

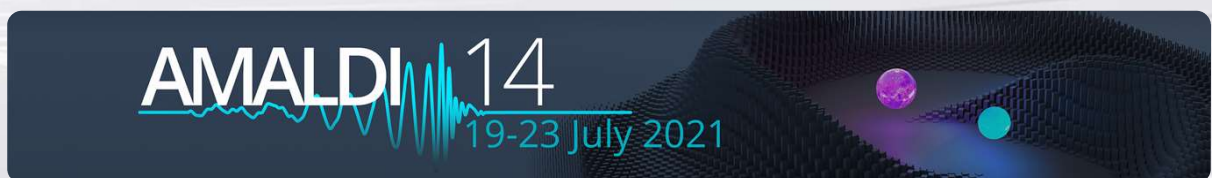
THE 14TH EDOARDO AMALDI CONFERENCE ON GRAVITATIONAL WAVES (AMALDI14) VIRTUAL CONFERENCE FINAL REPORT

Hosted by: ARC Centre of Excellence for Gravitational Wave Discovery
(OzGrav)

Dates: 19-23 July 2021

Report authors: Erin O'Grady and Yeshe Fenner (Local Organising Committee)
Matthew Bailes (Chair, Scientific Organising Committee)

Susan Scott (Chair, Local Organising Committee)



Contents

Conference Overview.....	2
Meeting summary:.....	2
Human Resources	2
Session Chairs and Tech support:	3
LOC Tasks	3
Timeline:	4
Virtual platforms used	4
Program and time zone format.....	5
Plenary talks and parallel sessions.....	5
Poster sessions.....	6
Award Ceremony - GWIC-Braccini Thesis Prize	6
Equity and diversity session	6
Recordings.....	7
Registration fee.....	7
Website and payment.....	7
IUPAP sponsorship	7
Budget.....	8
Accessibility and inclusion	8
Gender & geographical diversity	9
Code of conduct & ombudspeople	9
What worked well.....	9
What could have been done differently.....	10
Conclusions	11
Appendix A: Report about procedure for selection of talks	11
Appendix B: conference feedback	12

Conference Overview

Hosted by: ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav)

Dates: 19-23 July 2021

Attendees: 517 registrations

Website: <https://www.amaldi14.org/>

Sessions: 29 parallel talks sessions (total of 174 talks), 4 plenary sessions (12 talks), 3 poster sessions (112 posters), 1 Equity and Diversity talk & the Braccini award and talk.

Sponsors: IUPAP

Report authors: Erin O'Grady and Yeshe Fenner (Local Organising Committee)

Matthew Bailes (Chair, Scientific Organising Committee)

Susan Scott (Chair, Local Organising Committee)

Meeting summary:

OzGrav were successful in their bid to host the 14th Edoardo Amaldi Conference on Gravitational Waves (Amaldi14) in Melbourne Australia. The conference is held biennially and is usually held as an in-person event, across 5 days that includes plenary talks, parallel sessions, social and networking activities, poster sessions and a conference dinner. The typical attendance is around 150-200 participants.

Due to the Covid-19 Pandemic it was decided by the Scientific and Local Organising Committees to convert the conference to a 5-day virtual event, 19-23 July.

The main conference sessions were run across three, 2-hourly blocks of time across each day, separated by eight hours. Block 1 was U.S.-Europe friendly time zone, Block 2 Australasian-U.S. friendly time zone and Block 3 Australasian-Europe friendly time zone.

Human Resources

Local Organising Committee (LOC)

Susan Scott, **Chair** (Australian National University)

Eric Thrane (Monash University)

Jade Powell (Swinburne University of Technology)

Bernhard Mueller (Monash University)

Yeshe Fenner (Swinburne University of Technology)

Erin O'Grady (Swinburne University of Technology)

Scientific Organising Committee (SOC)

Matthew Bailes, **Chair** (Swinburne University of Technology)

Sarah Antier (Laboratory Astroparticle and Cosmology)

Sukanta Bose (Washington State University)

Marica Branchesi (Gran Sasso Science Institute/INFN)

Monica Colpi (University of Milano Bicocca)

John Conklin (University of Florida)

Martin Hewitson (AEI Hannover)

Michael Kramer (Max-Planck-Institut für Radioastronomie, Germany)
Frédérique Marion (LAPP)
Maura McClaughlin (West Virginia University)
Jess McIver (University of British Columbia)
Priyamvada Natarajan (Yale University)
Dave Reitze (California Institute of Technology and University of Florida)
Sheila Rowan (University of Glasgow)
Patricia Schmidt (University of Birmingham)
Susan Scott (Australian National University)
Hisaki Shinkai (Osaka Institute of Technology)
David Shoemaker (Massachusetts Institute of Technology)
Stephen Smartt (University of Belfast)
Tarun Souradeep (IISER, Pune)
Ira Thorpe (NASA)

Session Chairs and Tech Support:

The SOC arranged 33 chairs to facilitate each session and the LOC selected 15 tech support that were made up of OzGrav students and postdocs, with one tech support allocated to each program session. Both the tech support and chairs were essential in the smooth running of each session. Prior to the conference the LOC created a tech support and chair resources folder that included

- The roles and responsibilities of the chairs and tech support
- Zoom links & host key information
- Speaker and poster presenter contact details
- Troubleshooting guide that outlined various scenarios and what to do if they occurred

The LOC also ran two Zoom tech support training meetings prior to the conference. This was extremely helpful in ensuring all tech support were confident in what they were required to do and to test all Zoom and Gather town links. Throughout the conference the LOC set up an editable working document where tech support gave feedback about their session and what did or didn't work. This document was very helpful to crosscheck and make amendments if required for sessions to follow.

