https://indico.cern.ch/event/856696/

Giovanni Marchiori (APC) - Roberto Salerno (LLR)
on behalf of the LHCP2020 steering committee

Large Hadron Collider Physics (LHCP) Conference Series

Successful fusion of two international conference series

Physics at Large Hadron Collider

Hadron Collider Physics Symposium

Review of the latest experimental and theoretical results from the LHC physics program

Unique international venue for lively scientific discussions focused on LHC physics, detector technology, upgrades, and future physics opportunities

Typical attendance: 300-400, > 25% students

Emphasis on engaging early career scientists and the public

Plenary talks: Young Scientist Forum, Outreach efforts @ LHC

Public outreach: each edition features a public event in the local language

Strong encouragement for experiments to select a diverse and outstanding set of junior scientists to give talks and present posters

Venue rotation

LHCP rotates through three regions in a four-year cycle

Europe → Americas → Europe → Asia&Oceania

Competitive bidding process (typically 3-4 very strong bids each year)

Venue for LHCP(N) is selected at the IAC meeting during LHCP(N –2)
eg: during LHCP 2018, the IAC selected Paris to host LHCP 2020

Past venues

LHCP 2013 – Barcelona, Spain

LHCP 2014 – New York, USA

LHCP 2015 – St. Petersburg, Russia

LHCP 2016 – Lund, Sweden

LHCP 2017 – Shanghai, China

LHCP 2018 – Bologna, Italy

LHCP 2019 – Puebla, Mexico

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LHCP 2019 – Puebla, Mexico

LHCP 2020 – Originally scheduled to held in Paris, France

With the very strong encouragement of the LHC collaborations and with technical support from CERN/IT we decided to go online.

Very challenging task: **< 2 months** for planning the online conference!

Online format

"No fee" fully online conference

Decided to stick to a one-week conference

    Talks scheduled during 12:30-18:30 CEST
    Up to 7 parallel sessions
    Two poster sessions
    With two 15' breaks between sessions

Plenaries Zoom webinars + webcast
Parallels Zoom webinars
Posters with pre-recorded 3' videos and Zoom rooms for discussion
Discord channels for informal chats/discussion...
    Provided live captioning of some talks and recordings of all talks with auto transcription

Code of conduct and conduct advisors

Code of conduct

The policy of the LHCP2020 conference is that all participants should enjoy a comfortable experience, and that they will treat each other with respect at all times and behave professionally.

Participants of the LHCP2020 conference are required to comply with the CERN code of conduct: http://legal.web.cern.ch/ethics/cern-code-conduct.

In case of bad behaviour, including personal harassment, the conference organisers may, after due consideration, take such action they deem appropriate, including warning or expulsion from the conference. If you feel that you have suffered from harassment while attending this conference, please contact:

- Giovanni Marchiori: giovanni.marchiori@cern.ch
- Zaida Conesa del Valle: zaida.conesa.del.valle@cern.ch

This applies both to the live discussions in the zoom webinars as well as in the discord chat.
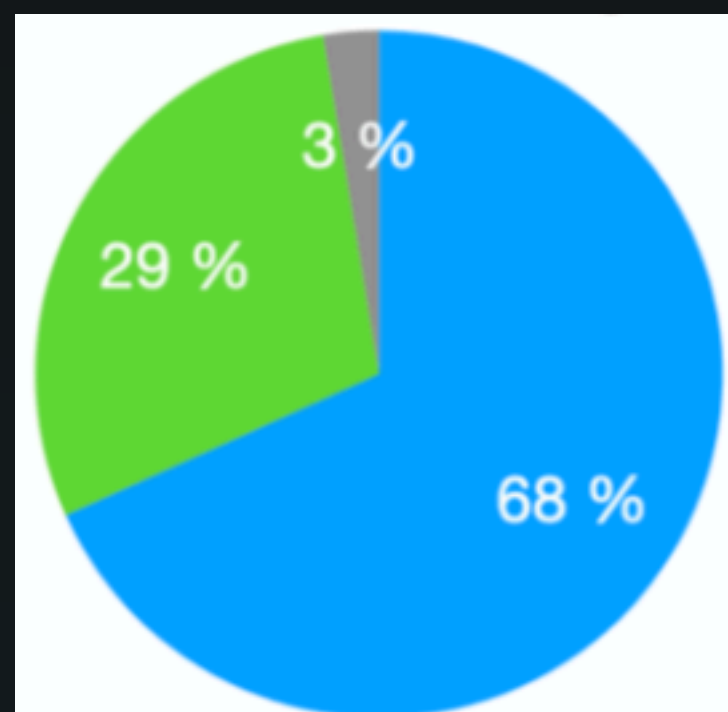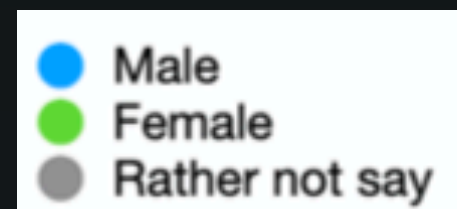
Attendance
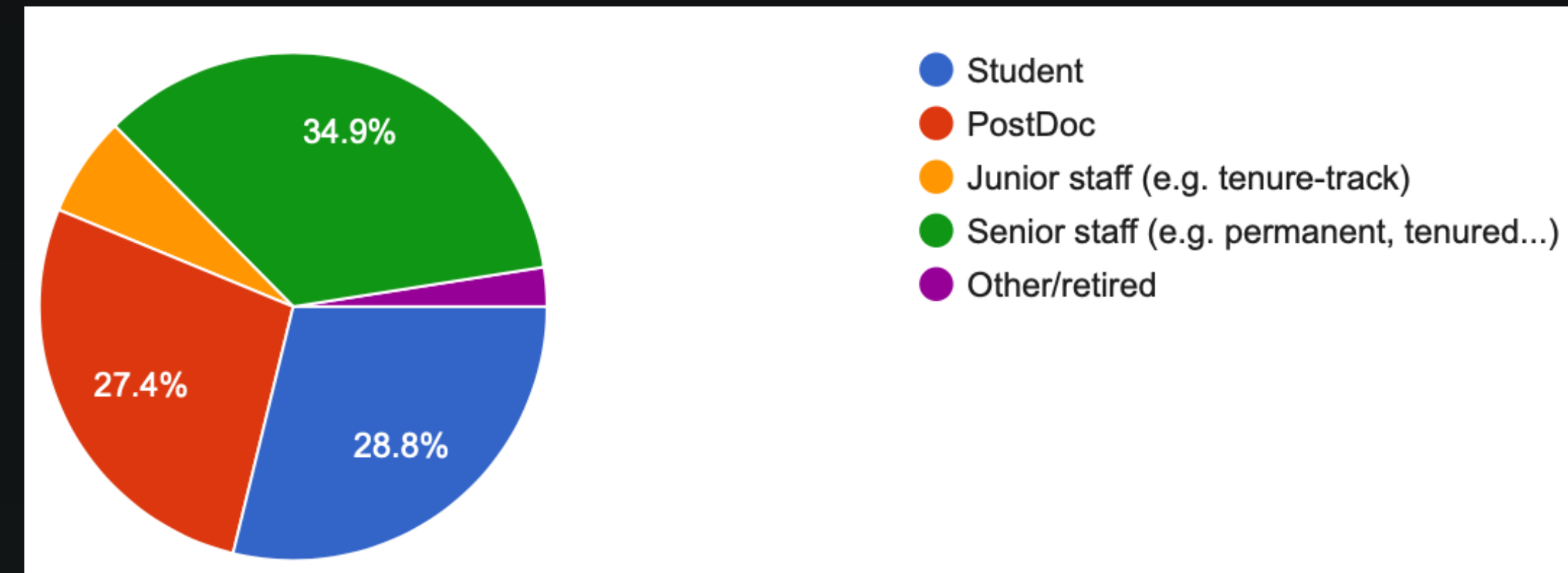
Initially expected attendance: 350-400
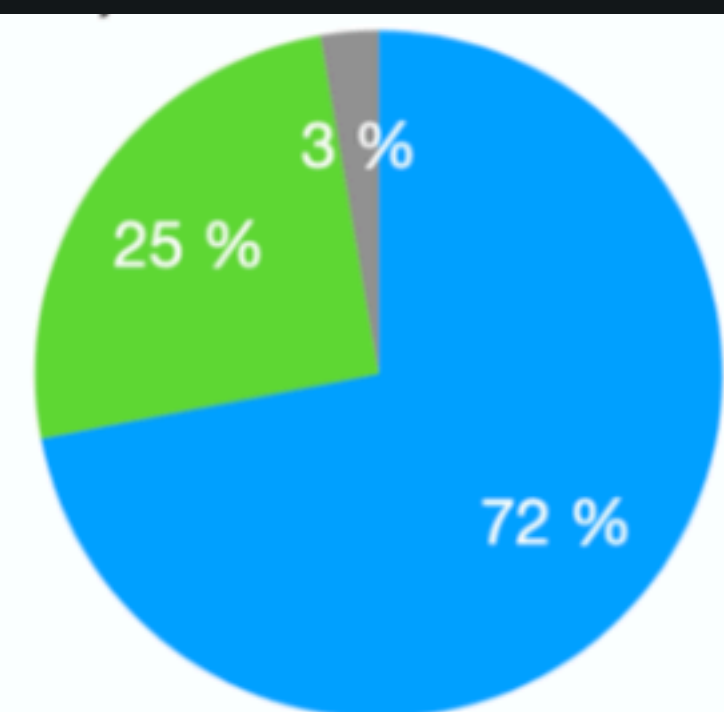# of online LHCP 2020 registrants: 1301

