universität freiburg

Giving a Presentation

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Slides originally from Wolfram Burgard

Robot Learning Lab

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With Every Presentation ...

.... you present yourself and your work

Agenda

- The Slides
  - Content
  - Layout
- The Presentation

The Slides

The Slides

- Typically **done long before** the presentation
- And long enough to **practice**
- They are used to better **convey the message**

- Their purpose is **not** to allow you to **read off what you want to say**

Many Scientific Presentations have Similar Outlines

1. Introduction and Motivation
2. State of the Art
3. Our Approach
4. Results
5. Conclusions and Future Work

- This or a similar slide exists in many presentations
- Maybe it is better to leave it out if your presentation is short.

Introduction and Motivation

Describe

- the problem
- why it is relevant
- the open question
- in which way your approach provides an answer to this question

- **Why should people care about your work?**

State of the Art

- **Mention relevant approaches** presented in the past.
- Explain in which way the approach presented in this paper goes **beyond the previous ones**.
- The art lies in finding the right balance between achievements and limitations
- Explain what the approaches do and what they solve (make the authors happy)
- Explain in which way your approach is better (without making the authors of previous work unhappy)

The Approach

- This part of the presentation is **not intended to demonstrate your skills**
- It is intended to **let the audience understand how your approach works**
- Provide the audience with the **technical details** and the **intuition**
- Use **graphics and/or examples** to explain technical details

Algorithms are Hard to Understand

Algorithm 1 Coverage(S)

$C \leftarrow S$ //*Set the current node to* S
$\mathcal{P}_{aux} \leftarrow C$
$\mathcal{P} \leftarrow \emptyset$
while 1
  $\forall n \in \mathcal{P}_{aux},\ m \in \mathcal{N},\ \|c_n - c_m\| < M_{\mathrm{R}} \cdot e_{\mathrm{cell}}$
    $\mathbf{visited}(m) = 1$
  $\forall n \in \mathcal{P}_{aux},\ m \in \mathcal{N},\ \|c_n - c_m\| < 2M_{\mathrm{R}} \cdot e_{\mathrm{cell}}$
    $\mathbf{overlapped}(m) = 1$
  $\mathcal{N}_C \leftarrow \{n \in \mathcal{N} \mid \|c_n - c_C\|_\infty = (2M_{\mathrm{R}} + 1) \cdot e_{\mathrm{cell}}$
    and $\mathbf{overlapped}(n) = 0$ and $g(n) < \infty\}$
  if $\mathcal{N}_C \neq \emptyset$
    find $M \in \mathcal{N}_C$ with minimal g
  else
    $\mathbf{D^{*\prime}}(C)$ and stop at $\mathbf{visited}(M) = 0$
      or $\|c_M - c_o\|_\infty = e_{\mathrm{cell}},\ o \in \mathcal{O}$ and $\exists n$,
      $\mathbf{visited}(n) = 0, \|c_M - c_n\| < M_{\mathrm{R}} \cdot e_{\mathrm{cell}}$
    if no such node M exists
      return $\mathcal{P}$
    end
  end
  $\mathcal{P}_{aux} \leftarrow \mathcal{P}_{aux}(C, M)$
  $C \leftarrow M$ //*Set the new current node*
  $\mathcal{P} \leftarrow \mathcal{P} \cup \mathcal{P}_{aux}$
end

[Dakulovic et al., IFAC 2011]

Better…

- Describe the idea
- Give examples to describe how it works
- Design the examples so that all (relevant) features of the algorithms can be explained
- Provide the audience with the intuition

The Results

- The results should **back up your claims**
- With them you **demonstrate** that your approach has the desired **features**.
- They should also **demonstrate** that the approach you present is **better than previous ones**.

Conclusion and Future Work

- Again, **describe the contribution** of this paper
- A good first sentence starts with “We presented a novel approach to …”
- Explain the **key idea of the work**
- Maybe talk about limitations that might lead to future work

Seminar Talks about Other People's Work

- You might add slides describing your opinion about the paper
- Tell what you regard as positive aspects
- Tell which potential improvements you see
- What would you have done differently?

Text

- Use Arial (Body)
- Use
  - dark text on light background (easy to read)
  - light text on dark background (not so easy to read)

Left-aligned text is easier to read
than centered text

- Avoid putting too much onto one slide (avoid clutter)

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Text Colour

- Check readability
- Check readability
- Check readability
- Check readability
- Red and green are hard to distinguish for a large fraction of the population

- Check readability, maybe ask others!