LOC Tasks

Running the conference as a virtual event platform, surprisingly required a large amount of preparation time and a similar amount of organisation and preparation as for an in-person event. This is largely to do with the event program format across three blocks of time each day and the amount of scheduling involved to allocate each speaker to an appropriate time zone.

A list of some of the LOC tasks included:

- Creating registration and event webpage
- Promoting the event via various communications
- Triaging registration and participants' email inquiries
- Scheduling 188 talks, across 5 days, taking into consideration each speaker's time zone, talk category, and minimising overlap of similar scientific talk categories running in the same parallel session.
- Creating a virtual poster session space, poster instructions, and uploading 116 posters, ensuring each poster presenter was allocated a friendly time zone to present their poster.

- Allocating tech support to each session, checking speaker slides prior to their talk, collating a troubleshooting guide for all chairs and tech support to follow in the event of things not going to plan
- Uploading the recordings of each of the sessions and making these accessible shortly after each session and making them publicly available after the conclusion of the conference

For the duration of the conference there was a need for a constant presence throughout each session to handle any issues and having various backup solutions if anything failed.

Timeline:

- 15 March 2021- First announcement
- 12 April 2021- Registration and Abstract submission open
- 17 May 2021- Abstract submission deadline
- 25 June 2021- Notification of successful abstracts
- 12 July 2021- Registration closes
- 16 July 2021- Poster submissions
- 19-23 July 2021- Conference (virtual event)

Virtual platforms used

The LOC decided to use **Zoom** meetings for all talk sessions in the program. The consensus was that Zoom is a Videoconferencing tool that all participants of this event will most likely be accustomed to using and have already installed. We did discuss using Zoom webinar, however, the feedback from the LOC was that Zoom webinar removes audience/speaker interaction and can feel as though you are presenting your talk to no one.

Each conference stream had its own zoom link set up with separate individual zoom accounts. We ensured that each zoom account had the license and settings required, e.g. able to host up to 1000 people for the main single stream sessions, and up to 300 people for the parallel sessions. The tech support people used the zoom host key to “claim” the host role. We did tests in advance to iron out any issues, and to ensure the settings were correct (e.g. no “ping” when people join, start recording automatically to avoid the inevitable instance where the tech support would forget to start the recording).

Gather town was used for the poster sessions. Many virtual platforms were investigated and Gather town was chosen for its simplicity for users to login without the need to download software prior to the poster session. The cost was also a factor, and by running all poster sessions on one day, costs were able to be significantly reduced. The Gather town general inquiries email was very helpful and responsive to any questions and were happy to give us some guidance on what type of upgrade would best suit our poster session. Gather town also offered 30% discount because we are a tertiary institution. The interface to build a virtual poster room was basic and, in some parts, not overly intuitive, for example multiple users cannot edit the same space at the same time and any account access changes that are made did seem to take a long time to update. We would recommend keeping any space you make simple and utilise the pre-designed spaces Gather town offer as it will save a lot of time and reduce any back-end glitches to your space. In saying this, Gather town have plenty of how to guides and tutorials available.

Program and time zone format

To ensure the conference was as inclusive as possible for attendees and speakers from all over the world, the program format was different to a usual 9am-5pm conference. The SOC and LOC decided to schedule the conference into three 2-hourly sessions each day. Each session was staggered by 8 hours. On day 2 we added an extra hour onto the end of each session to dedicate to the poster sessions. We also added an extra timeslot for the GWIC Braccini student thesis award ceremony and talk. As well as accommodating participants' time zones, the short two-hour blocks were aimed to reduce "zoom fatigue" and accommodate the Covid-19 pandemic, where many people are still working from home.

Plenary talks and parallel sessions

Over the 5-day conference 12 plenary talks and 174 parallel talks took place.

Each plenary talk session consisted of 3 speakers giving 40-minute talks (30min + 10 minutes Q&A).

The plenary speakers were allocated by the Amaldi14 SOC. The plenary talk topics were:

The growth spurt of gravitational-wave astronomy

Astrophysical lessons from binary black hole populations

Learning about gravity with LIGO and Virgo

Recent GW results from the LIGO-Virgo-Kagra Collaboration

Future plans for ground-based, laser-interferometric GW observatories

Electromagnetic counterparts to gravitational wave sources: O3 and beyond

Gravitational wave instruments in space

Modelling gravitational wave and electromagnetic signals from neutron star mergers

Pulsar timing arrays: The next window to open on the gravitational-wave Universe

Observing gravitational waves from space with LISA

Numerical and analytical modelling of binary black holes

Survey cosmology in the multimessenger era

Each parallel talk session consisted of 6 speakers giving a 20-minute talk (15 mins + 5 mins Q&A). The category of talks included:

Current Interferometric Detectors: design, performance, characterisation/calibration