Peak attendance: ZOOM: 699 + Webcast: 377
Peak parallel sessions: single session: 151, all sessions: ~500
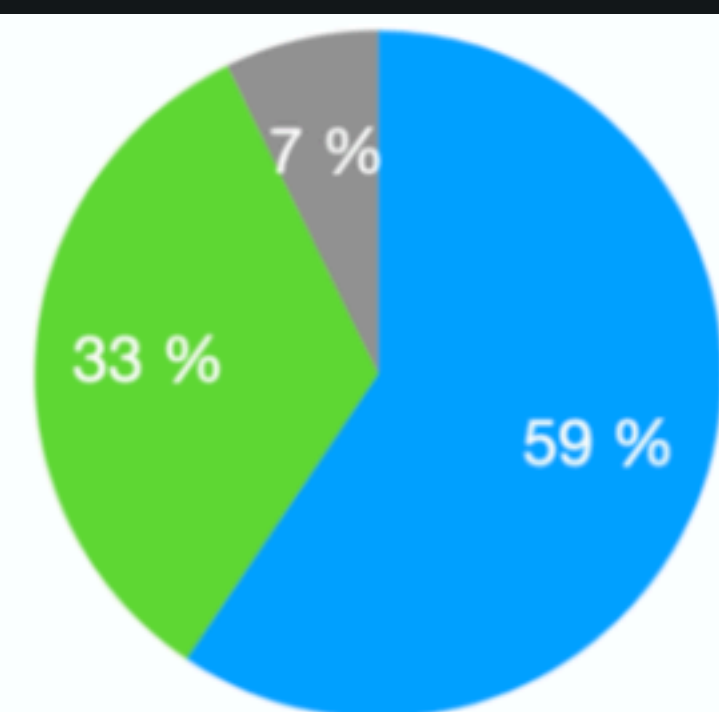
Demographics informations

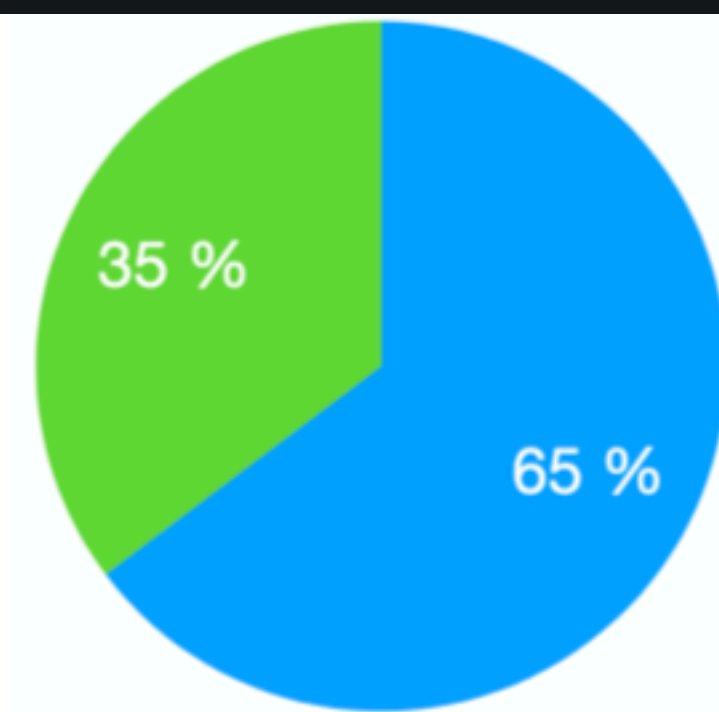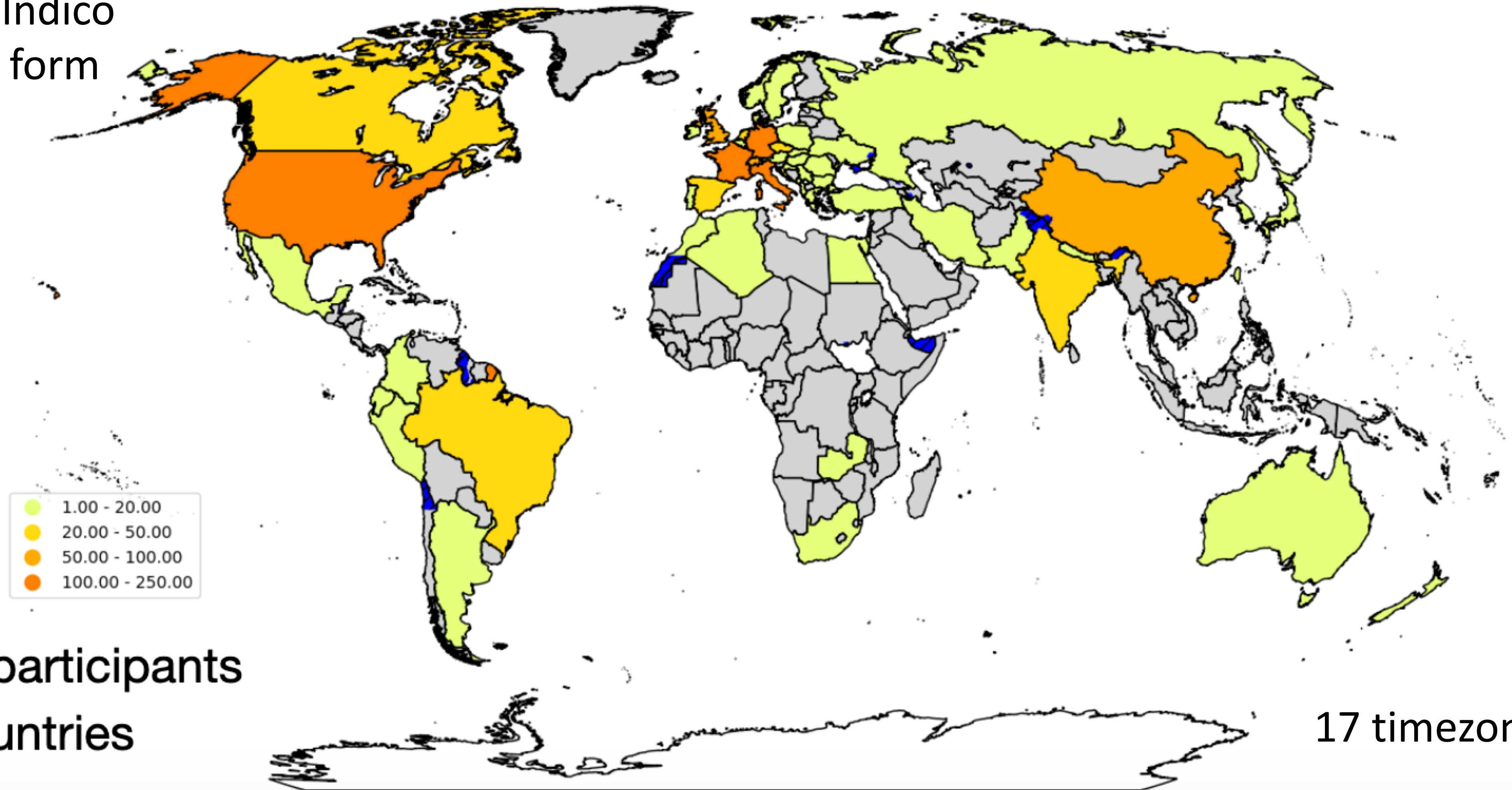| Participants (1301 persons) | Speakers (257 persons) | Conveners (75 persons) | Program committee (17 persons) | Steering committee (17 persons) | IAC (27 persons) |
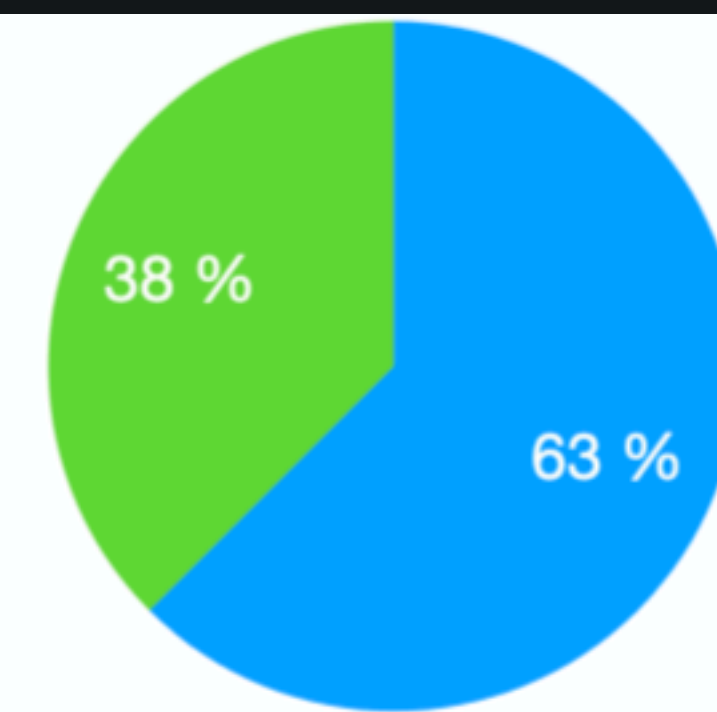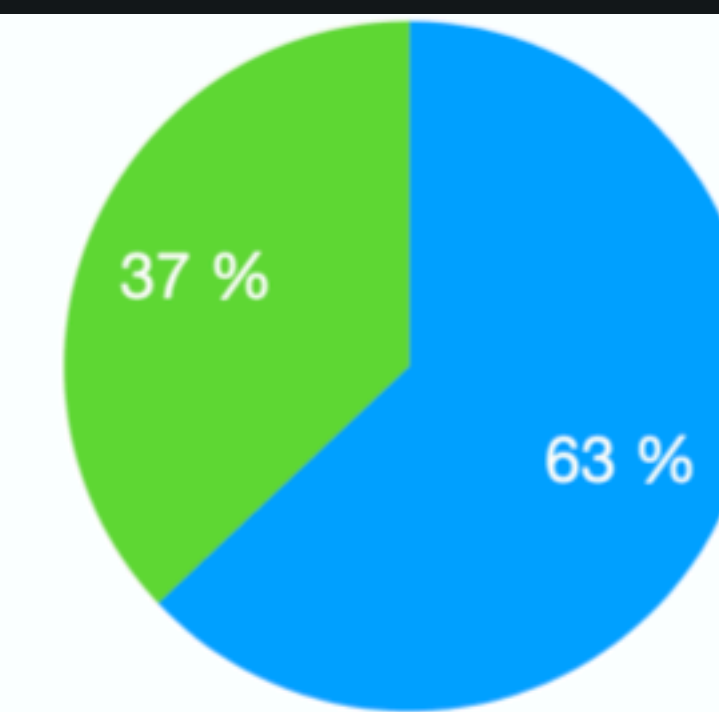
LHCP committees

