



HOW TO PREPARE & GIVE A TALK

A FEW PERSONAL ADVICE



Goals of your Talk

- What is your *core* message?
 - Technical / Scientific detail
 - Overview over wider subject
 - Publicity for your team / company / yourself
 - ...

- How do you want to appear?
 - Expert in the special subject, intelligent & clever
 - Demonstrate your overview & expertise in the field
 - Be cool & funny ('dinner talk')
 - ...

- In which 'style' you want to talk?
 - Clear and educational ('hope you understand...')
 - High level ('I am such a clever guy...')
 - ...



The Audience

- Who is the Audience ?
- What does the audience know ?
- What are the expectations ?
- In what state will the audience be ?
 - tired from many talks.. On a conference
 - Eager to hear from you on a summer school
- This is *very important* to select you foci:
 - Which information do you have to introduce ?
 - What would be boring ?
 - Which results are most relevant for *that* audience ?
 - users want to see results and hear about applications, cost..
 - experts want to hear about details



Some Boundary Conditions

- What are the other talks in the session ?
 - If you are 5th speaker in a session on ATLAS results, you can be quite sure that the experiment has been presented. So do not plan for that (but have some slides in case...)

- Are there similar talks you should refer to ?
 - Make differences to other talks clear
 - This shows that you overlook the field and that you listen to the colleagues

- Do you want to advertise other talks / posters ?



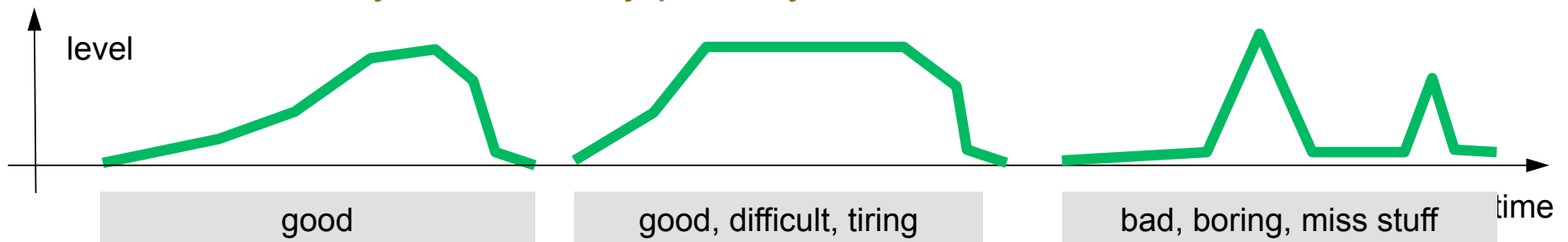
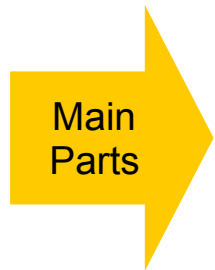
The Title

- Does it describe your message ?
- Is it understandable (*for the audience*) ?
 - ‘A 7-3 compressor for a fast 16 x 16 ALU’
 - ‘Inverse Kinematics in Blender’
 - ‘Characterization of the XYZ ASIC’
 - ‘Development of Analog Readout, Digital Signal Processing, and Data Analysis Software for Ultra-High Rate HPGe’
- Is it too general ?
 - ‘progress in high speed computing’
- Does it sound interesting ?
 - ‘Getting Close to the Limit : sub Nanosecond Timing with LYSO’
- Is it too long ?
 - ‘Design and Evaluation of a New PEM Scanner Based on Pixelated Solid State CdTe Detectors to Overcome the Intrinsic Limitations of State-of-the-Art Devices Based on Scintillators’



Structure of the Talk

- **General Introduction / Motivation**
 - Not too long. This is mostly stuff people know anyway!
- **Overview**
 - Short! Do not spend a minute to go through all bullets!!
 - In a short (12'-20') talk, I often skip that
- **Introduction to your *specific* subject**
- **Your idea / methods / design**
- **Results / Highlights**
- **Further information / Outlook / Ideas**
- **Summary**
 - Only mention key points you want the audience to remember





Contents of the Talk

- What is the idea ?
- What is new ?
- What is state of the art (the competition) ?
- *Why* is it important what you do ?

- What are the challenges ?
- What are the solutions ?



Level

- The ‘average’ audience must be able to follow your talk
 - Can you say ‘MSPS’ or ‘SPECInts’ or do you have to explain?
- I think: few slides (topics) should be difficult to understand
 - This is then interesting also for the experts
 - The ‘normal user’ should understand that it is no problem to miss that point
 - This shows that you give a high level talk



Layout

- Title not too large
- Put page number, speaker name, date, location, event on each slide (small, for later reference)
- Do not use too many colours. Use them to provide information!

- Difficult issue: How much text ?
 - In general I would say: not too much (just 'reminders'). You are standing there to explain the things
 - Do not just read what is on the slides!
- But:
 - If you are unexperienced & nervous, put all items (not words) you want to treat on the slide to guide you (or use the notes).

- NOTE: (my) Lecture slides are NOT a good example: They can be used as Writeup and contain much too much text



The Slides

- The optical quality of the slides shows the audience that you invested time & effort
- So: invest time & effort!

- Use a homogeneous layout throughout
- Do not use too small font (the slide should be readable on a 800 x 600 resolution screen...)