Cosmology and Relativity using Gravitational Waves

Education and Public Outreach

Future Observatories

Instrument Concepts and Techniques for Future Detectors

Multi-Messenger Astronomy with Gravitational Waves

Pulsar Timing Techniques and Results

Search Techniques and Results for Coalescing Binary Gravitational Waves

Search Techniques and Results for Continuous Gravitational Waves

Search Techniques and Results for Stochastic Gravitational Waves

Search Techniques and Results for Unmodelled Transient Gravitational Waves

Source Astrophysics Waveforms and Modelling

Space-based Detector Instrument Science and Technology

Poster sessions

The poster sessions were on Day 2 of the Conference across three 1-hour sessions. All abstracts that did not receive a talk were offered the option to present a poster. In total we had 116 submissions. Poster presenters were allocated a poster session that would be feasible for their local time zone. Instructions regarding the poster session were sent to the poster presenters, including poster format and the deadline to submit their poster via drop box. All posters were uploaded by the LOC prior to the conference. A link to poster presenters in each poster session was available in the finalised program. As mentioned earlier, Gather town was used as the virtual poster session platform. We had instructions of how to access the platform available via the information tab of the final program as well as the event website. We also had tech support available via a dedicated Zoom link to trouble shoot with anyone having any technical issues and a tech support at a help desk within Gather town poster session space for anyone needing assistance navigating the space. Overall there were only minor technical issues that arose such as changing browsers or disconnecting any external speakers from laptops. The feedback received via the survey indicated the poster sessions were a major highlight of the conference.

Award Ceremony - GWIC-Braccini Thesis Prize

We allocated a 1-hour timeslot for the award session for the presentation of the GWIC-Braccini Thesis Prize followed by the Prize-winner's talk. The GWIC Chair chaired this session. This 1-hour timeslot directly followed one of the standard 2hr blocks. There was discussion among the LOC, SOC and GWIC about whether to have Amaldi-specific awards such as best poster, but since that is not traditionally done at Amaldi meetings, we did not offer such prizes.

Equity and diversity session

The LOC arranged for an external speaker Dr Francesca Maclean to deliver the keynote diversity & inclusion talk. Francesca is an Australian-based leading advocate for diversity and inclusion in STEM. She discussed challenges and new horizons in D&I, including: - Privilege and D&I/change fatigue - Investing in change, volunteer fatigue - Multiple priorities to advance at once - Programmatic v strategic approach - Marketing v reality in a talent war - Differing generational expectations - Reacting to social movements v responding with a long-term strategic approach.

It was not a particularly well-attended session with only about 30 people online. However, the feedback about this session from the post-event survey was positive, with 86% being satisfied or very satisfied, 7% feeling neutral, and 7% being dissatisfied or very dissatisfied.

The LOC had already planned on having a single-stream D&I session, but we note that this is also a requirement of IUPAP support.

Recordings

All talks were recorded on zoom cloud. We made the unedited zoom recordings available immediately following each session so that people who missed out could watch talks. This was especially important given that the timing and parallel nature of the sessions meant that attendees could only watch a fraction of the talks live.

After the conclusion of the conference, we edited the recordings to remove the pre-session section and any talks that the speaker did not want to be publicly available. We uploaded those talks to YouTube as unlisted videos and used the “chapter” feature in YouTube to enable people to jump to the talk of interest in each session. We then linked to those videos within the conference program, for ease of reference.

Registration fee

A small registration fee of \$25 AUD for students and \$50 AUD for standard registration, was an amount chosen to cover some of the costs such as the Zoom license, poster session virtual platform and any paid speaker fees. It was decided that a small fee rather than a free registration was necessary to ensure that the registration was a true reflection for attendee participation. Financial support was also available to individuals via a request form. The LOC received 19 requests and \$600 was used to waive registration fees.

Website and payment

The LOC decided to use Eventbrite for registration and payment as it is one of the event management tools that Swinburne University recommended. From an organisational perspective the Eventbrite interface was simple to use, easy to build the registration form and manage payments via the one system. It also had a choice of several useful reports that you can run regarding registration and payment data.

The LOC decided to use Weebly for the event webpage, which is the same platform as the OzGrav website. From an organisation perspective it was decided Weebly would be adequate to create a simple event webpage and it is an interface some of the LOC were already familiar using.

Weebly is suitable for simple website and event webpages, however it does have some limitations in terms of integrating and imbedding other websites and platforms; it has a very basic form building tool and payment portal options, that were not adequate to use for the Amaldi14 conference.

IUPAP sponsorship

The International Union of Pure and Applied Physics (IUPAP) have provided sponsorship for the recent Amaldi meetings. This can be applied for through their website:

<https://iupap.org/conferences/applications/application-for-conference-sponsorship/>

In order to receive IUPAP support you must meet a range of criteria and adhere to IUPAP policies and requirements, such as keeping the registration fee less than a specified limit, including a diversity & equity activity in the program, minimising costs for students and under-privileged attendees, striving for gender balance, and many more. It is advisable to familiarise yourself with the IUPAP application form and requirements early on in the process to ensure that you can meet the requirements and e.g. your registration & abstract forms gather the information that you will need for your final report to IUPAP. There was also an IUPAP requirement to publish the conference

proceedings publicly, however we received permission that we could instead make recordings of the talks publicly available.