Geographical distribution of participants

Based on institute
declared in Indico
registration form

Legend:
- 1.00 - 20.00
- 20.00 - 50.00
- 50.00 - 100.00
- 100.00 - 250.00

1301 participants
56 countries

17 timezones spanned

9

Post-conference survey

All the participants were asked to answer a survey

Roles

Participation

In addition to your participation, did you have any other role(s) in the conference?

361 responses

Role	Count
Speaker	99 (27.4%)
Poster presenter	25 (6.9%)
Session convener	26 (7.2%)
LHCP Committee member	19 (5.3%)
No	202 (56%)
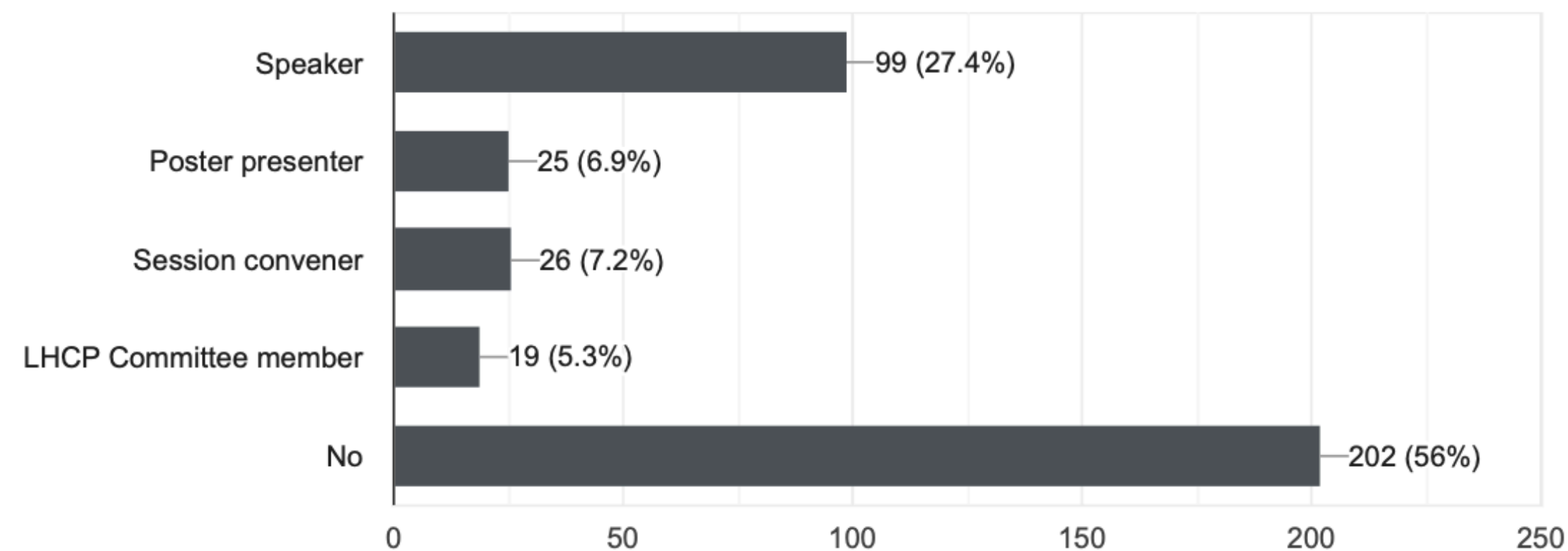
Which sessions did you attend?

361 responses

Session	Count
Plenary	290 (80.3%)
Parallel	300 (83.1%)
Poster	61 (16.9%)
None	7 (1.9%)
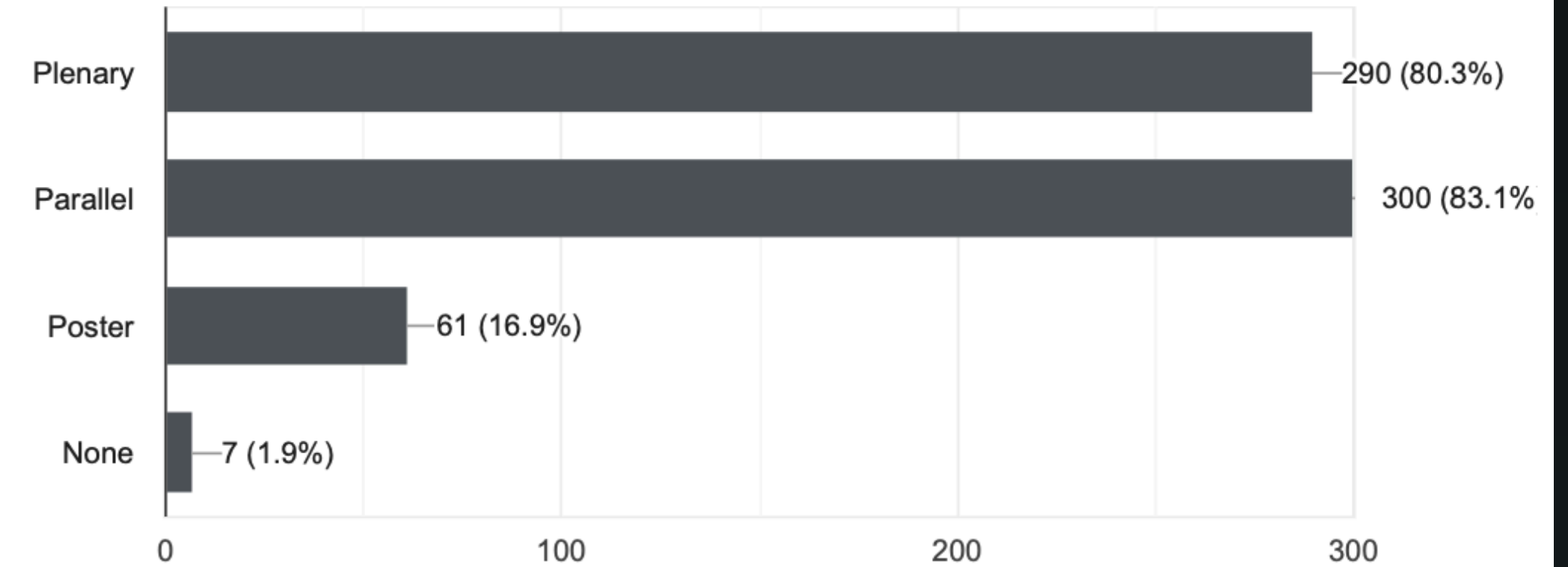
Time format and possible alternatives

Post-conference survey results

To allow the largest time zone coverage, the conference was concentrated between 12:30-18:30 (CEST), with two 15' breaks and up to 7 parallel sessions running in parallel. How satisfied are you with this choice?