Text Size

- Make sure that everyone can read the text (32Pt)
- Make sure that everyone can read the text (28Pt)
- Make sure that everyone can read the text (24Pt)
- Make sure that everyone can read the text (20Pt)
- Make sure that everyone can read the text (18 Pt)
- Make sure that everyone can read the text (16 Pt)
- Make sure that everyone can read the text (14 Pt)
- Make sure that everyone can read the text (12 Pt)

- The caption should not be smaller than the text on the slide

Abbreviations

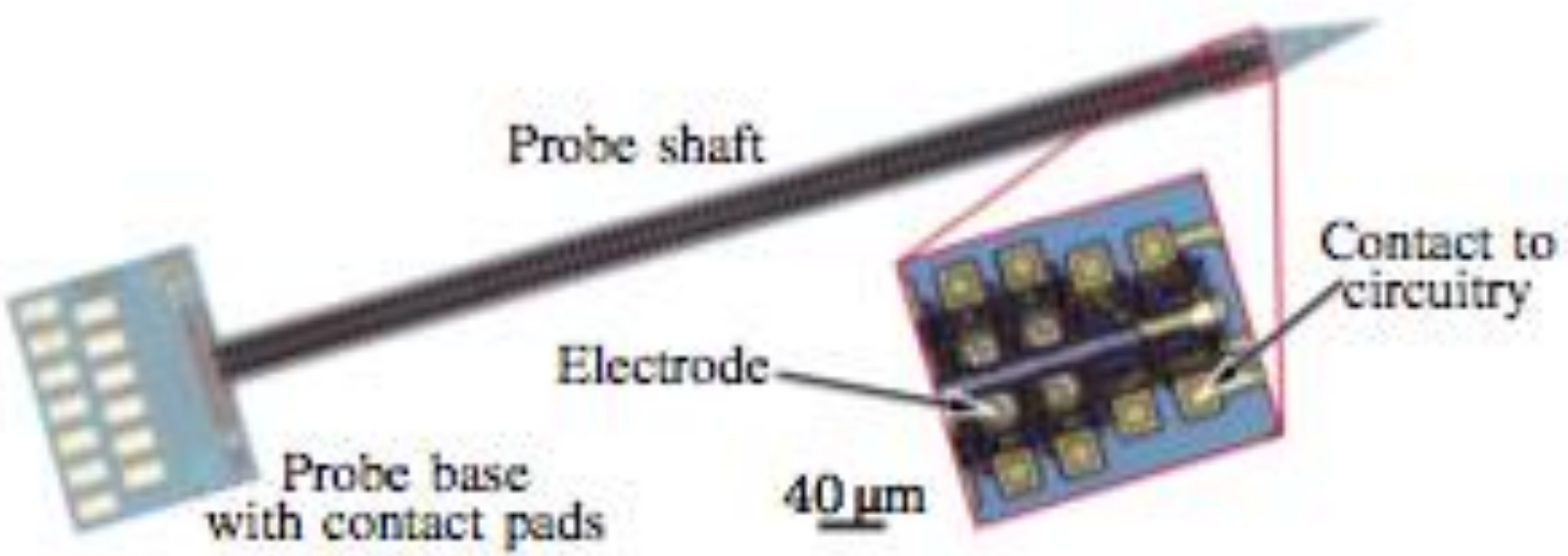
- Abbreviations might reduce the length of your presentation but might make it harder to understand
- They make you appear like an insider while they likely make others feel like outsiders

- Avoid abbreviations (unless they are very, very common)
- Especially avoid uncommon abbreviations in titles

