

Group meeting guidelines

So, you've been asked to run the group meetings in your group. This document offers some guidelines to help you in your new role as chair.

Goal of the group meeting

The first question any group meeting chair should ask themselves (preferably in consultation with the rest of their group) is: what purpose do you want the group meetings to serve?

Typical goals include:

- Helping to ensure that group members know what other members are working on;
- Helping group members stay on top of recent developments in their field (e.g., by sharing the burden of uncovering interesting arXiv articles or journal publications and seeing how they fit into the bigger picture);
- Providing a platform for a group member to leverage the diverse expertise in their group to help them solve a problem in their research;
- Providing a platform for a group member to recruit collaborators to a project;
- Providing a venue for having an open-ended discussion about some topic of broad interest.

The best format for the group meeting will depend on what the goals are.

One of the common failure modes of a group meeting is for it to become just another seminar series (for internal speakers). So although group meetings are a good way for group members to learn a bit about what other members are doing, it is important to guard against this slippery slope. One solution is to not have any presentations of completed research projects by pushing all such presentations into the group's seminar series. If one *does* include research presentations by group members, then there are still tricks for keeping them more informal and more open to discussion, such as insisting that speakers only use the blackboard.

Format of your group meeting

There are a number of tradeoffs that are relevant when deciding on the format of group meetings:

Quality of the discussion versus the burden of preparation

The quality of the discussion tends to be proportional to the amount of time the discussion leader and the discussants have prepared (for instance, by selecting a topic and some reading material on that topic ahead of time) but this increases the burden on the discussion leader.

One way to alleviate the burden of preparation is for the group meeting chair to set up a schedule wherein the role of discussion leader rotates among the members of the group.

Breadth of participants versus the depth of the discussion

Every group meeting chair must decide how wide to cast the net when sending out invitations to the group meeting. On one end of the spectrum, the invitation could go to all researchers at Perimeter, while on the other end, it could be a select group of researchers who self-identify as

being within some field. A broader scope holds the possibility of serendipitous discoveries across fields of interest, while a more select group has the advantage that the level of discussions can typically be higher by virtue of having a shared language and paradigm.

One approach to this tradeoff is to forego breadth for the usual group meetings, but to have the occasional meeting that is dedicated to the goal of more interdisciplinary interactions, for instance, by organizing the occasional joint group meetings of two groups, or inviting a member of another group to present or lead a discussion at the group meeting.

Number of participants versus inclusiveness of the discussion

Group meeting chairs have a duty to ensure that group meetings have an atmosphere where everyone in the group has an opportunity to contribute and feels comfortable doing so. It is useful to bear in mind that group meetings (compared to more formal meetings such as seminars) are the venue in which more junior researchers (students especially) and researchers with a less extroverted personality typically feel most comfortable contributing. (Incidentally, this is another reason why it is important to avoid having a group meeting becoming yet another seminar.) As the number of participants grows, so does the intimidation factor and there are fewer opportunities for any given member to contribute.

Openness to visitors versus free exchange of ideas

If a group member is asked to speak to the group about ongoing research, such as a new and half-baked idea, then that group member might be reluctant to do so for an audience that is so large that its members have effective anonymity, or for an audience that includes researchers they do not know, such as visitors to Perimeter.

One solution that has been used by some groups in the past is to make it the prerogative of the presenter to decide whether visitors are welcome to attend the group meeting or not.

Brevity versus the depth of the discussion

A short meeting is less of a burden on everyone's schedule, but will necessarily limit the possibilities for going deeply into a topic. One can always keep meetings short and have interested parties continue the discussion afterwards. One can also opt for longer meetings, but run these less frequently, so that the burden is eased. We also recommend experimenting with the format.

IT tools

There are several IT tools that may help you in your task. First, your mailing list that you use to send out group meeting invitations and reminders. The IT department can create a Google group with its own email, for instance, "cosmology@perimeterinstitute.ca". All members of the group receive an email when you send an email to this mailing address. In fact, the group meeting organizer of a given group becomes the manager of the Google group and it is their responsibility to make sure that the list is up to date.

