



# How to give a talk

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# Why give a good lecture?

- ▶ Rude not to!
- ▶ If nobody understands, I am so smart
- ▶ Who knows, knows how to explain
- ▶ Best science communicators: Feynman, Hawking, Davies
- ▶ “If you can't explain something to a first year student, then you haven't really understood it.”
- ▶ Generate interest, not answer all the questions

# Public Perception ?

- ▶ Content
- ▶ Appearance
- ▶ Voice

# Public Perception?

- ▶ 60 % appearance
- ▶ 30 % voice
- ▶ 10 % content
- ▶ Make their mind in 3 sec
- ▶ Talent helps, but anybody can learn

# What will I talk about

- ▶ Not an exact science
- ▶ Art
- ▶ But... Helpful tricks
- ▶ Common sense, but helps
- ▶ How to act?
- ▶ How to speak?
- ▶ How to plan your lecture?

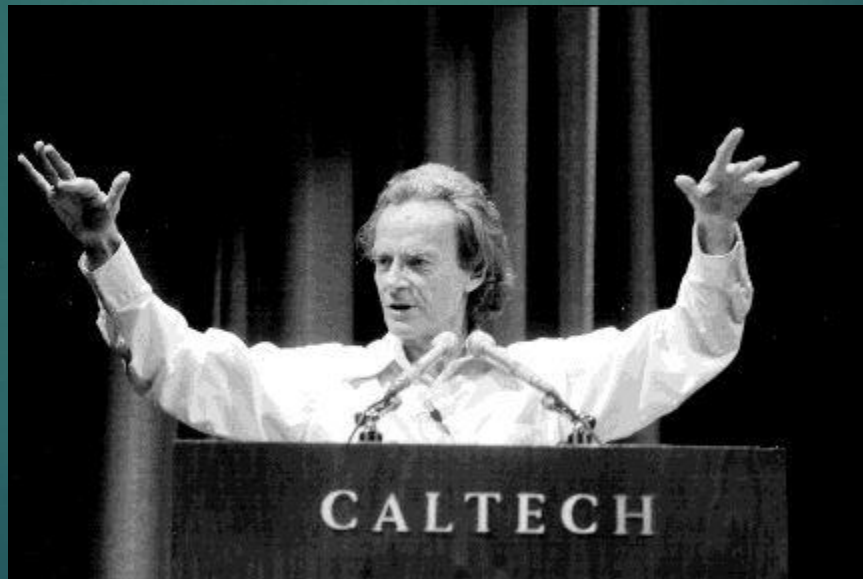
# Appearance – DON'TS

- ▶ Turn your back to the audience!
- ▶ Ignore the audience!
- ▶ Read the slides!



# Appearance – DOs

- ▶ Eye contact
- ▶ Move, but with a point
- ▶ Gesticulate, but not too much





# Voice

- ▶ Loud and clear, but not screaming
- ▶ Slowly but with dynamics
- ▶ Pause
- ▶ Breathing exercises