361 responses

1 (0.3%) 3 (0.8%) 28 (7.8%) 120 (33.2%) 209 (57.9%)

How satisfied are you with having the parallel sessions in the central part of the daily schedule and the plenary sessions at the beginning or at the end of the schedule?
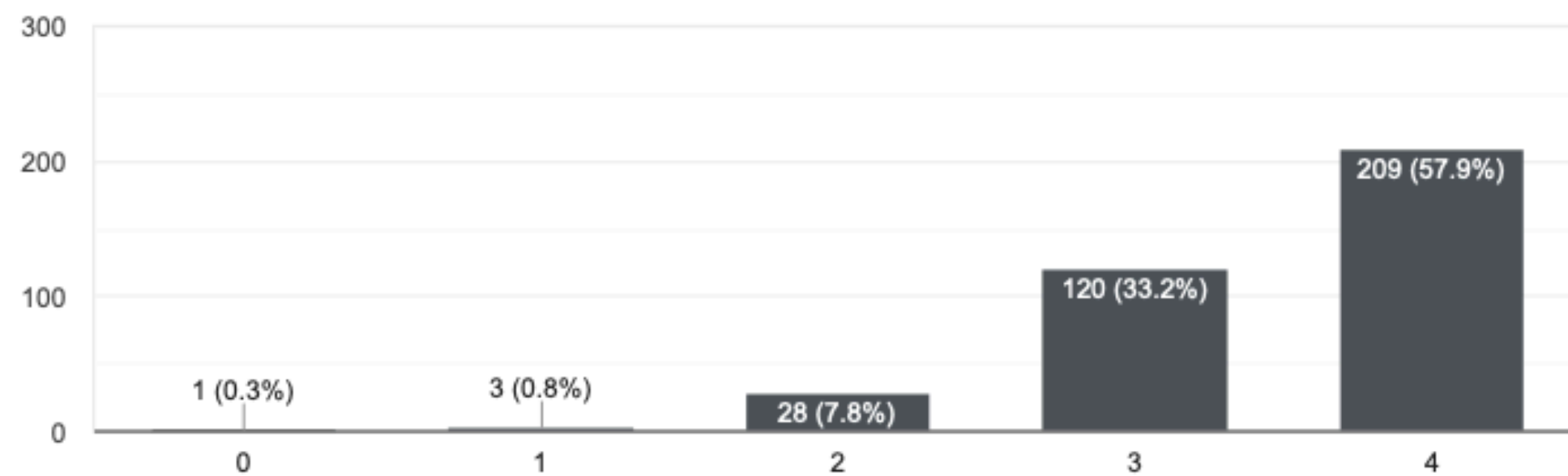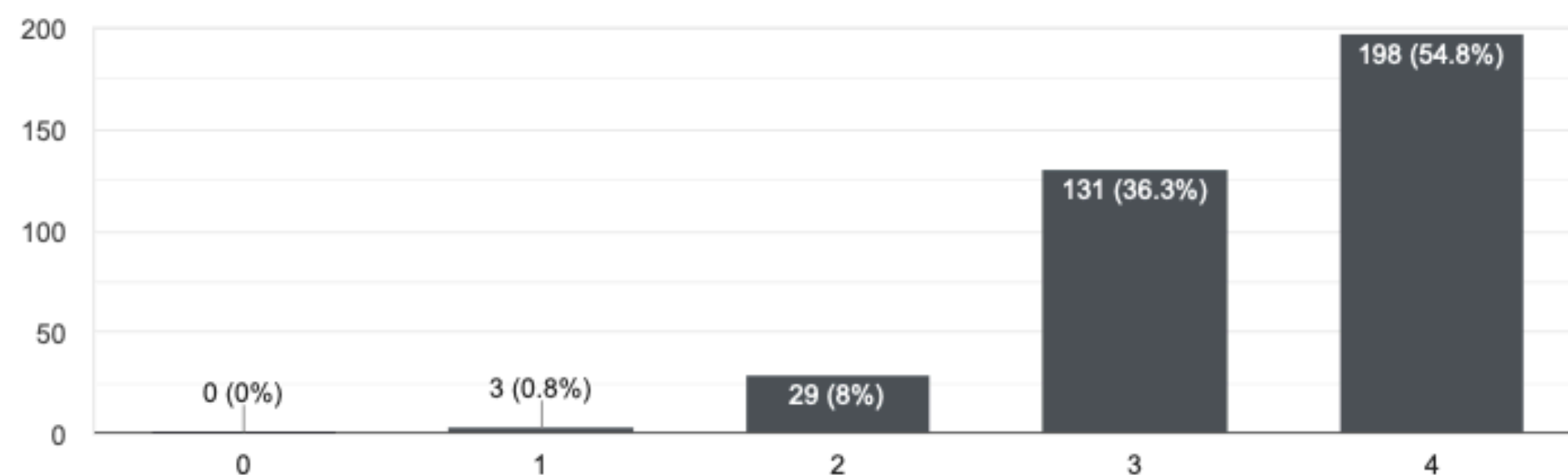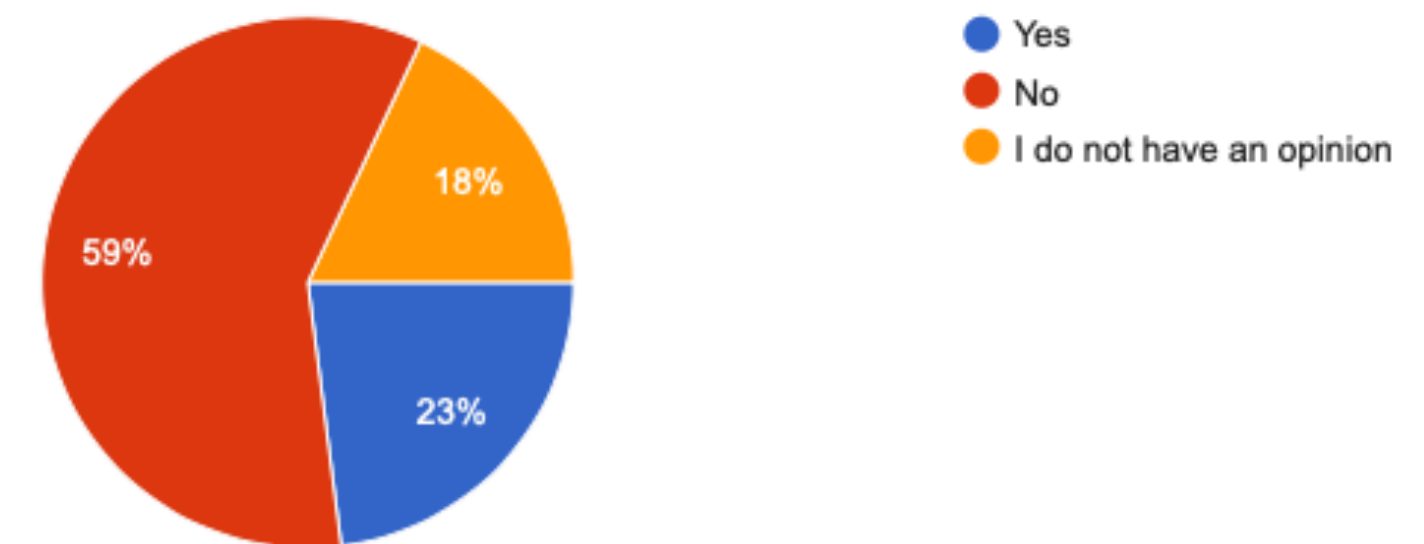
361 responses

0 (0%) 3 (0.8%) 29 (8%) 131 (36.3%) 198 (54.8%)

A possible alternative of the proposed format could be a 2 week long conference, with less parallel sessions running in parallel, longer breaks, and about 4 hours of conference per day. Would you prefer this alternative?

361 responses

- Yes
- No
- I do not have an opinion

59% 18% 23%

A possible alternative of the proposed format could be "premiere" sessions whereby talks are live and followed by 1 or 2 "replay" sessions to cover all time zones and during which recored talks will be retransmitted . Would you prefer this alternative?

361 responses

- Yes
- No
- I do not have an opinion

43.8% 32.7% 23.5%
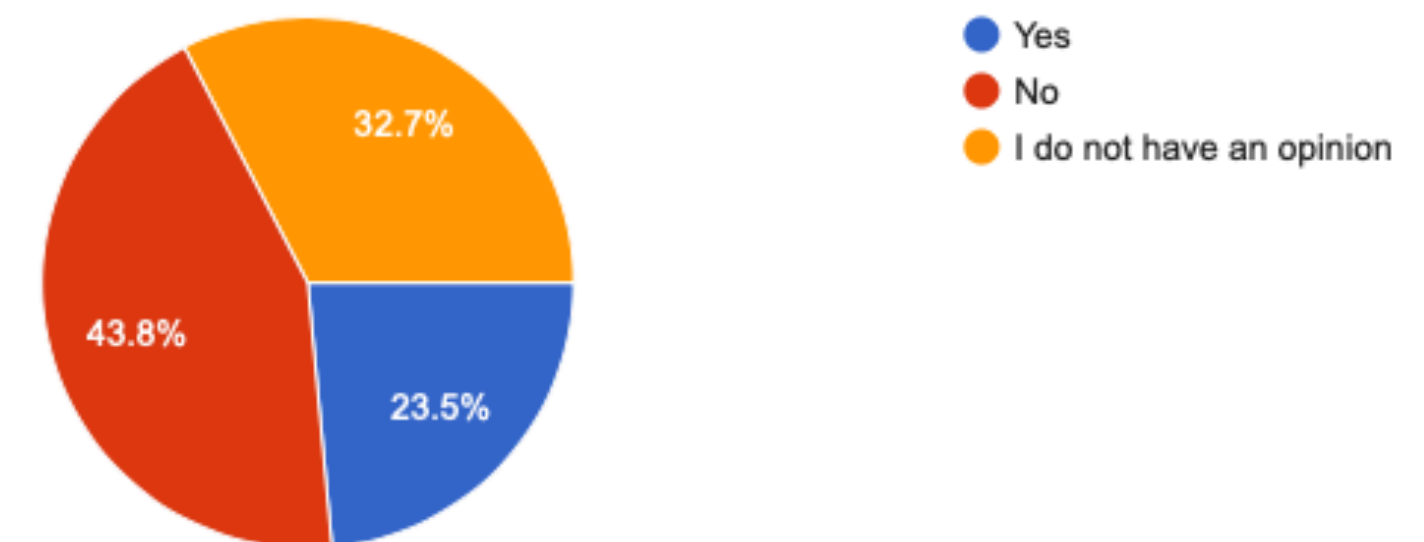
Technical set-up

Post-conference survey results

How satisfied are you with choice of ZOOM as the platform for the videoconferencing?