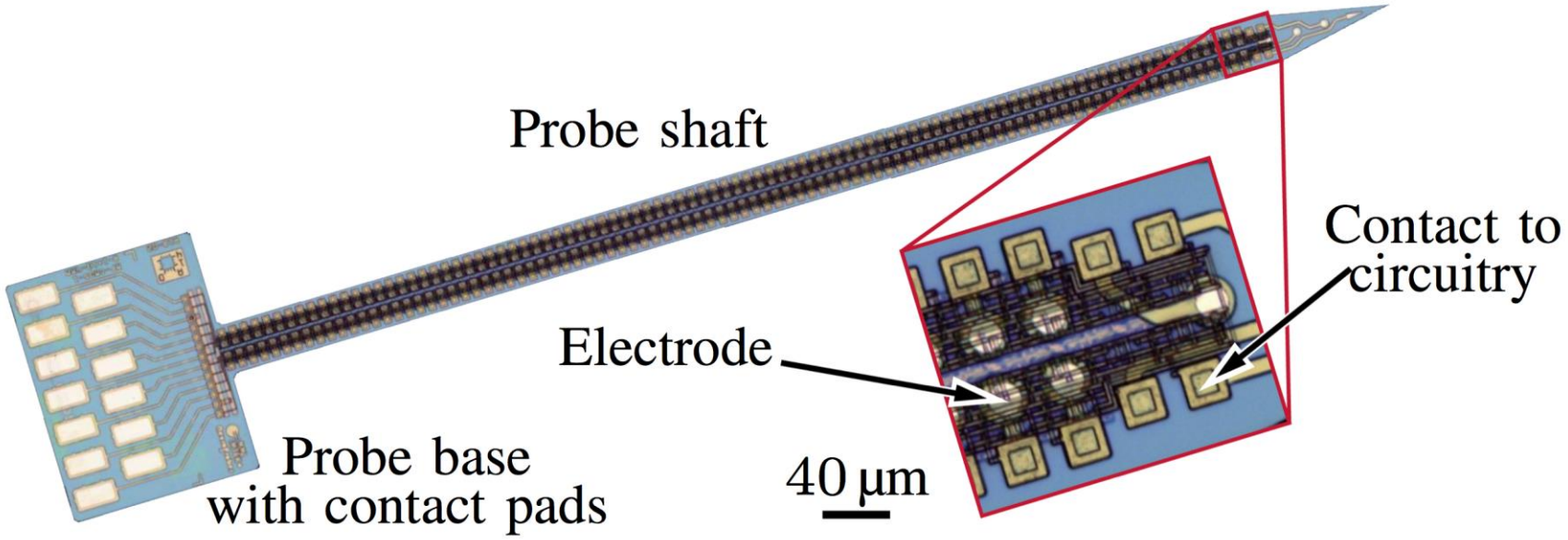
Images

- Prefer **vector graphics** over images
- When grabbing an image from the source paper, make sure you do this at the highest resolution
- Enlarge the picture as much as possible before grabbing it
- If you can **see the individual pixels, consider redrawing the figure**!
- To check, attach your computer to an LCD monitor and check the quality by going close to the screen.