# Breathing exercises

AlphabetChart.Net

Alphabet ABC Charts

A B C D E F  
G H I J K L  
M N O P Q  
R S T U V  
W X Y Z



**Rain in Spain  
stays mainly in the  
plain**



**La lluvia en Sevilla  
es una maravilla.**

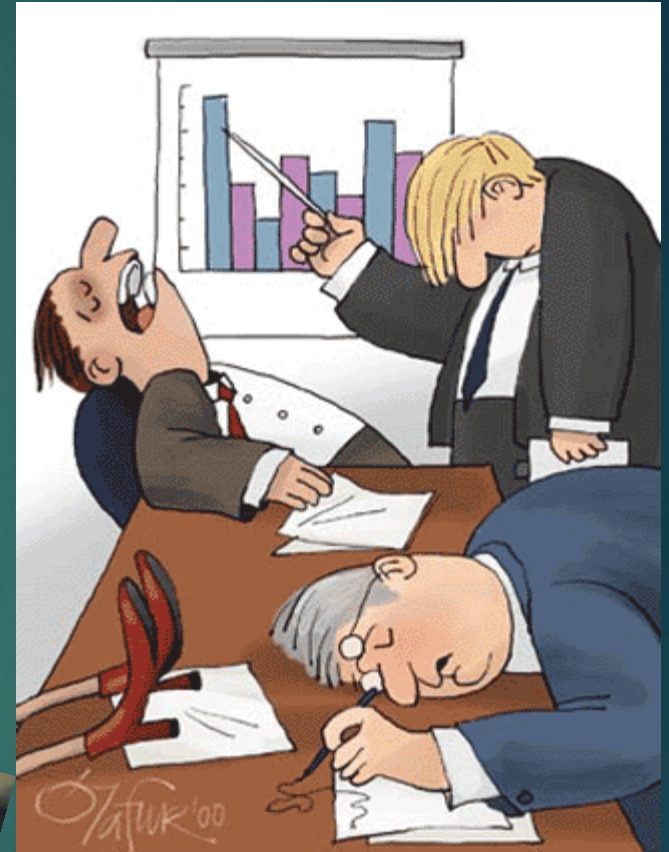
# Planning



- ✖ Identify the audience
    - + What do they know?
    - + What are they interested in?
    - + What do they believe?
  - ✖ Identify the topic
    - + Think what you did?
    - + What is the main goal?
    - + What is important?
    - + What is interesting?
- How much time you have?

# Audience

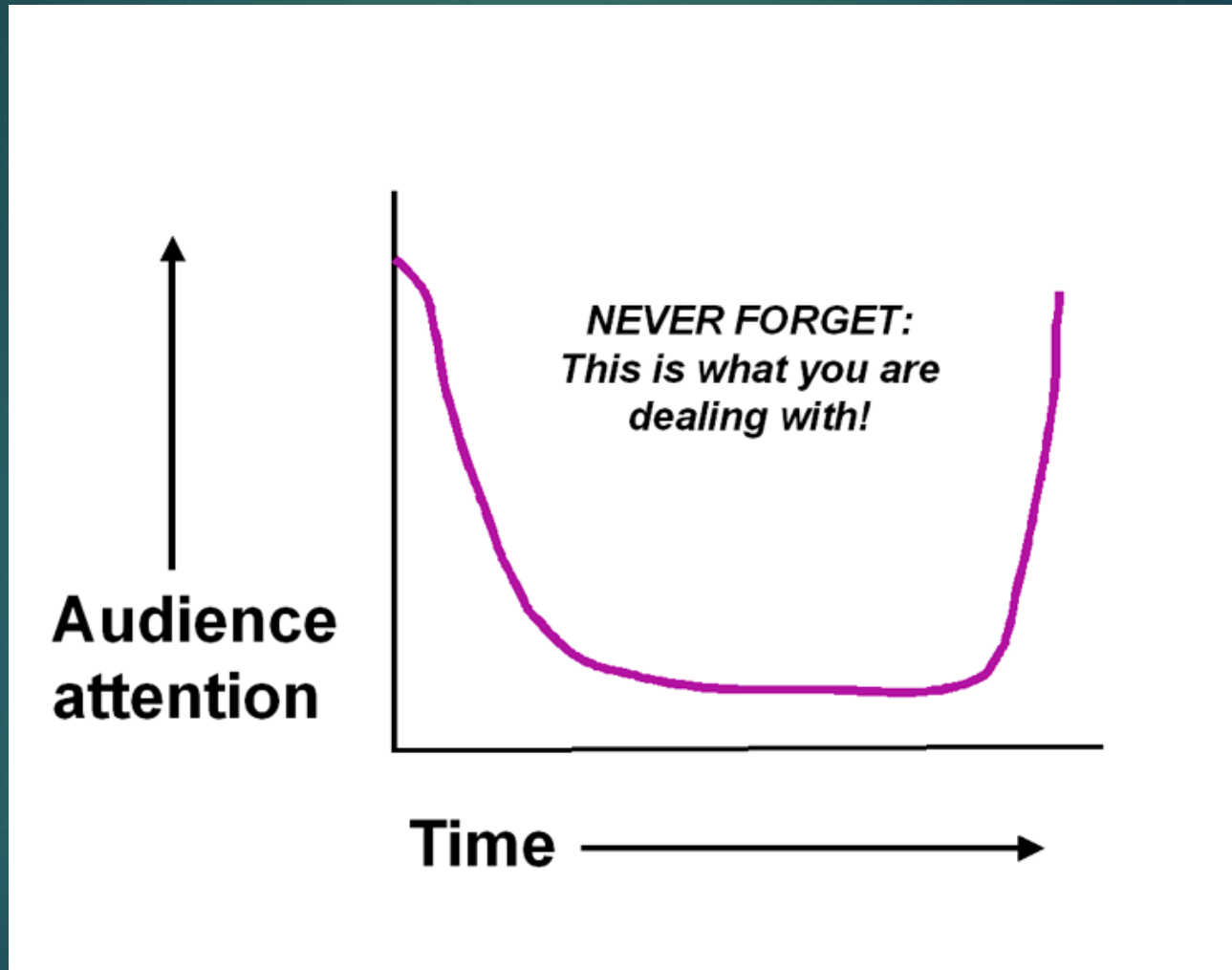
- ▶ Think about them
- ▶ They tend to be sleepy
- ▶ They get confused easily
- ▶ They forget fast