361 responses

- 0: 4 (1.1%)
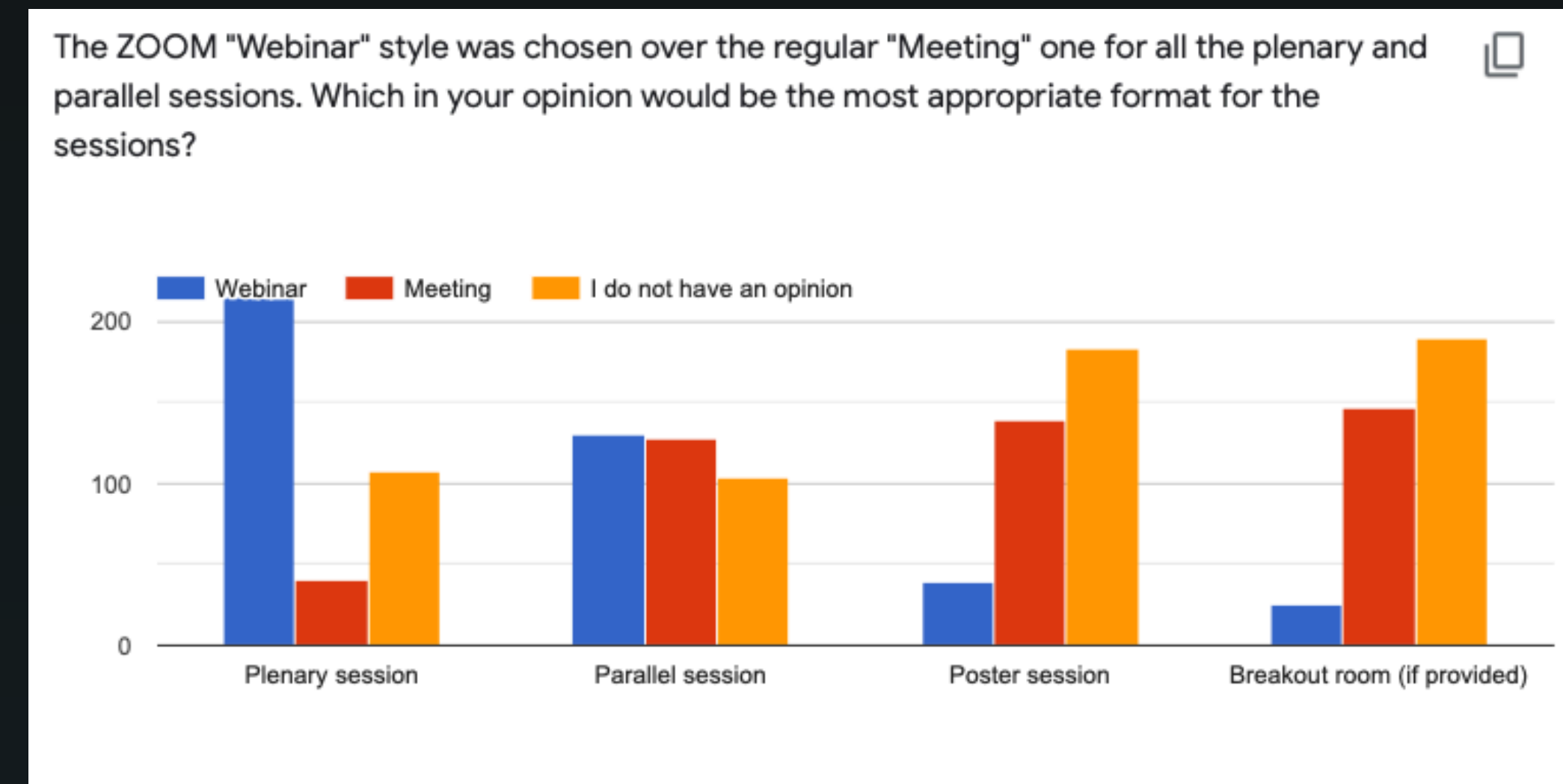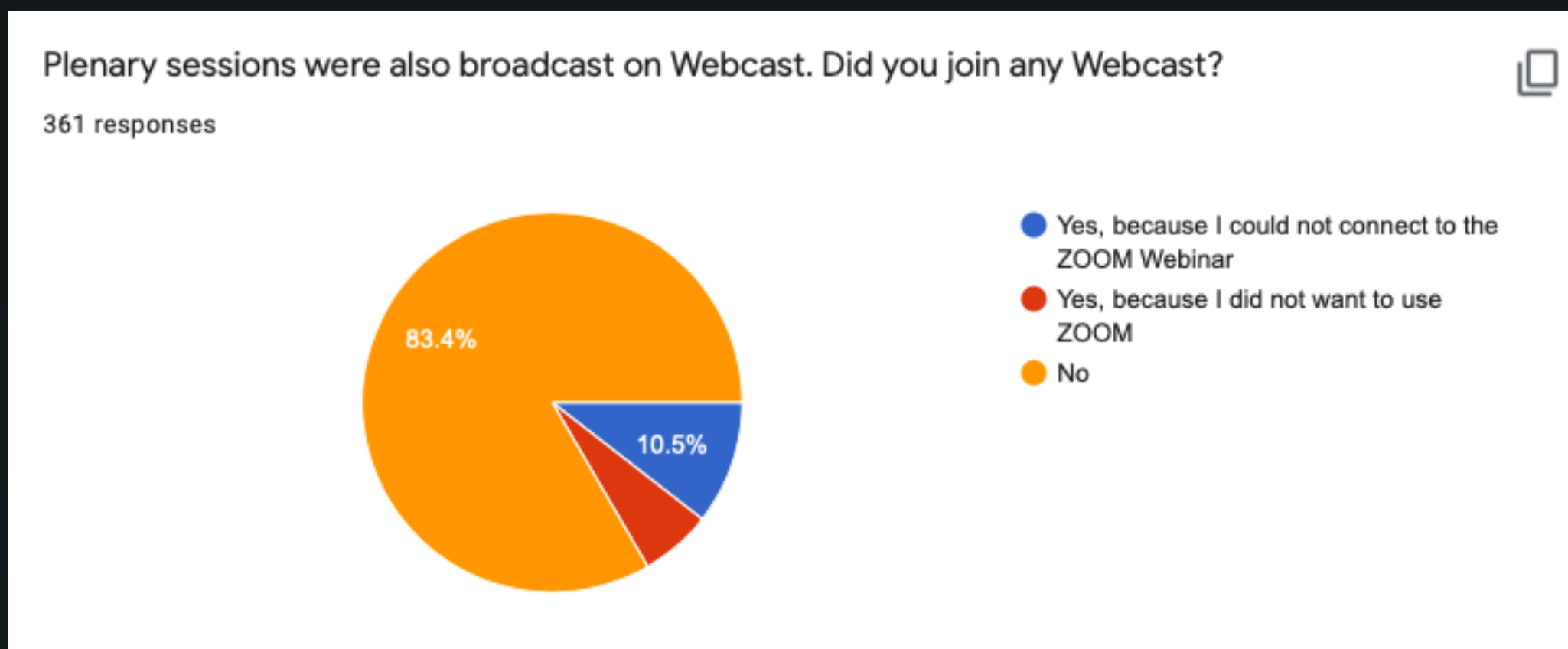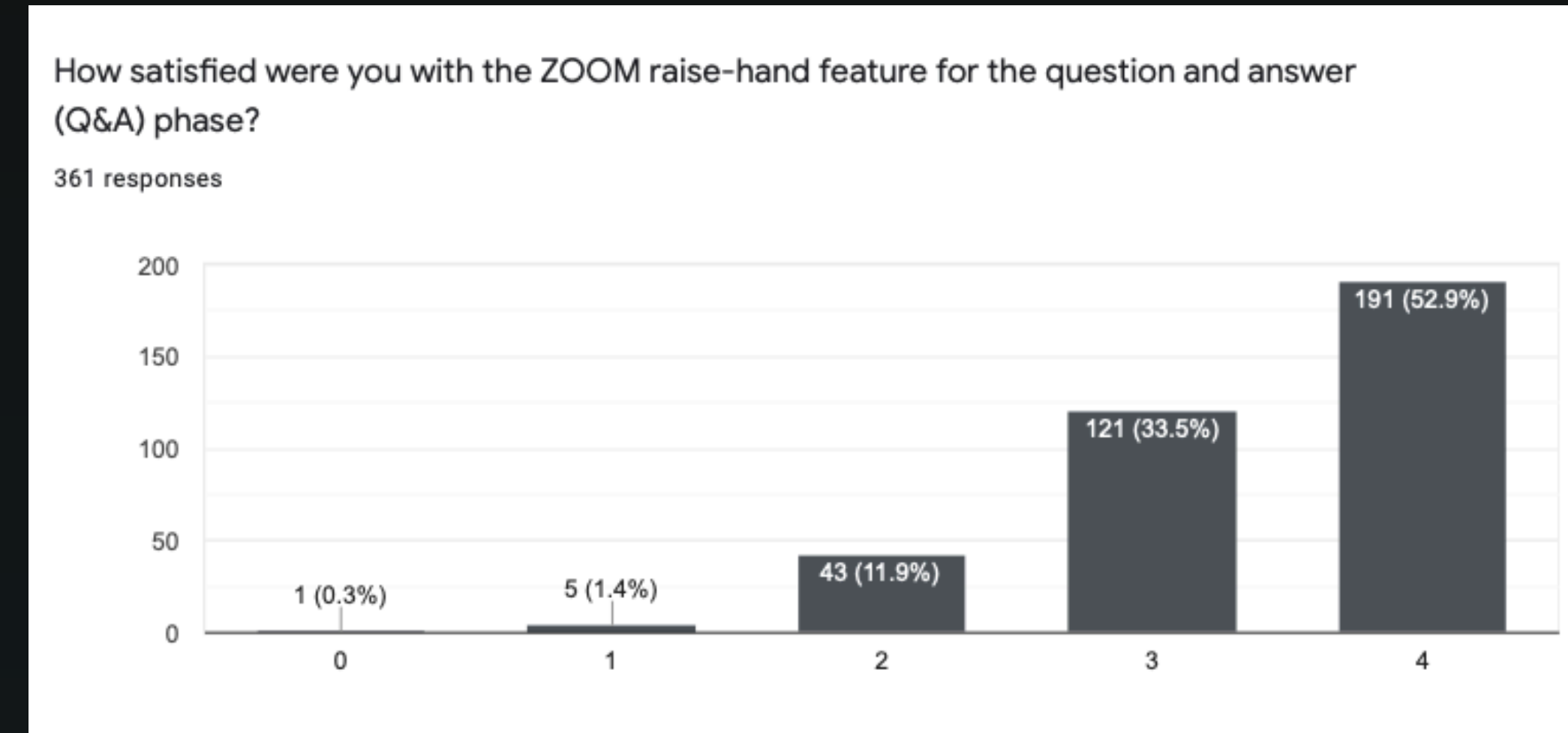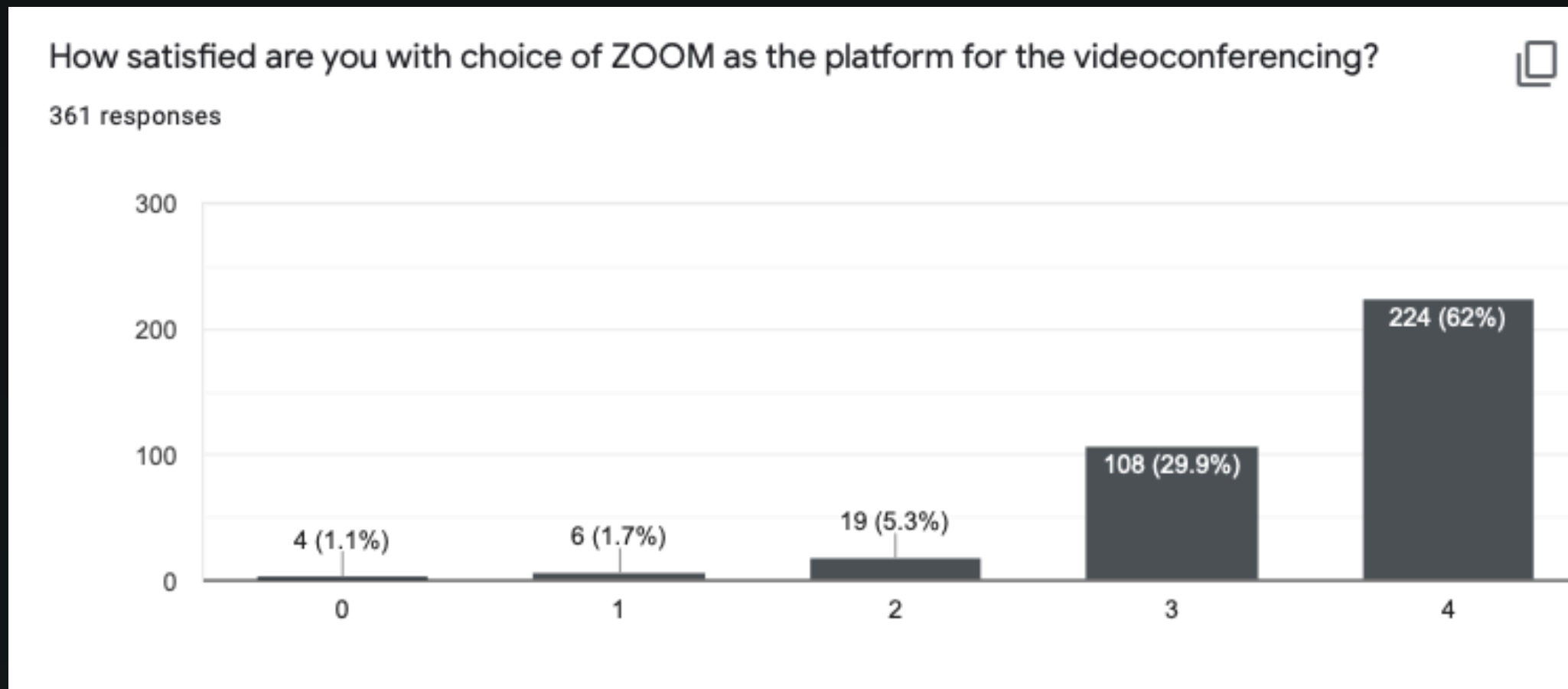- 1: 6 (1.7%)
- 2: 19 (5.3%)
- 3: 108 (29.9%)
- 4: 224 (62%)