Budget

Revenue	Amount (AUD)
IUPAP sponsorship	\$10,363.20
Registration	\$16,702
Total income	\$27,065.20

Expenses	Amount (AUD)
Zoom upgrade to 500-1000 users	\$2,028.90
Tech support	\$2,943.08
Gather town	\$570
Dropbox upgrade	\$30.79
Survey monkey	\$99.00
Equity and Diversity keynote speaker	\$4,000
Amaldi financial assistance	\$600
Total expenses	\$10,271.77
Total income	\$27,065.20
Total surplus	\$16,793.43

Accessibility and inclusion

A focus for this conference was to make it as accessible as possible. Many factors were considered to boost accessibility including:

Low cost registration fee: Registration of AUD\$25 for students and AUD \$50 for general registration allowed the conference to be accessible to those that have low budget allocations to attend conferences. For those that wanted to attend and did not have any financial source available to them, the LOC provided financial assistance and waived the registration fee. To access this, attendees needed to complete the online form that we made available on the event website that asked for name, institution affiliation (if any), and reason to seek financial assistance.

Breaking the program into three 2-hour blocks of time each day: All participants could access at least one live program session each day. Many people are still working from home or under lockdown restrictions due to the global pandemic, so having three short sessions each day was aimed to provide people with flexibility to allocate a smaller amount of time in their day to participate in the conference and avoid people getting zoom fatigue.

Recording of talks: Recording all talks and making them available shortly after each session had concluded allowed people to watch any sessions that they were unable to attend in their own time.

Closed captioning: The LOC investigated and trialed numerous real time closed captioning services, with the intention of it being available for all sessions throughout the conference. After trialling them it became clear that some of the services were extremely inaccurate, slow or did not integrate with Zoom. It was decided close to the conference commencement that we would not be able to

offer the real time closed captioning. For the talk recordings that were made publicly available we activated the YouTube closed captioning service and it does seem to be fairly accurate.

For future conferences we recommend, based on this experience, that users with special requests like closed captioning get in contact with the organisers well in advance and that they share with the conference organisers any knowledge they might have of captioning companies providing sufficiently accurate closed captioning.

Gender & geographical diversity

148 out of 517 (29%) registrants were women.

6 out of the 12 (50%) plenary speakers were women.

49 out of the 174 (28%) contributed talks were by women.

2 out of 2 (100%) keynote talks (Diversity & Inclusion and the Braccini Prize) were from women.

10 out of 21 (48%) members of the Scientific Organising Committee were women.

See Appendix below for details of the selection procedure for talks and plenaries.

440 out of 517 (85%) registrants were from outside the host country of Australia. There were 29 countries in total that participated in the conference. We also issued 19 registration waivers to students and Early Career Researchers in financial need, and these were all from outside Australia.

Code of conduct & ombudspople

To encourage appropriate professional communications & behaviour from participants, we required them to indicate when they registered that they were aware of, and would adhere to, the conference code of conduct. We also referred to the code of conduct in the program.

We appointed two ombudspople that attendees could contact if they had any concerns about inappropriate behaviour or comments during the event. Attendees were also encouraged to contact the conference organiser with any concerns.

We did not have any reports or complaints come through to the conference organisers or the ombudspople. In our post-event survey, we asked how comfortable participants were with the conduct of other attendees, and 94% were comfortable or very comfortable, 5% were neutral, and 1% (corresponding to 1 response) was uncomfortable. We also asked how comfortable they felt asking questions or making comments, and 70% were comfortable or very comfortable, 28% were neutral, and 2% were uncomfortable. From the comments provided in the survey, many people enjoyed asking questions via Zoom chat, as that felt less intimidating than asking a question verbally.

What worked well

- **Training and coordination of the tech support:** Each session was supported by a chair and a tech support volunteer. The LOC created documents clearly delineating the roles of the session chairs and the tech support. We also ran a training/Q&A session with the tech support to demo the Zoom features they may need to use and Gather town. We also discussed with tech support potential issues that may arise, and we shared with the chairs and the tech support a detailed troubleshooting guide to step through solutions to possible issues. We also encouraged tech support to share with the rest of the team any relevant experiences or lessons learned as they ran their sessions.

- **Keeping speakers to time:** The session chairs were instructed that one of their main roles was to keep the speakers to time, to ensure that the conference flowed smoothly and, in particular, so that people could switch between parallel sessions without missing out on a portion of the talk. The chairs did an excellent job on this front, giving verbal time warnings and stepping in to curtail Q&A in time to move on to the next talk. The Zoom format lends itself very well to adhering to time for several reasons: people can screenshare so quickly that it takes just a few seconds to switch between talks; speakers were encouraged to join the session early to test and troubleshoot any screensharing or audio issues in advance; and tech support/chairs had the ability to forcibly stop screensharing if needed to keep to time.
- **The Gather town poster session platform:** Gather town was chosen for its simplicity for users to access and not have to download any software. From an organiser's perspective it was straightforward to create a simple poster session room and upload the poster slides. Based on the feedback from our tech support minimal technical issues arose and those that did were easily resolved. The feedback survey indicates that the poster sessions were a highlight of the Amaldi14 conference. There was a consistent number of attendees at each poster session of approximately 50-80 attendees, which we consider a good turnout, based on the feedback we had received from other scientific conference organisers that had used virtual poster session platforms.