A Low Resolution Image



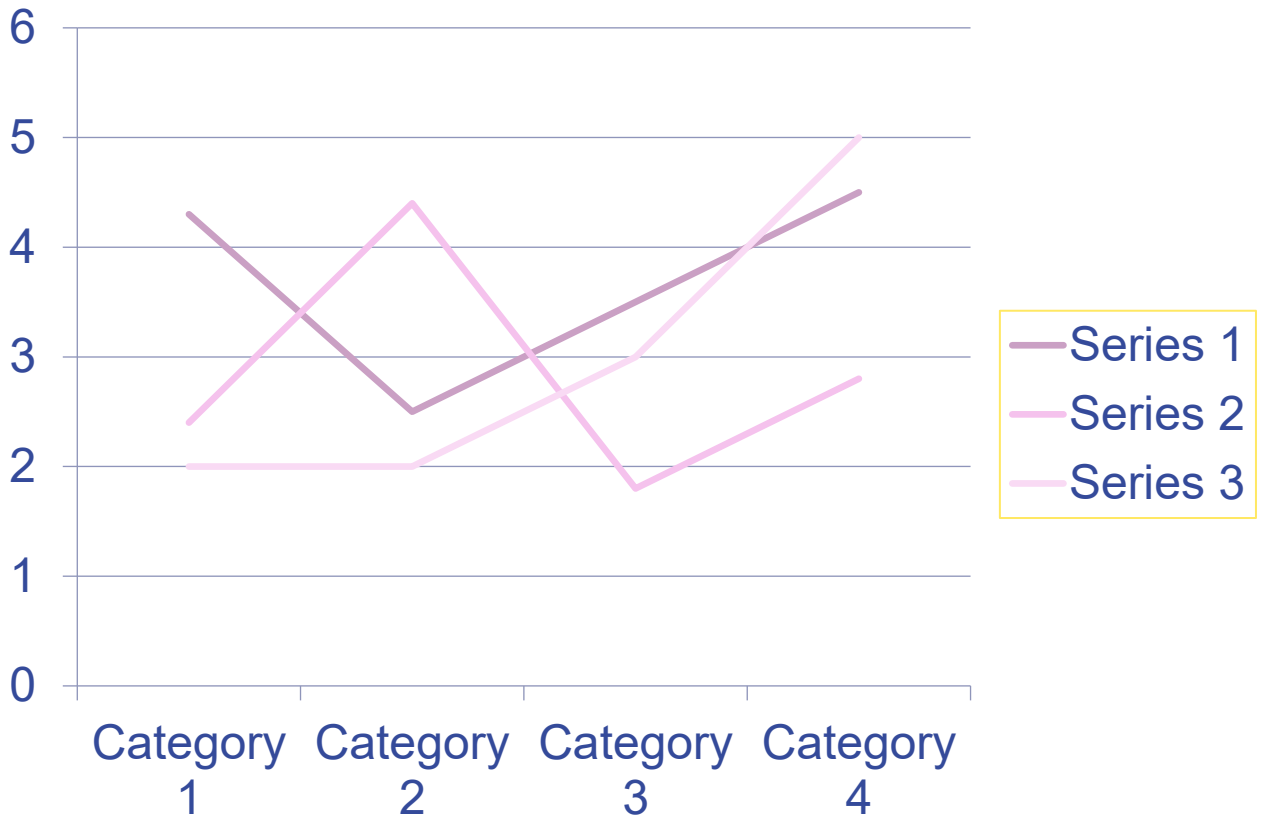
A High Resolution Image



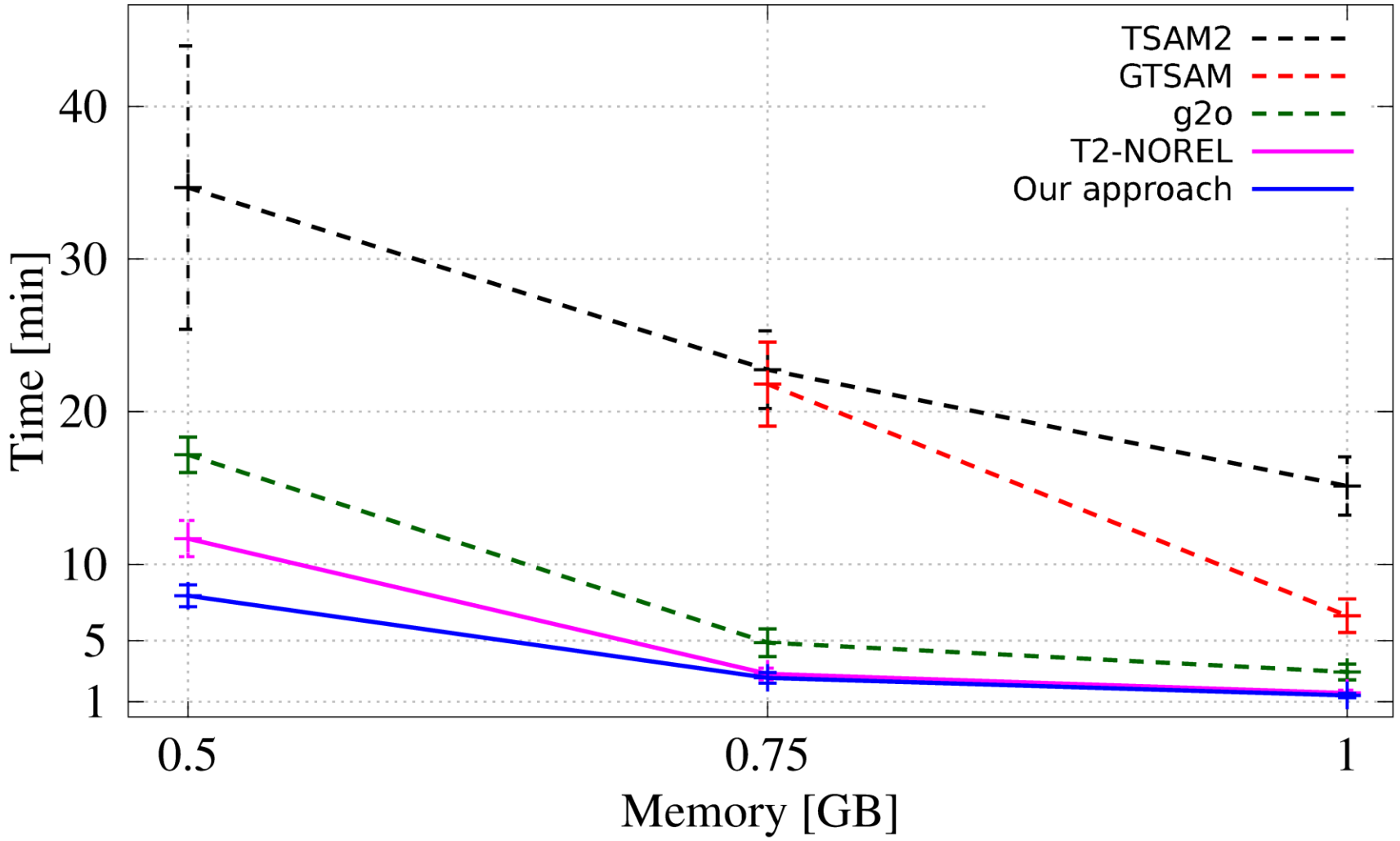
Plots

- Use colors that can easily be distinguished
- Use patterns that can easily be distinguished
- Order the legend according to the functions
- Make them high resolution
- Create your own one if needed