How satisfied were you with the ZOOM raise-hand feature for the question and answer (Q&A) phase?

361 responses

- 0: 1 (0.3%)
- 1: 5 (1.4%)
- 2: 43 (11.9%)
- 3: 121 (33.5%)
- 4: 191 (52.9%)

Plenary sessions were also broadcast on Webcast. Did you join any Webcast?

361 responses

- Yes, because I could not connect to the ZOOM Webinar
- Yes, because I did not want to use ZOOM
- No

83.4%
10.5%

The ZOOM "Webinar" style was chosen over the regular "Meeting" one for all the plenary and parallel sessions. Which in your opinion would be the most appropriate format for the sessions?

Webinar / Meeting / I do not have an opinion

Plenary session / Parallel session / Poster session / Breakout room (if provided)

Technical set-up - reflections

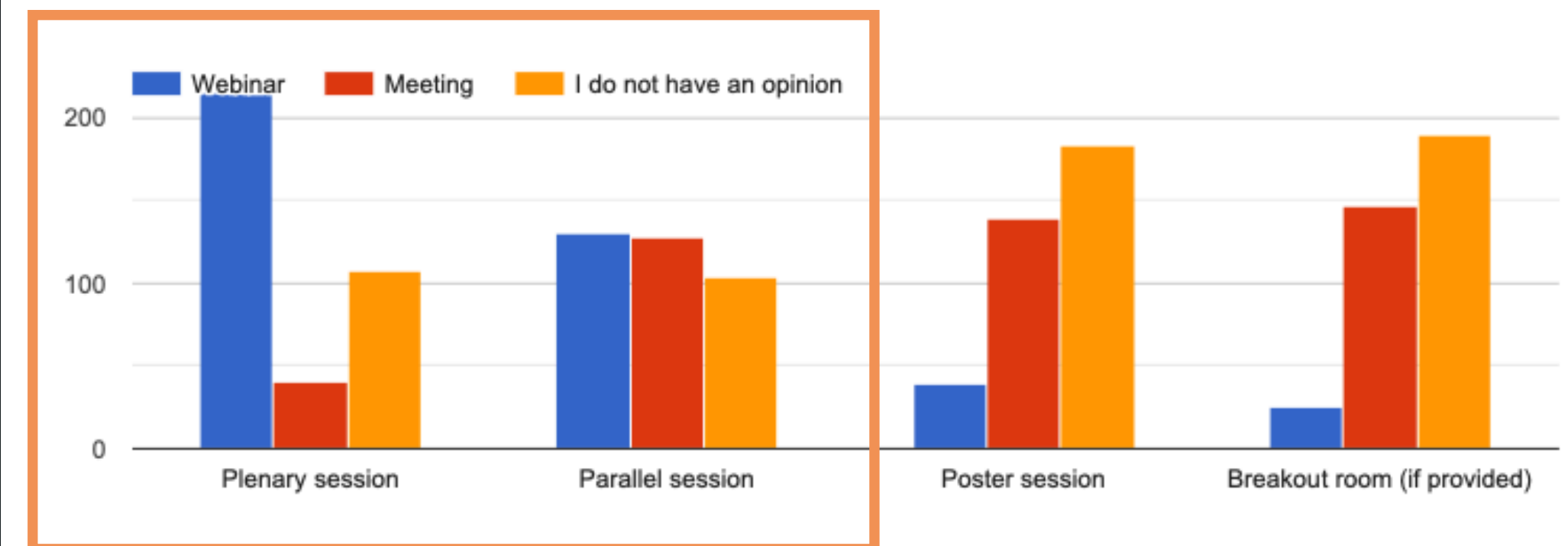**The technical set-up (ZOOM) works very well!**
for the slides sharing, integration of close captioning, webcast retransmission

