

Master's in Mathematical and Theoretical Physics

Guide to Oral Presentations (Student version)

Each student is required to give a presentation to their supervisor and at least one other person with some expert understanding of the area who could be a graduate student or postdoc. The presentations are informal and can take place in the supervisor's office, a meeting room, or classroom as available or over teams if necessary. Presentations are intended as an opportunity for students to get practice presenting and explaining their work and to help supervisors appraise and feedback to students. The student is expected to prepare a presentation of no more than 15 minutes, and a total of 25 minutes should be allowed to include questions from the audience. They should take place at the end of Hilary Term or at the beginning of Trinity term with time for students to incorporate feedback ahead of the deadline (final submission deadline is **Monday week 6 of Trinity term**).

The presentations are not formal vivas, graded as a component of the dissertation assessment, although supervisors do take the candidate's performance in the oral presentation and supervisory meetings into consideration when assessing the written dissertation. You are not required to wear sub fusc. Your supervisors will advise whether you may attend other students' talks on a similar topic. After you have given your presentation there will be time for questions and discussion. This will give your supervisor an opportunity to test, through questioning, your understanding of the material included in the project. This should help to clarify the structure of your dissertation and the level of details required.

You may prepare slides for the presentation and then share your slides during the presentation. Since you are likely to have mathematical equations in the presentation, LaTeX is recommended. There are various LaTeX classes for creating slides including the beamer class. A sample file using the beamer class can be downloaded from:

<https://www.maths.ox.ac.uk/members/students/undergraduate-courses/teaching-and-learning/projects/essays>.

An alternative to using slides is to give a blackboard or whiteboard presentation. This will require a similar level of preparation to writing slides and you will still need to decide carefully in advance exactly what points you wish to make and write on the board.

Before writing the presentation, it is worth writing an outline of the talk in the form of a few bullet points to make clear what you will cover. You should describe the problem you have studied and why it is interesting. One model for the remainder of the talk is to describe the methods you have used to approach the problem and your key results and conclusions. Remember that it is not necessary to describe all the work you have done; in fact, this will likely be impossible within the time limit. Your audience will appreciate a coherent description of a portion of your work much more than a high speed and difficult to follow presentation of all that you have done. It is appropriate to aim the level of your talk at a fellow OMMS/Part C student doing a similar selection of courses but not having specialised in the topic of the dissertation.

How many slides you prepare is partly down to subject area and personal preference. If you have more than one slide per minute, you almost certainly have too many. However, up to 15 slides may be appropriate if you have a lot of figures and results that can be discussed fairly quickly. Otherwise you should probably allow 2-3 minutes per slide. Regardless of how many slides you have, it is sensible to prepare the key points you would like to make about each slide and then practise to check the presentation takes about the right amount of time. Similarly, if you plan to give a handwritten presentation, you should practise this in advance to check you have enough time to write and discuss everything you intend. One benchmark is that, when preparing a presentation for a whiteboard/blackboard talk, one page of actual notes to be written on the board is likely to be sufficient for 15 minutes.

When you make the slides, you should ensure that the font size is large enough to read from a distance and that there is not too much information on each slide. It is recommended that you avoid fancy backgrounds and special effects (e.g. moving type) as these tend to distract the audience. Overlays (where parts of the slide are revealed at once) can be effective if used relatively sparingly.

Giving proper credit for any material copied or adapted from other sources is just as important in a presentation as it will be in your final dissertation. In particular, remember that if you include a figure in your talk that you did not generate yourself, then you must state where it came from. Text taken from other sources must of course also be appropriately quoted and cited – for Oxford's policy on plagiarism, see <https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism?wssl=1>.

When you give the talk remember to face the audience and speak clearly. Make sure you explain the key points on each slide and be sure you explain the important features to pick out from figures and tables of results. Avoid reading from a script: the commentary may be a little less perfect this way, but it is usually more natural and engaging which helps to retain audience interest.

The presentation will give you a chance to step back from the minutiae of your dissertation to think about how its overall structure, impact and narrative (or that of a section) is going. This should be a useful opportunity ahead of completing the writing up.