What could have been done differently

- **Better time zone conversion:** Having a program that showed the sessions' times in the user's local time zone. While we only had 1 speaker not turn up to their talk due to time zone conversion issues, we did have some chairs and attendees experience confusion over time zone conversion, including a small number of chairs that did not turn up to their session due to getting the day or time wrong. Even in those cases, our tech support were typically able to step in and follow the troubleshooting guide in order to quickly nominate a replacement chair.
- **More tools/forums for ad hoc chats and networking:** Some of the feedback from the post-event survey was that attendees would have liked the opportunity to use something like Slack for communications throughout the event, and more social/networking activities. In retrospect, we could have made more use of Gather town as a space for ad hoc gatherings or networking events.
- **Integrated conference management platform:** We deliberately tried to lower barriers of participation by using platforms that attendees would be familiar with and/or platforms like Gather town that are very simple and intuitive to use. Therefore, our program was a simple webpage that included tabs and links to all the relevant information. We also set up a Dropbox folder for users to upload their talk slides and posters. Feedback via the survey was that it could have been better to use a fully integrated purpose-built conference management system like Indico.
- **More interactive Q&A:** We originally instructed the chairs to request that attendees submit questions to speakers via the Zoom chat box. However, we received feedback that it would have been preferable to also encourage people to use the Zoom hand up feature to ask their questions verbally after unmuting and putting their video on, to make the Q&A more personal and to foster more dynamic interactive conversations.
- **Building in additional time in each session** for speakers to transition and screen share their slides.

- **More time dedicated for the poster sessions:** The virtual posters session was well received and attended, and it is reflected in the feedback that it would have been nice to have more time dedicated to the poster sessions. The Gather town poster session spaces were available for any attendees to login and review at any time throughout the conference; better communication regarding this may have been beneficial to some attendees that were unable to make the specified poster session times.
- **Stricter guidelines for abstract submission:** Including the “other” category and having the option to choose multiple categories to categorise the abstract ended up creating additional work to revise and recategorise the abstracts, so that they aligned with the SOC sub-groups reviewing each abstract. This led to manual changes to some abstracts to ensure they were allocated to the most appropriate category for review. It was a step that in hindsight could have been avoidable.

Conclusions

Attendance of this conference had doubled compared to the last two in person Amaldi standalone conferences, indicating that the virtual format was inclusive and allowed attendees to participate that otherwise are unable to attend the in-person conference. Overall, the three 2-hour sessions across each day allowed attendees flexibility to allocate a fraction of their day to participate in the conference. The post survey results show that 92% of people were either satisfied or very satisfied with the conference overall. The virtual platforms served their purpose well on a technical level, with minimal issues reported. The time zone conversion of the program proved problematic for some participants, however there was only 1 of 188 speakers that missed their talk time due to this. Running a successful virtual event (just like an in-person one) requires careful planning and a lot of work from the organisers, from creating a program that took into consideration time zones of each speaker, ensuring minimal overlap of talk categories in parallel sessions talks, triaging attendees’ questions in the lead up and throughout the conference, to trialing, testing and setting up all online platforms and editing and uploading recordings which does equate to a significant amount of work. Although the virtual format was well received and increased attendance, the post feedback results show that 57% prefer an in-person event and 28% would prefer a hybrid event for the next Amaldi conference.

Appendix A: Report about procedure for selection of talks

Contributed talks: We received a total of 372 abstracts which included 347 for talks and 25 for posters. It was agreed that we should limit the number of parallel sessions to 3, with the occasional 4 when absolutely required. Given these constraints, as well as the number of available session blocks, that left us with 174 available slots for the 20 min contributed talks. This meant an acceptance rate of approx. 50%. Anyone who wasn’t offered a talk spot was offered to present a poster instead.

To assess the talk abstracts, the SOC members volunteered to join a SOC sub-group corresponding to each of the conference themes/topics. Each abstract was allocated to one of the themes – this was straightforward in the instances where only one theme had been selected within the abstract submission form. However, for instances where multiple themes, or the “other” category was used, members of our SOC had to determine the most appropriate theme to put it into.

The SOC Chair nominated a Chair for each sub-group to be responsible for leading the assessment process and ensuring the sub-group made their determinations on time. Each sub-group was allowed to determine their own process for rating the abstracts, and they were required to enter

their final ratings into a shared google spreadsheet. They were also encouraged to suggest the best grouping or sequencing of talks and to select a chair for each of their sessions. Each sub-group was allocated a fixed number of sessions to fill, with each session accommodating 6 talks. The number of sessions to fill was based on the number of abstracts received in that category.

The SOC decided not to assess abstracts “blind”, although the sub-groups could choose to do so if they wished. The sub-groups were instructed to try to ensure that at the end of the assessment process there was a diversity of gender, seniority, and geographical region.