For this first very large fully online conference ZOOM "Webinars" were chosen for plenary and parallel sessions
to control access, to avoid "gatecrashing", to avoid that participants by accident unmute/broadcast video
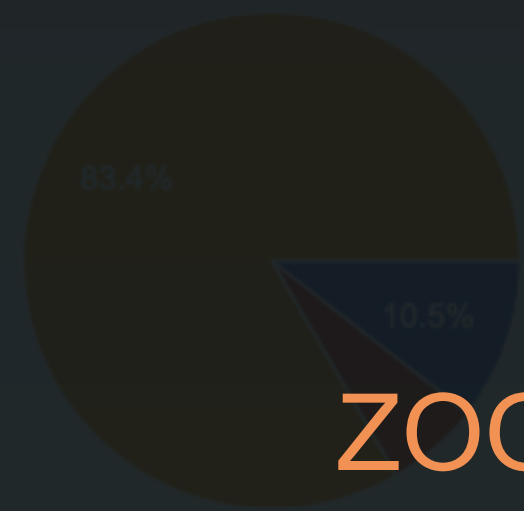**This has reduced the sense of community that is an important part of in-person conferences → for the next event (LHCP 2021) we will move to the ZOOM "Meetings"**

ZOOM "Webinars" were
largely considered appropriated

The ZOOM "Webinar" style was chosen over the regular "Meeting" one for all the plenary and parallel sessions. Which in your opinion would be the most appropriate format for the sessions?
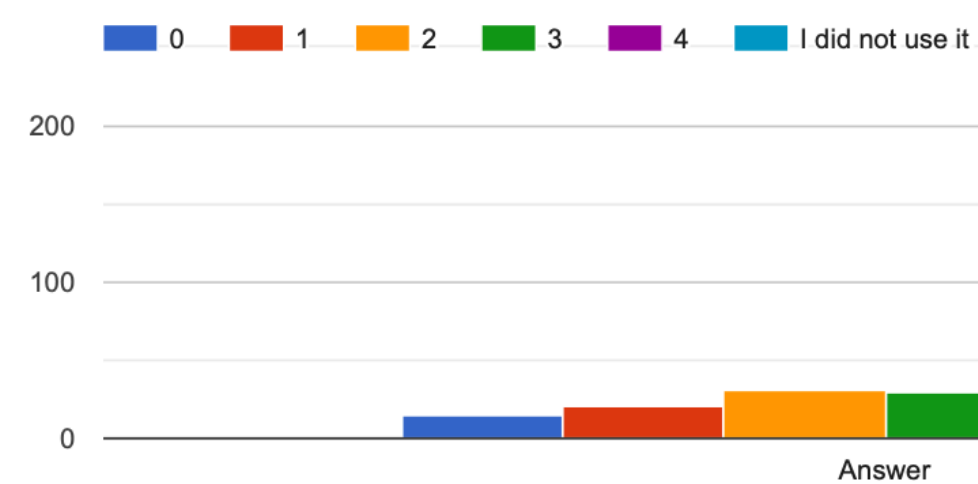
"Virtual" coffee breaks

To recreate these possibilities in the online conference experience, various solutions were adopted

- on the Discord online server : various virtual rooms were created, one for each parallel topic

- on the Discord online server : a more general "coffee-and-tea" room was created

- It was suggested to the speakers, on a voluntary basis, to be available, after the end of their session, in a Zoom meeting room ("breakout room")

Post-conference survey results

To recreate the feeling of community that is lost with the ZOOM "Webinar" style, dedicated Discord channels were created for the parallel sessions, where the participants could have commented on the session or even just say "hello". How satisfied were you with it? (0=not at all satisfied, 4=completely satisfied)

Similarly a dedicated Discord "virtual coffee break" channel was created. How satisfied were you with it? (0=not at all satisfied, 4=completely satisfied)
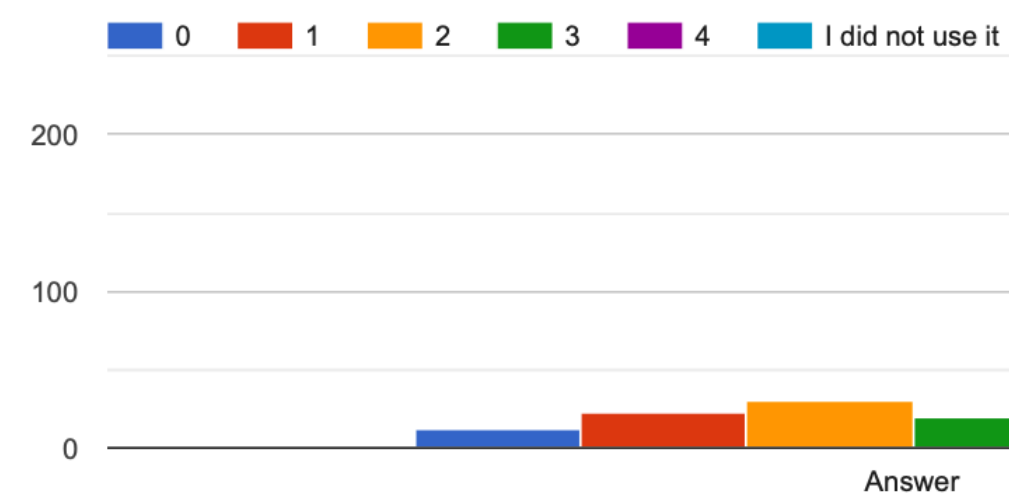
We suggested to all the speakers, on a voluntary basis, to create and advertise in their talk a ZOOM meeting room (a "breakout room") for discussions with participants after their session (similarly to what might happen in an in-person coffee break). How satisfied were you with this option? (0=not at all satisfied, 4=completely satisfied)
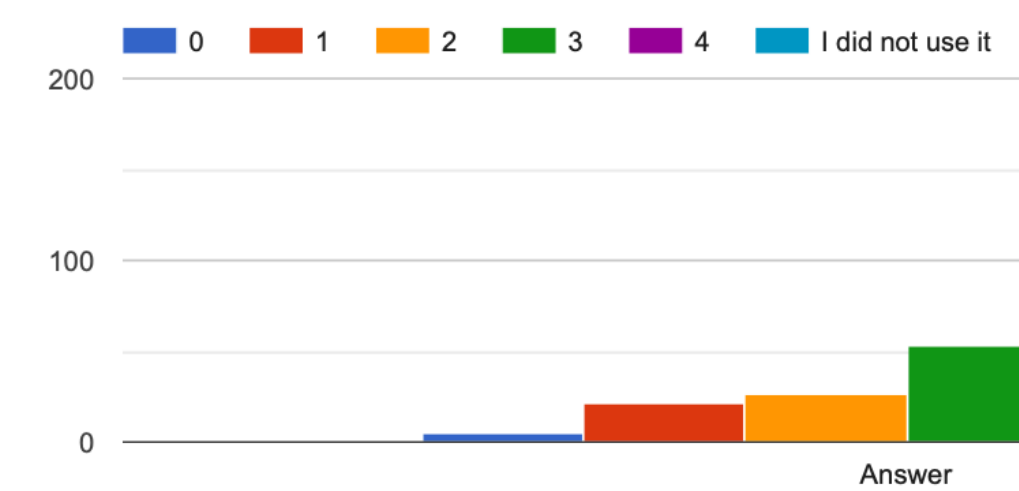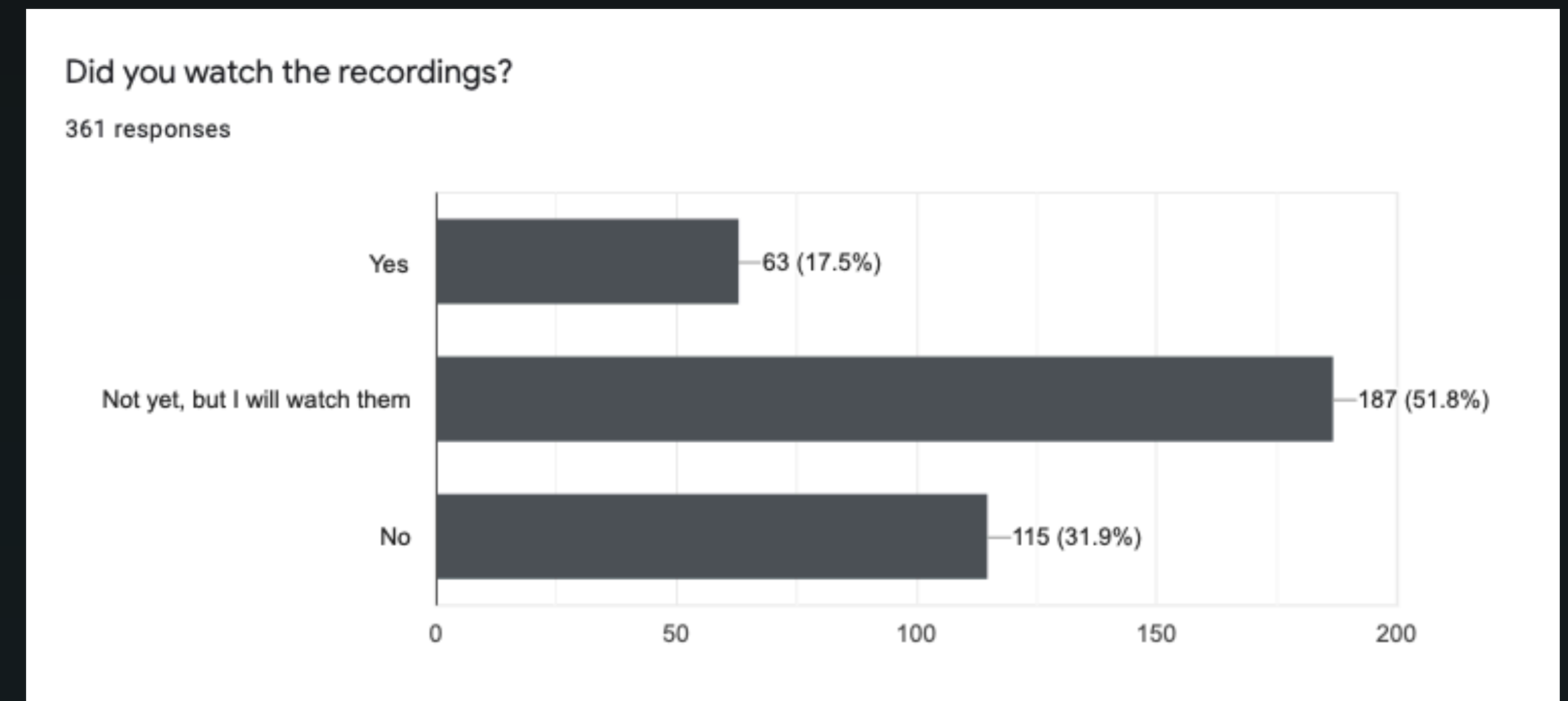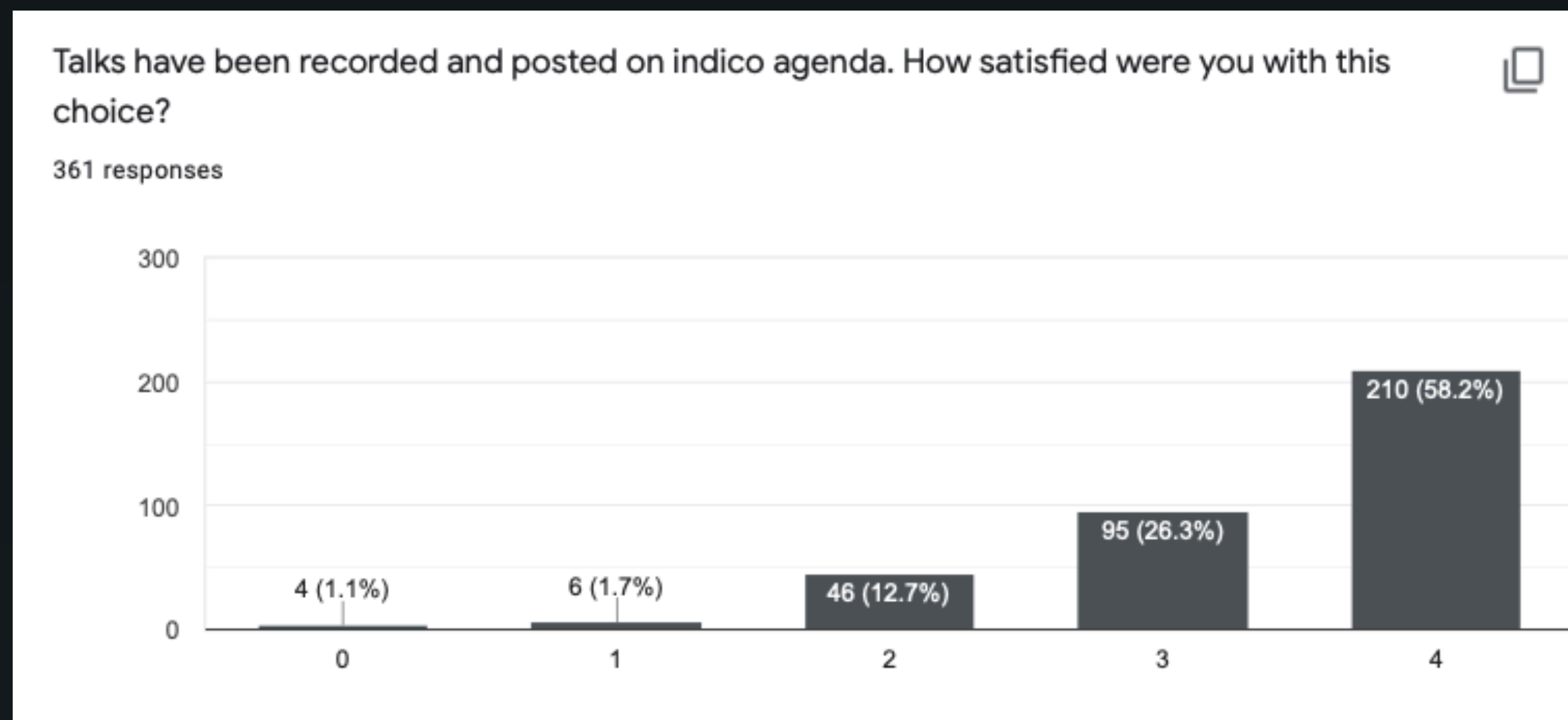
Recordings and transcriptions

