Tips for presentations - FYSN17/FMFN01 VT2016

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1 Point of the project

The main point is to present some nice physical picture of the subject you're studying. The idea is not to present all kinds of complicated calculations, as this would bore everybody. You can present whatever you want, concentrating on the things that you understand and that you find interesting. A key point is, that whatever you present, you should do it in a way everybody else can understand. Give background information if needed. Try to relate what's in the articles to things we've seen in the lectures.

2 The message

Any presentation intents to convey a message to the audience. It's important you know what your main message is; what's the most important conclusion of your work? What are the key elements? Depending on the context, the type of message will be different. In this project the main goals are to introduce the other students to the subject you studied.

Here it is crucial, to have a realistic idea about the message, which can be transferred. Typically, the audience will understand little, and only very few points will be memorized. It is thus of crucial importance to be aware of the specific message one wants to convey and focus the effort on bringing this message into the mind of the audience.

3 The structure

A well-known saying reads

- 1. Tell your audience what you're going to tell them.
- 2. Tell them.
- 3. Tell them what you told them.

This reflects the main idea, to focus on the message to be conveyed. However there is one important point missing: First you have to catch the interest of the audience. Thus 0. Start with examples or questions, the audience finds interesting, and which connects their general interest to the particular topic of you presentation. In particular start slowly, so that everybody can follow you, even if they are still looking for their pencil or switching off the mobile phone. It also takes some time to get used to the voice of a speaker.

4 General rules for comprehensibility

In preparing slides, remember, that they have three purposes:

1. The slides are a support to what you are saying. There's many things you can put on slides; text, figure, movies, etc. But don't forget that the slides are not a place for additional information which is skipped in the speech, with references as an only exception.

- 2. They should contain the logical structure of the presentation.
- 3. They display key statements from the talk. The direct connection between spoken and written text highlights the points addressed in the speech. This provides a second chance for the audience to access the statement in case they did not receive its content from the speech.

Other general advice:

- Avoid abbreviations, which the audience is not common with.
- Text should be short. Restrict to individual phrases with less than about seven words. Nobody can read entire paragraphs, while listening at the same time.
- Lists should not contain more than 5 items, unless there is a clear sequence as in a recipe. If needed, subheadings may help.
- If you have figures, clearly explain what they are about, the meaning of the axes, what information one gets from the figure, conclusions, etc.
- More in general, explain items that contain information in detail; assumptions, formulas, figures, etc. Things might seem obvious to you, they certainly are not for most people that are not familiar with the material you're presenting.

5 Originality

It is assumed that the presenter has created the slides together with the coauthors. Material, in particular figures (and sometimes other content such as specific equations), which is taken from other persons should be marked accordingly. These references are typically not full bibliographic, but must contain sufficient information for the audience to identify the creator of the work. Examples are A. Miller(Uni Oxford), J. Faist Science94, or D. Jackson Electrodynamics.

6 Technical recommendations

- Use good contrast for letters. Bad examples, which are difficult to see are green on blue background or light red and yellow on white background. Bold-face text is generally easier to see.
- The letter size should be sufficiently large. There is always somebody sitting in the back of the room.
- Sans-serif fonts (e.g. Arial) are quicker to read than serif fonts (e.g. Times).
- All axis labels of figures must be readable. This frequently implies, that you must redo figures with fewer ticks, or even omit the numbers, if you do not refer to them (but axis lables are required!).