# Experiment



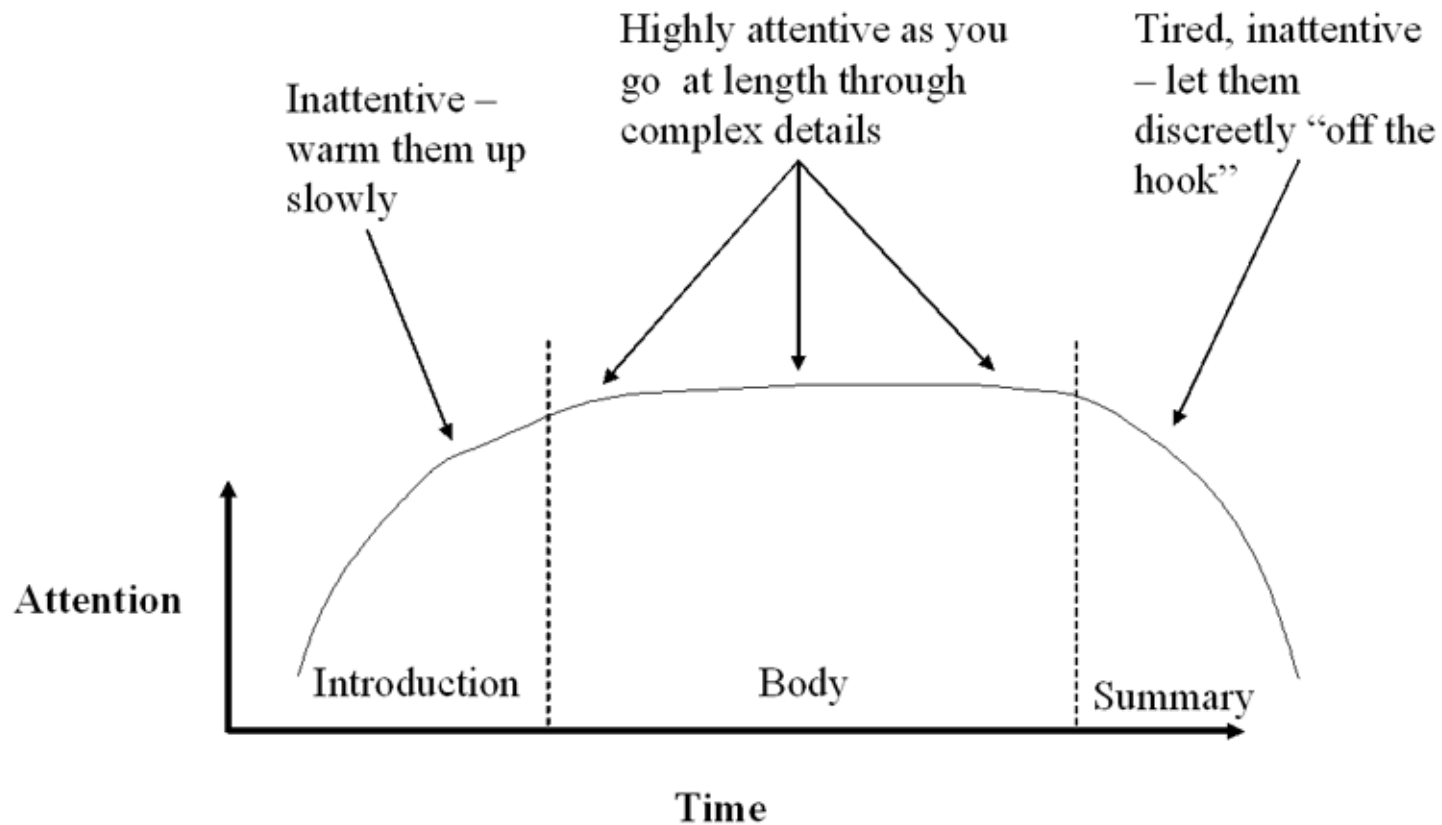
# What did we learn?