Negative Example Plot



Properly use Line Styles, Colors and Alignments



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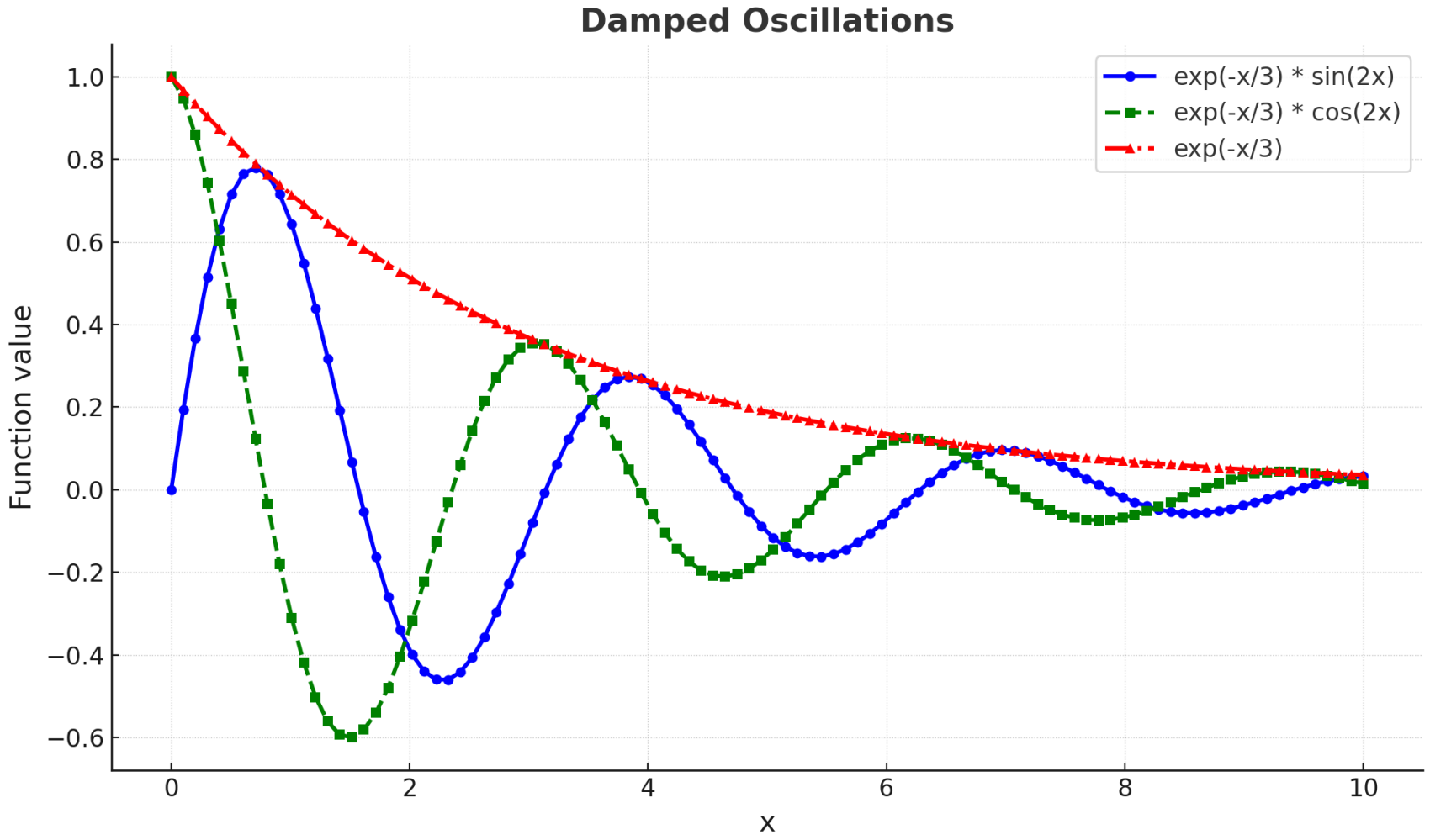

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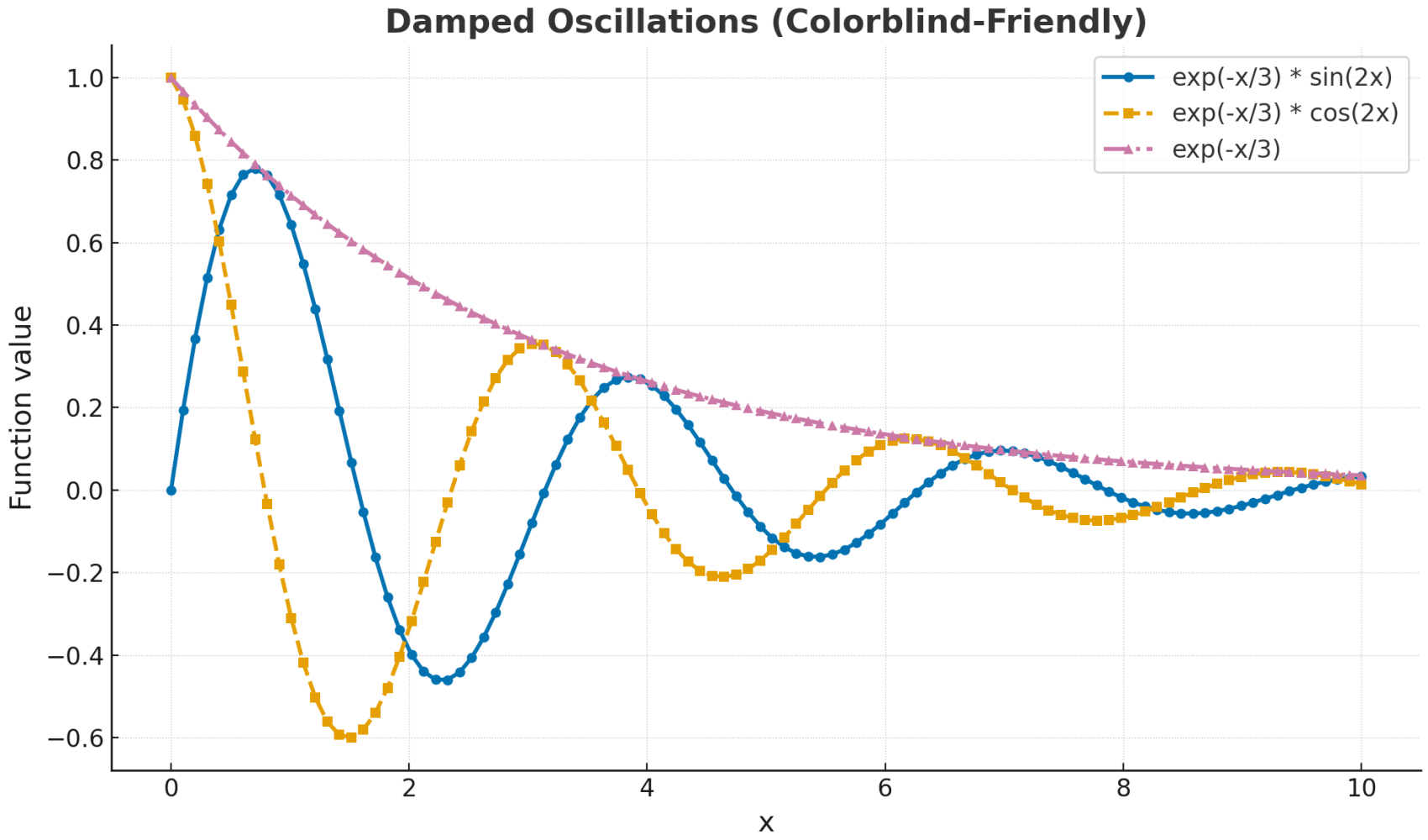

