

## Some tips for your oral presentations

- Read [Talks are not the same as papers](#) (Terence Tao's blog)

## Mathematical Content

The mathematical content should be correct and fully understood.

## Clarity and organization

- Give a quick overview (2-3 minutes) of what your presentation is about with a clear message, and try to connect to previous presentations.
- When stating a Definition or a Theorem / Proposition / Lemma try to:
  - give an example (if applicable)
  - explain the intuition
  - say why it is important
- When presenting a proof:
  - give an outline in words of main steps / strategy
  - refer to this outline when giving detailed proof
- $2 \times 45$  minutes is short:
  - select what you view as crucial
  - prepare pre-written notes or transparencies
    - \* to recall previous results and definitions
    - \* to fast forward in your presentation if needed
  - Never go over time (if there isn't enough time to present all of the material, make appropriate choices about which material to omit)
  - Rehearse!

## Presentation Style

- Make an effort to write in a clean fashion
- Pace is not too fast or slow
- Try to engage with the audience

## **Characteristics of an excellent talk: the content is presented in an interesting and engaging way. The audience will learn from what is being presented.**

The presenter carefully chooses the focus of the talk based on an understanding of what the audience will find interesting and then uses that focus to decide which content to include and which non-essential content to omit. The presenter anticipates what the audience will need in order to understand the material. For example, the presenter is aware of the knowledge-level of the target audience and provides any reminders or new information the audience needs to understand the presented content. The presenter provides context for details: for example, the presenter clearly states the focus of the talk and the purpose and relevance of chunks of detail within the talk.

The talk is robust: if an audience member misses an important point or stops paying attention to think and then starts paying attention again a minute or two later, it is possible to figure out what's going on (e.g., important points are written on the board, repetition is used strategically, and reminders are given as needed). The presenter gives the audience time to absorb difficult concepts (e.g., by providing an example or a conceptual explanation to reinforce the concept)

The presenter places emphasis on the most important points while de-emphasizing subsidiary details, for example by using examples to efficiently communicate basic concepts while reserving formal treatments for the subtler points that need such treatment; by carefully presenting the interesting aspects of a proof while summarizing or omitting less-interesting details, and by using voice, body language, eye contact, and board work to indicate the relative importance of presented information.

The presenter uses “showwomanship/showmanship” to elicit interest, excitement, mystery, curiosity, etc., for example by posing well-chosen questions and commenting about what's interesting or surprising about the content.

No habits or awkwardness of visuals or delivery detract from audience enjoyment of the presentation. The presenter monitors audience interest (for example by watching facial expressions), and adjusts the presentation as needed. Rather than merely presenting content, the presenter guides the audience to discovery. In other words, the presentation is engaging.