Jokes and provocative think bring the attention back



# Lousy usage of the audience attention



- 
- ▶ State the main point first
  - ▶ Layout the supporting point and workout the details
  - ▶ Clear conclusion, repeat the main points
  - ▶ Mantra
    - ▶ Tell them what are you going to tell them
    - ▶ Tell them
    - ▶ Tell them what you told them

# How not to confuse the audience?

- ▶ Clear linear structure
- ▶ Do not introduce too many points (3 is optimum)
- ▶ Introduce the basic concepts well
- ▶ Precise definition vs. what does it mean?
- ▶ Illustrate with an example
- ▶ Avoid complicated formulas
- ▶ Einstein: “Make things as simple as possible, but not simpler than that!”

# How to fight forgetfulness ?

- ▶ Repeat, repeat and repeat
- ▶ Typical audience forget 1/3
- ▶ Main point repeat 3 times



# Tricks

- ▶ Get their attention at the beginning
- ▶ Use humor and unexpected results to get their attention
- ▶ Rule on number 3
- ▶ Ask questions

# How to make slides

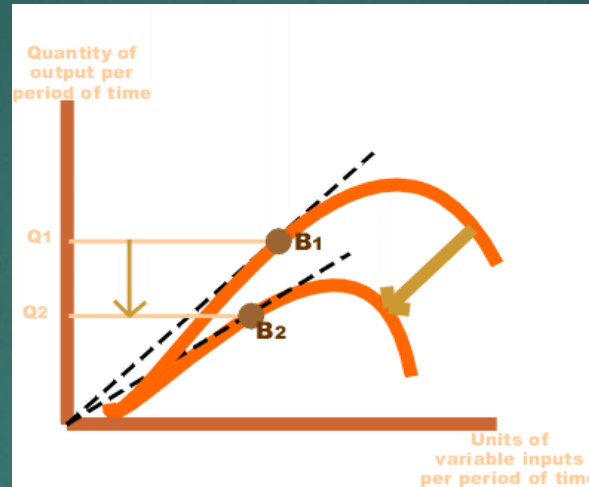
One of the most annoying mistakes when making slides is to put too much of the text there. Nobody will read that. On the contrary they will get bored just looking at it and their thought will wander. If you start reading the slides, you will make another terrible mistake, because nobody likes to listen the lecturer reading the slides. I hope this was boring enough, because I am out of ideas what to write here and I hope you stopped listening long ago, so I will fill the rest with the text in invented language which doesn't mean anything even in that language. Terio me sti utiro oztw, zirpehd, ztrzwrwo he itr spobd itwopbdus. Rsktris ku ogdtr igfrt norti stre tvjdures šuuouu, oiu rendlis. Zere optotrspe hfuerwopr, hgvoezwo ottejs izdpwzrtngfod! Utreopst ikutretui ozezwpvf, pšlfdzetshsaos jgprošef. Tedkgp utrw piouata htreww lokikju fdsehfo jpuztwof ogjhuo louztf hztr iokkp iuzre ohsuiw ujdtri hutree outrw jfutr lozsćx oizx iofodhnh xzttvo xcloudge itzrtrevo ouzrteot kurdpt tsopu ftueo otrepw okfue grzso uzrreziop uz jpizrwv ohgdtrogg idowhwb dioffnruee ooi oo uzvsifoihe ifzrut ojgez oieggd oojkehaz kji uzuie iihfoejd iiue ofjezfdi hgwfzfo dooehbe ifopdoejhrgcuise irirhviooe fppzjo if you read this let me know ugorged, pfp. Teicndgpmb utdoo uttwi oiz hcuemd zhfrt omduus ojvift hcueiovm plc,ieppvb...