Animations

- Useful for **explaining content**
- Or **illustrating processes**

- And not to entertain the audience
- Avoid line after line text-animations
- Often animations are even distracting
- Avoid demonstrating that you know every feature of the presentation tool!

Spell Czeching

- Your computer can do spell checking for you: Use it!
- Always set the language of the slide to the language that you are using

- **Juice thee sbell chekker!**

Slide Numbers

- Help orienting
- Help referencing to specific slides, particularly for posing questions

- They might indicate hidden slides
- Some run in animations, some not, depending on the type of animation

- If it helps you, use them

Slide Numbers

- In seminars held at the university, it is better to use them
- In scientific presentations, everything not relevant to the content might be distracting.

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Bullets / Numbering

Only use indentations/numbering levels with multiple bullets

Example:

1. This looks fine
   - With multiple
   - Bullets
2. On every level

Bullets / Numbering

Only use indentations/numbering levels with multiple bullets

Example:

1. This is still fine with 2.
    - These levels
        - Do not
            - Look so nice
2. This is still fine with 1.

Important Aspects to Check

- Set the **language of the slides to the language of the presentation**
- **Spell check** your slides (press F7)
- **Check whether your videos run** on the computer used for the presentation
- And **when this computer is attached to the presentation display**

- Friendly video codecs are
  - MP4 with H.264 standard settings or
  - MS RLE encoding for animations