Talks were recorded (we asked the standard CERN consent to all the speakers) and posted on CDS

Most of the plenary sessions and few selected parallel sessions were captioned, for the other sessions off-line captioning of all the talks were provided with Otter.ai

~40 automatic transcriptions were edited in post-production by volunteered participants and provided to CERN IT department that did a consultancy with Machine Learning and Language Processing research group (link) to prepare a tender for an Automated Speech Recognition system for HEP

Post-conference survey results

Talks have been recorded and posted on indico agenda. How satisfied were you with this choice?

361 responses

- 4 (1.1%) — 0
- 6 (1.7%) — 1
- 46 (12.7%) — 2
- 95 (26.3%) — 3
- 210 (58.2%) — 4

Did you watch the recordings?

361 responses

- Yes — 63 (17.5%)
- Not yet, but I will watch them — 187 (51.8%)
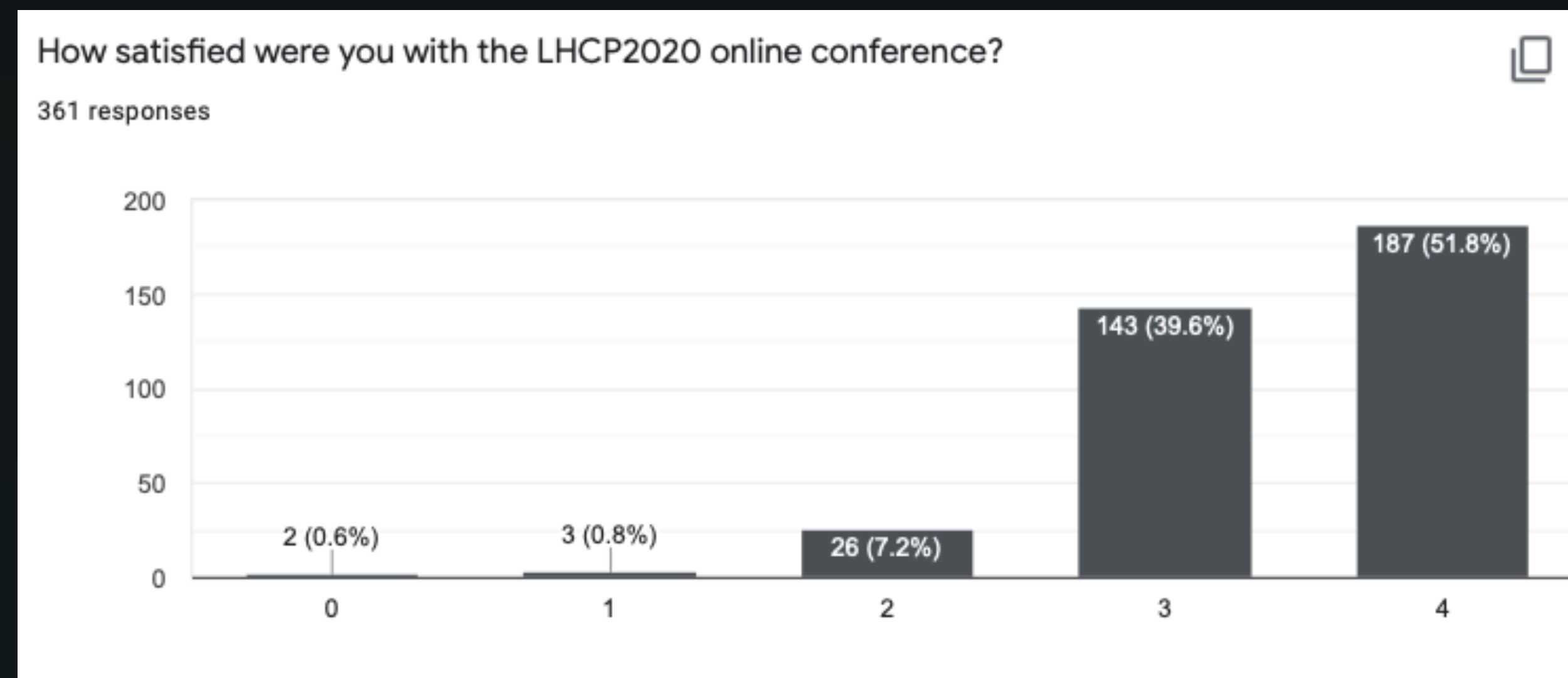- No — 115 (31.9%)

Conclusions

LHCP 2020, originally scheduled to be held in Paris, was held as a fully online conference from 25-30 May 2020.

Waiving of the registration fee allowed us to bring the LHC community together, in larger and more diverse numbers than before !

Overall, it was very well-received, with positive feedback from surveyed participants !

Post-conference survey results

How satisfied were you with the LHCP2020 online conference?

361 responses

- 2 (0.6%) — 0
- 3 (0.8%) — 1
- 26 (7.2%) — 2
- 143 (39.6%) — 3
- 187 (51.8%) — 4

More results from the survey can be find here

… and LHCP 2021 will be online from 7-12 June 2021