Second, for arXiv discussions, [bentyfields](#) is a convenient website with a nice layout where people can vote (and volunteer!) for articles. [Voxcharta](#) is another such platform with a slightly less appealing design.

Third, it can be useful to set up a shared google sheet with the members of the group, specifying the dates of group meetings and assigning discussion leaders to these.

Room bookings

This is best done by the group meeting chairs themselves on the portal. You can you book a room for the entire year (with the exception of days when the room is reserved for conferences or other meetings that take priority).

Rotation of chair

There shouldn't be too much of a burden placed on a single postdoc, so it is recommended that the term of the group meeting chair should be one year. Group meeting chairs should remind faculty when their term ends.

For the admin person responsible for group meetings

If there is a last minute scheduling of colloquium, then the announcement should go out early enough that group meeting chairs can find out and reschedule accordingly.

Academic year 2018-2019

Here, we have collected experience from different groups illustrating the diversity of the different formats so that one can consult with different groups if one is interested in changing the format.

Condensed matter (Emilie Huffman): The machine learning group (which overlaps with condensed matter) has weekly group meetings in the Sky room led by Estelle Inack. It's fairly informal and people volunteer to talk about their recent papers/research over the Slack channel. Sometimes condensed matter guests come to PI who would like to discuss their research more informally than in a seminar--we also have them speak in this venue, and advertise that to all condensed matter people. I think that the discussion has worked well--questions are flowing much more freely in the group meeting context than they would in a seminar format. Ideas for discussion points also arise organically in the Slack channel during other days of the week. Anywhere from 5-20 people will show up each week.

Cosmology (Béatrice Bonga): Given the diversity of cosmologists at Perimeter ranging from data analysis for CHIME to quantum cosmology, the group meetings are an avenue for people to learn about each others' research and to stay-up-to-date with field. Therefore, the time for an individual speaker is limited in the hope that only the big picture and the key ingredients are conveyed, and technical details of the calculations or data analysis are omitted.

The group meeting is split into two parts. During the first part, someone has prepared to summarize a recent arxiv article for 5-10 minutes and I ask the group if there are any other interesting, noteworthy papers or results (including discussion this typically takes 25-30 minutes). Presenters are free to choose an article they consider interesting, but encouraged to pick ones with many votes on benty-fields. During the second part, a group member summarizes some of their recent research. I strongly encourage the use of blackboard and tell the speaker not to prepare for more than 20 minutes (including discussion this is typically 30-35 minutes).

As a chair, I "volunteer" speakers for every week and keep an up-to-date Google Sheets document for everyone to see. The week before I send a "reminder" email to the speakers that it is their turn next week. Most of the time, speakers oblige (sometimes they cannot make it and fail to let me know beforehand). Occasionally, some - typically more long term - visitors to PI present as well.

At the beginning of the academic year (late September), I organized a research jamboree. One group meeting plus lunch (which was paid for with the cosmology seminar budget), we met in the second floor bistro and everyone introduced themselves and what they work on in 3-4 minutes. This was a very nice way to get to know everyone as the cosmology group can be as large as 50 people including researchers of nearby institutions (of which typically 30 attend regularly).

Mathematical Physics (Theo Johnson-Freyd): In 2017-18, the group meeting met alternate weeks. Each meeting consisted of a presentation by an in house speaker, usually either a graduate student or postdoc. The talks were not formal or practiced, but rather were about work

in progress. In 2018-19 the group meetings sort of fell away, because I wasn't very good about recruiting speakers. Instead, we used the slot occasionally when we had two different "seminar" speakers on the same day.

Particle Physics (Davide Racco): There are not many people in our group (usually up to 10-15 including visitors), so that the daily discussions at lunch or the weekly group seminar offer enough opportunities to everybody to get involved into physics discussions.

Quantum fields and strings (Zachary Fisher & Lorenzo Di Pietro): We typically have two people leading the discussion in the hour, each person getting 30m. Typically, we have a more senior person (postdoc or faculty) paired with a less senior person (usually a PhD student). We prefer local speakers, i.e. people affiliated with PI or UW, or long-term visitors. They are allowed to talk about whatever they like, but we suggest talking about their recent research (in any stage of completion!), or a summary of an ArXiv paper. We also try to get people from different areas of QF&S in each hour-long session, e.g. one presenter might be a bootstrapper while another might be working on complexity. We did that in order to encourage people to come to hear about ideas that they typically wouldn't spend time on. Mostly, we have blackboard talks, although some people do slides and that's okay.