Choose a Proper Aspect Ratio

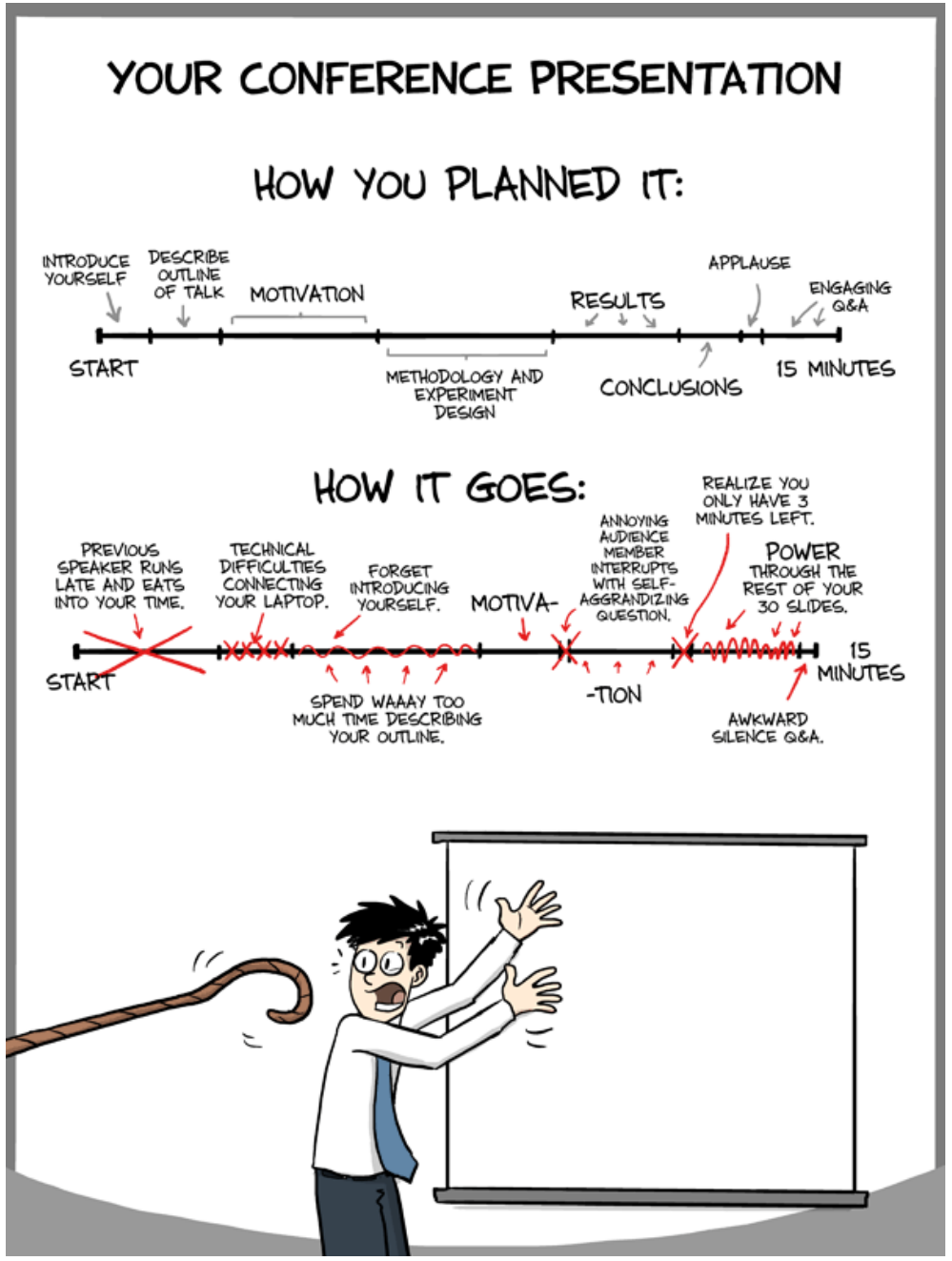
- Nowadays data projectors have **different projection formats**
- Typical resolutions are 4:3, **16:9**, 720p, 1080p, ...
- If you present on a **TV set**, the **fonts can easily be too small**
- **Check the aspect ratio before** you start **preparing your presentation**
- Changing it on the fly (before the talk) might lead to severe formatting problems

The Presentation

Your Presentation

- Plan it
- Practice it
- Time it
- Think about how to deal with interrupting questions
- Practice transitions between slides

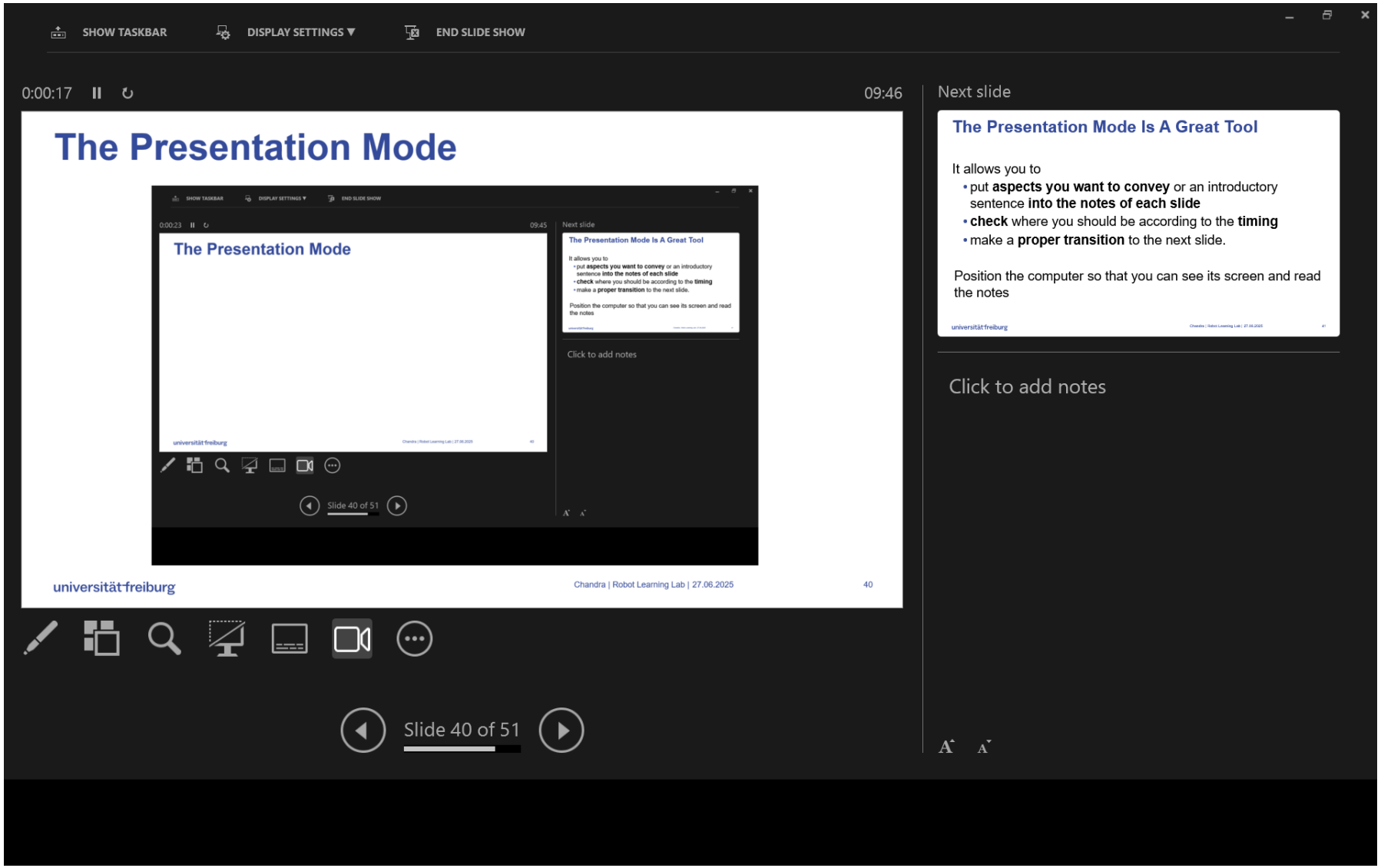
- Keep in mind: This is your show. Optimize it!


