

How to give a good talk?

Content Level, Organization and Boardwork

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- (Discussion)
 - What characteristics make a good talk?
 - When preparing for talks, what do you do to make your talk better?
- Here is an example of talk notes. Is it clear to you what the flow is? How can we improve the note without changing the contents too much?

Let E/\mathbb{C} be an elliptic curve. We say

E has CM if

$$\text{End}_{\mathbb{Q}}(E) \neq \mathbb{Q},$$

$$\text{where } \text{End}_{\mathbb{Q}}(E) = \text{End}(E) \otimes_{\mathbb{Z}} \mathbb{Q}.$$

$$E: y^2 = x^3 - x$$

Prop. $\text{End}_{\mathbb{Q}}(E)$ is imag. quad.

$$E \cong \mathbb{C}/\mathbb{Z}\omega_1 \oplus \mathbb{Z}\omega_2$$

$$z := \frac{\omega_1}{\omega_2}$$
$$\vdots$$

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3. Some concrete tips about preparing for notes.

Before beginning to write notes, think about:

- Length: How many pages of note give an one-hour talk?
- Contents: Motivation, Background, Examples, Theorems, and Proofs.
- Flow: State the main theorem or goal as early as possible
 - Theorem -> Ingredients of the proof -> Proof
eg. Fermat's last theorem
 - Motivation -> Background -> Theorem -> Proof ideas
eg. Technical theorems

While writing notes, keep in mind the two principles:

- Write on the notes exactly what you want to write on the board.
- Audience should be able to understand the structure of the talk from the board.

More concrete tips:

- Environment: Cut sections and paragraphs clearly
 - Write down "Section", "Definition", "Theorem", "Proof", etc.
 - To mark the end, draw a horizontal line or start a new board
- Line Control: Always start a new sentence in a new line
- Transition: Make clear the transition between sections or paragraphs
- Example: Example -> General Theory or General Theory -> Example
- "Key words" are easier to read than "full sentence".
- Avoid heavy notations
- Introduce notations one by one
- Use abbreviations only if it is well-known or after it is introduced
- "Arrows" are easier to follow than "where"

4. Some concrete tips about boardwork.

- Clear Writing
 - Erase the board completely
 - Write large enough
 - Separate characters, especially names
 - Color chalks: "yellow, orange" are clearer than "red, blue".
(The latter can be used for circling or drawing a curve.)
- Use Board space linearly
 - Draw vertical lines to divide the board into suitable widths
 - Write from up to down, left to right
 - Align text to the left
 - Measure the board and decide where to write what beforehand
(for extremely important talks)

5. Feedback forms for talks

What was a good thing about the talk?

What was a good thing about the talk?

What was a thing that could be improved about the talk?

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Rate your mathematical understanding of the talk:

Rate your mathematical understanding of the talk:

1 2 3 4 5

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