This format has mostly worked pretty well, although it ends up being a bit more formal than we would like. It might help to experiment in the future with having a smaller group of people invited to these meetings, i.e. just the local QF&S community. However, having it open to the world has been a benefit in other ways--we have had some great conversations with people from other sub-disciplines like QI and QG.

One great thing about this format is that almost everybody in our department has given a talk this year. It hasn't been too hard to convince people to give talks, because 30m is pretty short. However, some people struggle to keep their discussions to just 30m; we have started being more flexible and allowing people a full hour in that case.

Quantum foundations (Thomas Galley): The meeting is run every two weeks, and each meeting is moderated by a different member of the group. I assigned a meeting to every member of the group for them to organise. The format of the meeting is up to the moderator. Typically the organiser might present some topic and moderate a discussion around it, though they can also present a paper or even ask other people to help with running the meeting (for instance by presenting different sides of a debate). The meeting length is 1-2 hours, where we stress that there is no obligation to stay for the whole duration of the meeting if a participant does not feel it is productive for them. As a coordinator I help out if the moderator is not sure what to do for the meeting, and we have a shared document where we suggest (and vote on) suggestions for topics. This document also contains all the dates and information related to the group meetings. The meetings are typically only open to members of the group and their visitors.

Quantum gravity (William Donnelly): For the weekly meetings of the group, we tried a new format. Instead of assigning slots to group members to give presentations of their research, we encouraged everyone to come up with an interesting paper they have read the last week or an

interesting question they would like to discuss in the group. These discussions usually took 1-1 ½ hours. While this format has stimulated several interesting discussions, only a part of the whole group engaged in presenting and discussing papers. After a time, it often defaulted to the group meeting chair presenting an interesting paper and leading the discussion. To avoid the chair preparing the meeting each week, we returned to the format of having a one hour black board talk. To change things up, we are started to invite other researchers from PI and local universities working on quantum gravity to facilitate exchange and communication across approaches. For the future we intend to move to two 30 minutes talks per meeting.

Quantum information (Daniel Gottesman): The group meeting is an hour-long informal talk. I encourage the speakers to emphasize open problems or work in progress. The talks are open to anyone at PI, but beyond an initial mailing, I only announce them to the mailing list. Many people at IQC are on the mailing list as well. The speakers are always locals, with others speaking at the regular seminar. I actively recruit speakers, but am open to volunteers as well (although that seems to rarely happen). I try to have the most talks from PI quantum information people, particularly those who will be leaving soon, with a mix of others -- people from other fields at PI or people from IQC or other local universities.

Strong gravity (Luis Lehner/rotating chairs): These weekly meetings are relatively informal. At the end of every meeting, a new chair is appointed whom is responsible for organizing the next meeting. The chair finds one or two people to present a paper, an interesting idea or their own work for about 10-20 minutes. The informal atmosphere allows for many questions and interactions with the speaker so that these short presentations end up taking significantly longer. If group members have attended a conference, they are also asked to share what they learned with the rest of the group. The group meeting typically is ~1-1.5 hours. The chair is also responsible for sending out an announcement email a day or so before and reminder email on the day of the group meeting.

Underground Holography Meetings (Zachary Fisher): These are the meetings we held to get people from QI, QFT, QG, etc together to talk about our common interests in holography and other cross-subdisciplinary work. These were “underground” only in the same way that, say, strong gravity meetings are underground--we had a mailing list that we used for invites, but technically anybody could show up. We encouraged presenting incomplete ideas and having blackboard discussions. One person has the full hour in these meetings. An informal atmosphere was explicitly cultivated. It was good to have a space to present unfinished ideas and calculations and solicit feedback from this community. I think having the meetings be semi-underground helped with this goal. Typically about 10-15 or so people showed up each meeting, which is around the right size for a gathering like this.