YOUR CONFERENCE PRESENTATION
HOW YOU PLANNED IT:
INTRODUCE YOURSELF
DESCRIBE OUTLINE OF TALK
MOTIVATION
METHODOLOGY AND EXPERIMENT DESIGN
RESULTS
CONCLUSIONS
APPLAUSE
ENGAGING Q&A
START
15 MINUTES
HOW IT GOES:
PREVIOUS SPEAKER RUNS LATE AND EATS INTO YOUR TIME.
TECHNICAL DIFFICULTIES CONNECTING YOUR LAPTOP.
FORGET INTRODUCING YOURSELF.
SPEND WAAAY TOO MUCH TIME DESCRIBING YOUR OUTLINE.
MOTIVA-
-TION
ANNOYING AUDIENCE MEMBER INTERRUPTS WITH SELF-AGGRANDIZING QUESTION.
REALIZE YOU ONLY HAVE 3 MINUTES LEFT.
POWER THROUGH THE REST OF YOUR 30 SLIDES.
AWKWARD SILENCE Q&A.
START
15 MINUTES

Connecting Your Laptop

- Check whether your laptop works (before the talk)
- Are the colours OK?
- Are the videos visible on both screens?
- Avoid booting your computer in front of the audience
- Check the entire presentation (esp. videos and fonts when you must present on a computer different from yours)

The Presentation Mode



The Presentation Mode Is A Great Tool

It allows you to

- put **aspects you want to convey** or an introductory sentence **into the notes of each slide**
- **check** where you should be according to the **timing**
- make a **proper transition** to the next slide.

Position the computer so that you can see its screen and read the notes

Laser Pointer

- Might help you to **point at content**
- or to **emphasize aspects**
- **Hold the laser pointer in both hands** if the laser point **jitters**
- Not everything needs to be pointed at
- **Do not point at the audience**
- Start and stop the laser properly
- **Familiarize yourself with the buttons**
- and the other features (timer)

Laser Pointer Gestures

- Underline
- Circle
- Point at

Speaking (1)

- **Speak up** to make sure that everyone can hear you
- If there is a **microphone, speak into** it!
- **Do not lower your voice** simply because there is a microphone
- If you can **hear your voice from the speakers**, the audience does as well
- If you cannot hear it, the audience will probably also not be able to hear it (and you)

Speaking (2)

- Avoid dialect and idioms
- Avoid quotations that are not publicly known
- Avoid repetitions (look for alternatives or synonyms if you discover it)
- Avoid hesitation vowels like “ahem”, “uh”, “well”, “yes”, “OK”, …

Make Sure People Can See You

Make Sure People Can See You

How to Move and Behave?

- Establish contact to the audience
- Do not solely focus the computer screen or the screen
- Do not look at the ground or into a corner
- Avoid siding (try to look at everyone)
- Do not hide yourself behind the lectern
- Do not stare at the screen
- Do not simply read off the slides
- Do not put your hands into your pockets

How to Dress?

- People are there to hear your material
- When you dress up you send the message that you care enough about the audience
- My experience is that it is better to feel overdressed rather than underdressed
- Do not wear something really wacky
- Ask your advisor!

Questions / Interruptions?

- Think positive!
- Questions are good and show that people are interested
- Try to repeat the question to make clear that you understood it properly
- If you cannot answer a question, be honest about it and do not say random words
- If answering would take too long or would go too far away from the talk, suggest to take the discussion offline
- Do not worry when someone falls asleep

Summary

- A talk is a unique opportunity to present yourself and your work
- Prepare it carefully
- Practice it extensively
- Avoid being late with your presentation
- Avoid not to be unprepared

Thank you for your attention!

This slide appears in almost every talk
but actually, is superfluous.

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Thank you for your attention!

robot learning

Paper & Code

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