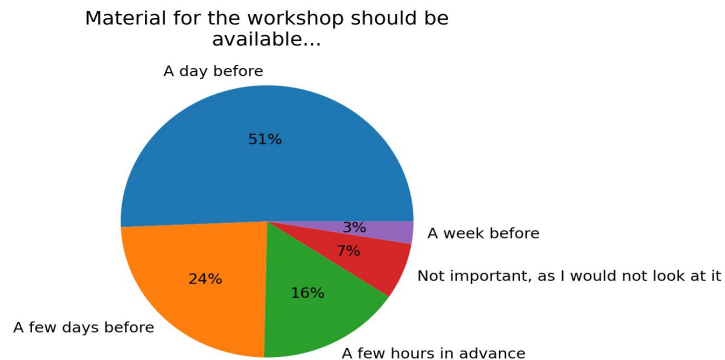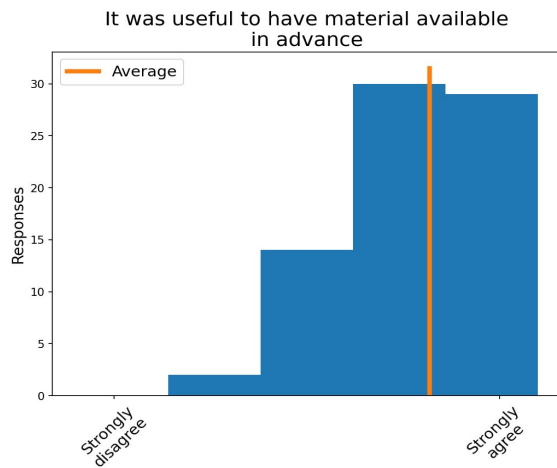
Stick to Time (and this time I mean it!)

- For online workshops remember that
  - It's not a good time for everyone
  - People will interleave the workshop with other activities (even if told not to)
- So having speakers stick to their timeslots is even more important than in f2f meeting
- Make sure all the speakers are well practiced in the technology
  - This is getting better
  - Have a pre-meeting debug session
- And that you have a good way to tell people when their time is done
  - Nice if this can be visually, but this feature is "developing"

Sticking strictly to the scheduled timetable is important (even cutting off speakers if they badly overrun)

Support the Chair

- Have at least a co-chair who is looking after the chat or live notes and can signal to the chair when they may have missed something
- In general, we have had a lot of success when the whole organising team can use an out-of-band communication means
  - We absolutely missed this on the first day of our May workshop
  - After Day 1 we had a Skype chat for the organisers and it helped a lot
    - Yet another technology choice, right? Try and not have too many places for people to look, e.g., for vCHEP we have a private mattermost chat for session chairs
- Thankfully the sport of Zoom Bombing does not seem to affect too much our community but it does happen
  - **Know what to do if a meeting is disrupted - have a playbook**
  - For vCHEP we have a 1st Officer who is trained to take care of this:
    - Suspend Participant Activities, Enable Waiting Room, Throw Out Disruptive People, Participants can unmute only when invited, ...

Give me a break!

- Concentrating on an online event is tiring
  - Make sure that breaks are scheduled relatively often
  - Unfortunately we don't yet have the technology to beam people coffee and a biscuit
- We ran the May HSF-WLCG workshop in 2 hour blocks each day, so we didn't have breaks
  - Feedback from the participants was that this is really about the reasonable limit
- You can run nice little activities for people during a break
  - Little surveys are kind of neat (What's your favourite Matplotlib colour palette? Which compiler do you like best?)

*PyHEP used Slido for this, yet another option*

Let's have a quick chat… (hmm, this isn't working yet)

- Major missing piece in online events is informal social interactions
  - This is a huge part of the perceived value of workshops and conferences
  - It's *extremely hard* to replicate online
    - For smaller events just keeping the video/audio channel open during the break can work
    - Larger events have tried some virtual social events
      - GatherTown, WonderMe, Mibo all can give more interactive feel
    - Though not without merit, none of these are much like having a beer or a coffee with colleagues
    - We may just need to have the next leap in technology to get these to work
- Neutrino 2020 hosted a <u>VR platform for their poster sessions</u>
  - I did not attend, but people were impressed that is could work at All, but the technology is still immature
  - Maybe we all need to budget for VR headsets?
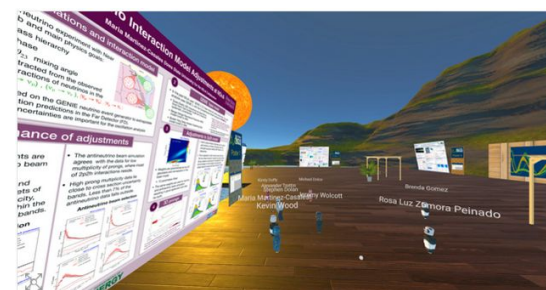
Other Good Things about Virtual Meetings