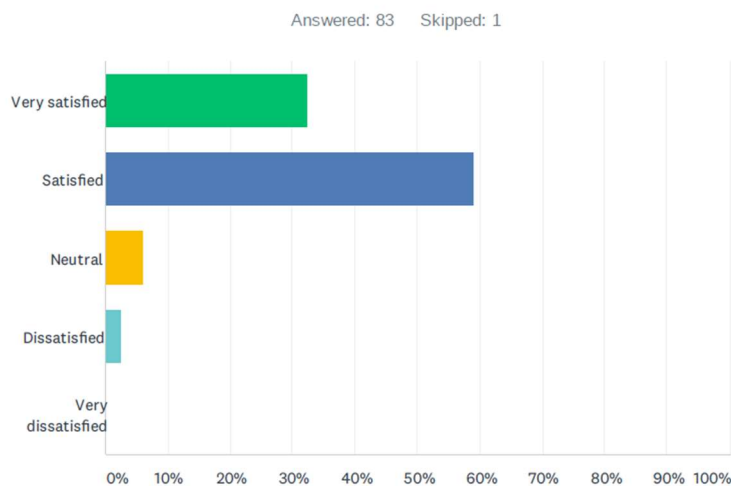
The process worked fairly smoothly. There were a couple of instances where a talk probably should have been in a different sub-group category, but we usually left it as it was categorised. As was inevitable, we had some people drop out of giving talks. The LOC would then go back to the relevant sub-group to ask for their next person in line to offer them a talk, taking into account the need to maintain appropriate diversity.

Invited plenary talks: the SOC created a list of potential plenary speakers, trying to ensure that there was good representation across many parameters including: topic/theme, gender, seniority, geographical region, while striving for high-quality speakers that would present exciting topics/results. Taking all these factors into account they came up with a short list of 12 plenary speakers who were then invited, accepted and scheduled into the program at appropriate times given their location.

Recommendation to the incoming SOC: to review the themes for the parallel sessions at the start of the planning process to ensure that they are the most appropriate ones at that time, and as all-encompassing and non-overlapping as possible.

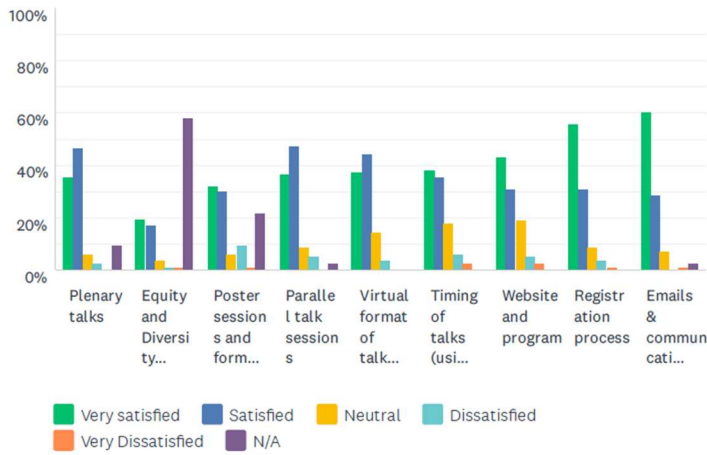
Appendix B: conference feedback

Q1 Please rate your overall satisfaction with the Amaldi14 conference



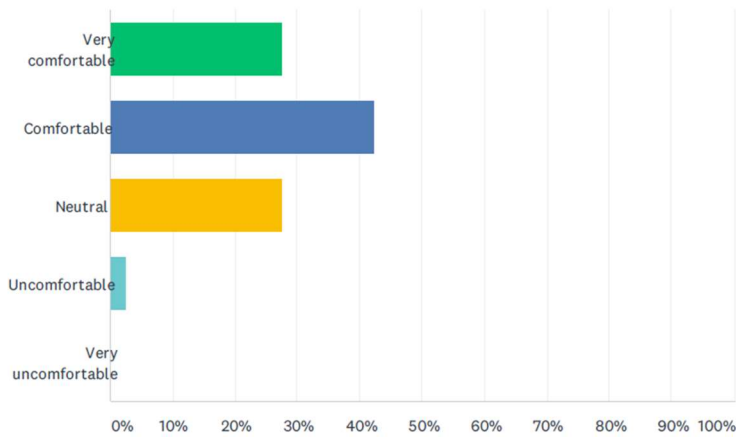
Q2 Please rate your overall level of satisfaction with the following sessions/aspects of the Amaldi14 conference

Answered: 84 Skipped: 0



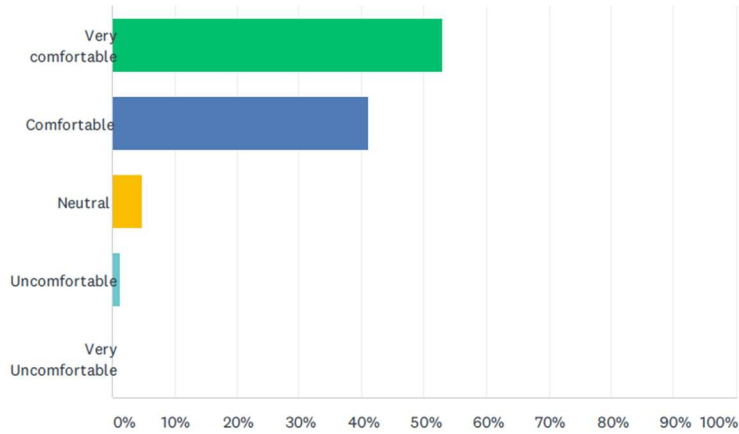
Q3 How comfortable did you feel asking questions or making comments during the week's program?

