How to Give a Math Talk

Advice to Undergraduates

Practical Advice For All Talks

Speak loud enough

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Practice!!

Intimidating Equations

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Reveal equations one part a time

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Reassure the audience you don't expect them to completely understand the equation at first, and go slow

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to impact policies/laws

to inform

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to start a conversation

to get a job/to get into grad school

to sell something

to have fun as the speaker

to get a good grade

to learn the material better yourself

other

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A common one is “what are the applications of this work?” It’s ok if your answer is “none” (but don’t stop there!)

Activity

Take a minute to summarize your research question in one or two sentences. Try to use mostly english words.

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Translate your sentence using only the ten hundred most common words. https://splasho.com/upgoer5/

Jargon can be helpful

Choose which things you want to define rigorously and which things you want to give the feeling of

Is the technical definition necessary to make your point? Is it interesting?

Analogies and Metaphors

Connect a more complicated idea to one your audience knows

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"A module is **like** a vector space, but the coefficients live over a ring, not $\mathbb{R}$."

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Your turn! Brainstorm a metaphor or analogy for the project you're working on now.

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Another story: people in the past wished they could do X, but they didn't know how. Person A invented the concept of Y, then that was improved by Person B, etc.

https://mathcomms.com/

Big hat tip to Samuel Hansen and Evelyn Lamb!