- Be careful with animation. They need good timing of the speaker
 - Never give the expression that you press the key to see what is next. You should know your talk by heart!
 - It's much cooler if you talk about something and the animation comes *later*



The Slides – Pictures and Graphics

- Pictures make talk clear and entertaining
- Use good quality pictures. Make an effort to find them!
 - But do not copy 8Mpixel bitmaps in the .ppt file. This makes it huge and slow.
 - Do not use .jpg for geometric figures! The compression produces artefacts.
- Make sure the audience can read the text in pictures
 - Enlarge the text if it is too small (add text on top)
 - Delete unnecessary text
- Provide references to the pictures (below the picture, in a footnote, in an appendix) – as for all other information
 - Trivial information is exempt
 - This is most important in a ‘publication’ talk, not so much in a summary or entertainment talk.



The Slides – Pictures and Graphics

- If the quality of simple ‘block diagrams’ is poor: draw them again yourself!
 - This is not taking so long
 - It makes your talk much more homogeneous!
 - The audience sees you made an effort (so it is good if the picture is identified as hand-made)

- Remove unnecessary information from the pictures
 - Things you do not talk about should not confuse the audience

- NEVER say ‘this is difficult to see on this picture...’ – Use a better picture!



The Slides – Page Numbers & Co

- Page numbers are important!
 - With numbers, audience can refer to slides in questions
- Add speaker name
 - It's your 'copyright'
- Add the event of the presentation
 - Useful if slide 'shows up' later somewhere else. Good to know if content is 'old' or 'recent'



How Many Slides ?

- Depends on many things
 - How full is one slide ?
 - How fast can you talk / how much can the public digest ?
 - ...

- Do not squeeze stuff on one slide 'to save time'
 - Two slides with the same sum content require the same time
 - They give better structure & are more readable
 - This was different when 'transparencies' were expensive...

- Use intermediate titles to structure your talk

- Rough orientation: 1-1.5 slides / minute

- I have seen fantastic talks with 5 slides only!



Before your Talk

- Check Beamer & Laptop (if you use *your* laptop)
- In a conference:
 - Make sure your talk is uploaded to the presentation PC
 - This must be done BEFORE the session start!
(sometimes even the day before)
 - Check that the file is ok. Videos are a big risk (missing codec!)
- Make sure you have a (mechanical or laser) pointer
- Maybe clean the blackboard & provide chalk / pen
- If there is a microphone, fasten it well
 - Not too close to your mouth, not too far away
 - Observe how it worked with the previous speakers
 - If you feel uncertain, ask the audience if they can hear you
 - If the clip is bad, better hold the microphone in your hand
(Your talk makes NO sense if people cannot hear you!)



A Talk in a Conference

- In conferences with many speakers & parallel sessions, timing is kept *very* strict
- The 'chairperson' will show you countdown cards:
 - 5 / 3 / 1 minutes to go
 - 0 minutes to go = Stop!
- Show the chairperson that you see this and that everything is ok...
- When you are not done @ 0, you *may* have 1-2 extra minutes. The chairperson will stand up and look angry. The audience will not be amused.
 - Say 'Just one more slide before coming to my conclusions' to announce that the end is near... Come to the end!
- Important: Try to put some slides in the second part of the talk which you could *skip* if you run out of time. Really skip them (with 'G' + slide number) if required!



The Talk

- Be concentrated, motivated, enthusiastic,...
 - Stand upright
 - Do not be boring!

- Speak clearly (but do not shout). Do not speak too fast or too slow. Try not to be monotonic! Make breaks. Emphasize important things!

- Look at the audience! Look into some faces! Talk to individuals, not to the crowd or the room...

- Use the pointer. Use it well!
 - Really point on the relevant information (but not on text)
 - Do not wave around...
 - If you are nervous & shake, take the pointer in two hands or support it on your hip!



The Beginning & the End

- The start of your talk is very important!
- Think about a sentence for introduction ('Hello')
 - 'I hope you enjoyed the lunch and are fresh again after this exciting morning session for more results on ...'
 - 'I guess you are all tired after ... so I will do my best...'
 - 'Let me first say that it is a pleasure to be able to present...'
 - 'Good afternoon! My name is ... As a PhD student, I have worked on ... in the last 3 years and I would like to share a few interesting results with you'
- **Learn this by heart! Do not mess it up!**
- Prepare a nice end
 - Thank the audience for their attention
 - Ask for questions
 - 'I thank you for your attention despite the late time and would be happy to answer your questions'



Hints

- Stay in time. Better too short than too long
 - Nobody will complain that you have only used 11 minutes out of 12. But pass the message.
- Look at the talk schedule. If you are the 4th speaker on xxx, there is no need to bore the audience with repetitions. Skip these slides! (do not delete them – show the audience that you want to save their time!)
- If you are hectic (like I am), add soft slide transitions
- If the chairperson says ‘the title of the next talk is ...’ then do not say ‘the title of my talk is ...’!
- Why not start with the result ?



Training

- **Train your talk!**
 - I do that several (3-4) times before an important talk!

- **Be serious when training!**
 - Start a stop watch
 - Speak loud or at least formulate out every sentence
 - Do NOT just look at the slides and think about what you want to say...

- **When training the talk seriously, I often discover**
 - that the logical flow is broken and that I need another slide
 - that there are too many slides on one subject
 - that the structure is bad
 - ...



Example

- Here are the slides of a talk I gave this fall at the IEEE NSS conference in Seattle.
- This was a 12' talk
- I had 20 slides (+ titles..)
- Preparation took ~1.5h per slide on average