Answered: 83 Skipped: 1



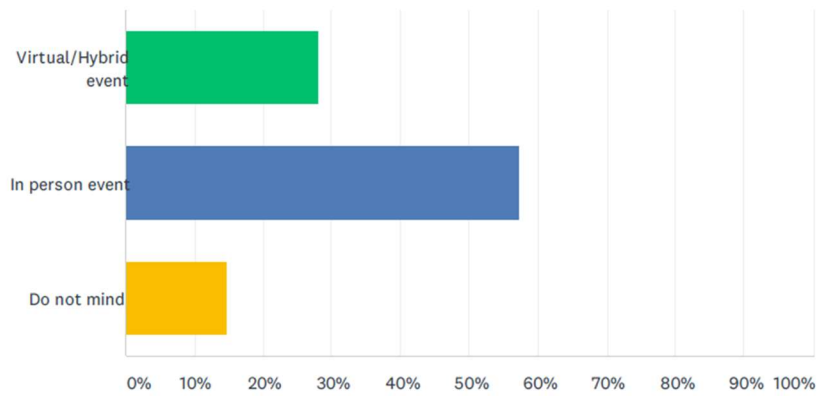
Q4 How comfortable were you with the conduct of attendees at the sessions you attended

Answered: 83 Skipped: 1



Q5 Which format would you prefer to attend the Amaldi15 conference (~2 years time)

Answered: 82 Skipped: 2



Q6

What did you like most about this conference?

Answered: 27 Skipped: 57

- | | | | | |
|--------------------------|---|--------------------|---|---------------------------|
| <input type="checkbox"/> | It did like me the virtual modality. I live in Spain and with the virtual modality, I do not need to spend money on traveling. | 8/9/2021 6:51 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | Scientific content; three time slots.. technical support to chair/speakers | 8/9/2021 2:44 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | The plenary talk and poster sessions. | 8/9/2021 12:39 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | I'd like mini courses sessions. | 8/9/2021 12:25 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | the passion and diversity | 8/9/2021 12:12 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | I liked the gather town poster presentations a lot. I could even hang around with my friends and chat with them. It was really nice. | 8/2/2021 4:29 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | The poster sessions were my favourite part | 7/26/2021 7:22 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | Poster format | | | |
| <input type="checkbox"/> | I liked the use of Gather Town for the poster sessions. | 7/26/2021 1:01 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | I really appreciated the Gather Town poster format with the advertised poster sessions. For a virtual setting it was very intuitive and allowed for some good engagement. | 7/26/2021 12:09 PM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | The sessions were split into comfortable time zones. | 7/26/2021 10:29 AM | View respondent's answers | Add tags▼ |
| <input type="checkbox"/> | Timing of sessions to help everyone participate at a friendly time. | 7/24/2021 4:59 PM | View respondent's answers | Add tags▼ |

<input type="checkbox"/>	The recordings of sessions are available and can be watched whenever I am convenient.	7/24/2021 2:56 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	The subject matter! There was a really good slate of talks and posters.	7/24/2021 5:45 AM	View respondent's answers	Add tags▼
<input type="checkbox"/>	Posters	7/24/2021 4:27 AM	View respondent's answers	Add tags▼
<input type="checkbox"/>	I think the sessions were very well timed to work for as many timezones as possible!	7/23/2021 11:32 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	The excellent plenary talks	7/23/2021 9:19 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	Organizing committee very approachable and kind.	7/23/2021 8:50 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	I was the most impressed with the organising committee's work. They were very prompt and sincere in their response to any queries and made attending this conference a highly satisfactory experience. Personally, I was a last minute addition to the list of participants, and I was very clearly guided by the organising committee.	7/23/2021 8:43 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	Organization was at it's best and so were the poster sessions which gave a nearly in-person experience	7/23/2021 8:39 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	Poster Sessions in Gather Town were a major highlight for me.	7/23/2021 8:30 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	The very interesting topic	7/23/2021 7:53 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	It kept up the Amaldi tradition of giving a good overview in the field. I appreciate that talks have been recorded due to time zone differences. My contact with the organizers was very good, I got clear instructions and quick answers. Thank you for all the effort in the background. With regards to the climate, I also appreciate the online format.	7/23/2021 7:49 PM	View respondent's answers	Add tags▼
<input type="checkbox"/>	The range of topics covered and the poster presentation format.	7/23/2021 7:43 PM	View respondent's answers	Add tags▼

- Gather Town
 7/23/2021 7:41 PM [View respondent's answers](#) [Add tags▼](#)
- Organizations, kindness of people, talks
 7/23/2021 7:27 PM [View respondent's answers](#) [Add tags▼](#)
- Quality of speakers
 7/23/2021 7:23 PM [View respondent's answers](#) [Add tags▼](#)

Q7

What would you like to see improved for the next Amaldi?