- Virtual meetings are much lower cost to join
    - We have had a positive experience of making the meeting accessible to colleagues who simply would not have been able to travel to a physical meeting (usually due to budget constraints)
    - ICHEP - more than 3000; PyHEP - 1000
- Reduces the amount of physical travel that people do
    - Which was way beyond the sustainable level for the future of the planet
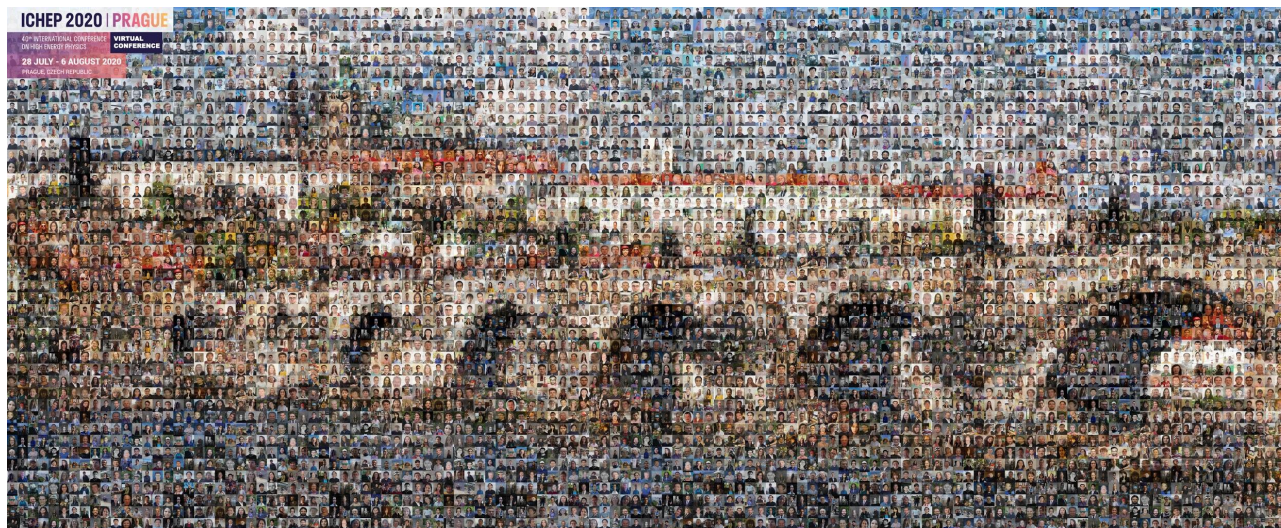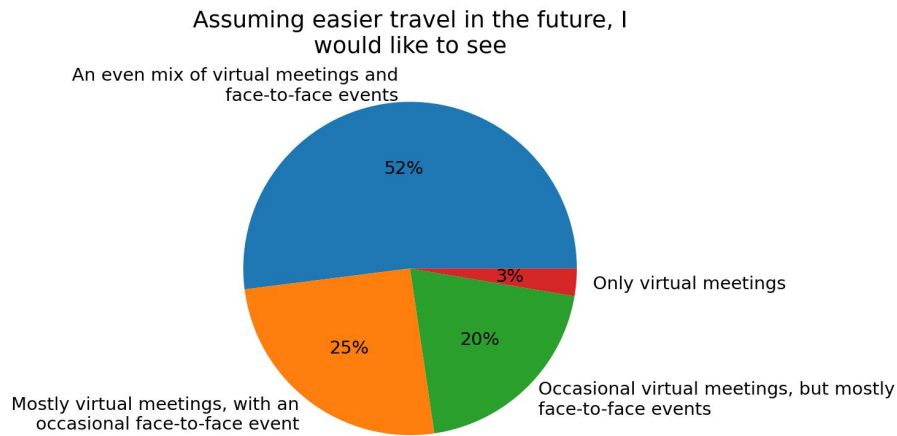

Take a vConference Photo!

Summary

- The COVID-19 health pandemic imposed the need to move conferences and workshops to online
  - We are extremely fortunate that with mature video conferencing and widely available high-speed internet this has been possible
- Though the experience of events in 2020 the community has learned how to run these events more successfully
  - Actually, we were pretty quick at doing this
  - Helped a lot by the forbearance of the whole community
- Informal social interactions remains the big missing piece
  - There's nothing quite yet that replicates meeting someone in the coffee queue and starting a "Hey, what about…" conversation
  - In part this could be a technology gap that VR might fill in the future

Last Word…

Assuming easier travel in the future, I would like to see

An even mix of virtual meetings and face-to-face events

52%

3% — Only virtual meetings

25%

20%

Mostly virtual meetings, with an occasional face-to-face event

Occasional virtual meetings, but mostly face-to-face events

- The high level of support for a further virtual events shows these are working well
- But people also look forward to some face-to-face meetings in the future