Answered: 27 Skipped: 57

- If pandemic permits, return to in person or at least hybrid format.
 8/9/2021 2:44 PM [View respondent's answers](#) [Add tags▼](#)
- NA
 8/9/2021 12:39 PM [View respondent's answers](#) [Add tags▼](#)
- N/A.
 8/9/2021 12:25 PM [View respondent's answers](#) [Add tags▼](#)
- from a lay observer's pov,, really can't suggest anything. thank you!
 8/9/2021 12:12 PM [View respondent's answers](#) [Add tags▼](#)
- more parallel sessions to give the chance to present proper talks to more attendees
 8/6/2021 8:15 PM [View respondent's answers](#) [Add tags▼](#)
- I would like to request an easy mode of registration next time, especially for overseas students. I faced some difficulties while completing my registration (mostly regarding the payment method).
 8/2/2021 4:29 PM [View respondent's answers](#) [Add tags▼](#)
- Maybe a more informal social session for early career researchers to get to know each other, especially useful if the next conference will also be virtual
 7/26/2021 7:22 PM [View respondent's answers](#) [Add tags▼](#)

- More variety of topics talk
 7/26/2021 6:24 PM [View respondent's answers](#) [Add tags▼](#)
- Less parallel sessions
 7/26/2021 4:10 PM [View respondent's answers](#) [Add tags▼](#)
- For the parallel talks, it would have been good to have a one minute "intermission" between each talk to allow for participants to switch to talks on other zoom links.
 7/26/2021 1:01 PM [View respondent's answers](#) [Add tags▼](#)
- On the lines of my last answer, were the conference to be held virtually again, I would suggest having two sets of poster sessions, with the scheduling rotated between the two so that everyone gets the chance to easily interact with all of the poster presenters regardless of timezone.
 7/26/2021 12:09 PM [View respondent's answers](#) [Add tags▼](#)
- Maybe good to have slack channels or breakout rooms for discussions. It's hard to follow up otherwise with limited time.
 7/26/2021 10:29 AM [View respondent's answers](#) [Add tags▼](#)
- More of an emphasis on instrument science, with second emphasis on data analysis. Amaldi is the premier world conference for GW instrument science, and I felt that this Amaldi was more like "Marcel Grossman Lite" or "GR Lite".
 7/25/2021 11:34 AM [View respondent's answers](#) [Add tags▼](#)
- Parallel sessions tended to be narrow "silos" around traditional divisions in the field (e.g. LVK working groups). Would like to see sessions organised cutting across disciplines, getting people who normally don't interact talking with each other.
 7/24/2021 4:52 PM [View respondent's answers](#) [Add tags▼](#)
- I felt that the science topics were somewhat biased and overlapped a few times in the conference. It would be better to arrange the scientific program more carefully.
 7/24/2021 2:56 PM [View respondent's answers](#) [Add tags▼](#)
- Hopefully an in person conference (obviously if circumstances will allow!)
 7/23/2021 11:32 PM [View respondent's answers](#) [Add tags▼](#)
- more round-table style discussion, taking care to include early-career participants
 7/23/2021 9:19 PM [View respondent's answers](#) [Add tags▼](#)
- The poster sessions could have been for longer. Other than that my only hope and wish is, the next conference could be held in person.
 7/23/2021 8:43 PM [View respondent's answers](#) [Add tags▼](#)
- Despite all these, I think nothing can match an in-person meeting and the discussion we have with the attendees during the meeting. So I hope we can have a physical meeting next time.
 7/23/2021 8:39 PM [View respondent's answers](#) [Add tags▼](#)

- Do not make 3 short blocks. Make the conference for a given time zone.
7/23/2021 7:53 PM [View respondent's answers](#) [Add tags▼](#)
- I think a kind of virtual coffee break might be useful to foster interaction with the other participants.
7/23/2021 7:49 PM [View respondent's answers](#) [Add tags▼](#)
- A slack channel for discussions would be a nice addition.
7/23/2021 7:43 PM [View respondent's answers](#) [Add tags▼](#)
- The program on a google spreadsheet was terrible (extremely slow, fixed timezone). Most conferences of this size have a decent web interface that, for instance, displays the timezone of the user instead of a fixed choice decided by the organizers.
7/23/2021 7:40 PM [View respondent's answers](#) [Add tags▼](#)
- I personally think that the poster session run on gathertown does not provide enough visibility to the presenters. I'd rather prefer or a standard in-person poster session (if possible, of course), or, even better, 5-10min pre-recorded talks. By the way, I very much enjoyed this Amaldi14! thanks to the organizers
7/23/2021 7:28 PM [View respondent's answers](#) [Add tags▼](#)
- Amaldi conferences should definitely switch to a proper conference management tool, as opposed to a mix of webpages, Google documents and dropbox. The standard in the high-energy-physics community is CERN's Indico software <https://getindico.io> and that would certainly be a good solution for future Amaldi meetings. Using Indico would not only make things easier for the participants (a single entry point providing access to all resources) but also for the organization team. For instance in Indico registered participants can directly upload their slides or posters w/o the need of an FTP-like step that requires then manual interventions. Also, I don't understand why talks are not directly available, at least to the registrants. Again, this is something that would be given almost for free using a solution like Indico...
7/23/2021 7:28 PM [View respondent's answers](#) [Add tags▼](#)
- In person event
7/23/2021 7:27 PM [View respondent's answers](#) [Add tags▼](#)
- Once we have recovered mostly from covid, instead of all flying to one spot, I would like to see local hubs with local activities as well as plenary activities. All to reduce our impact.
7/23/2021 7:23 PM [View respondent's answers](#) [Add tags▼](#)