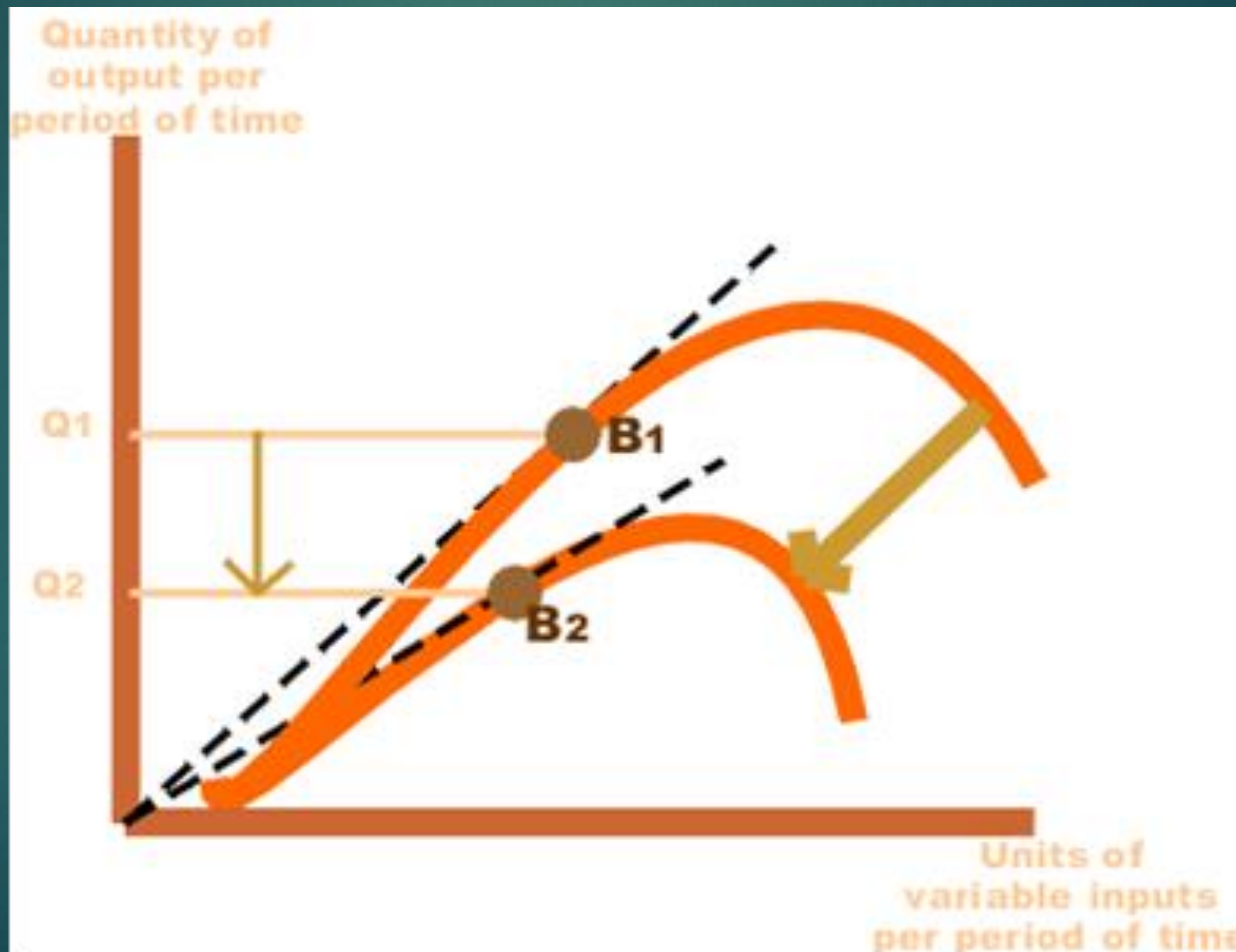
**Do not  
put too much text!**



# How to make slides



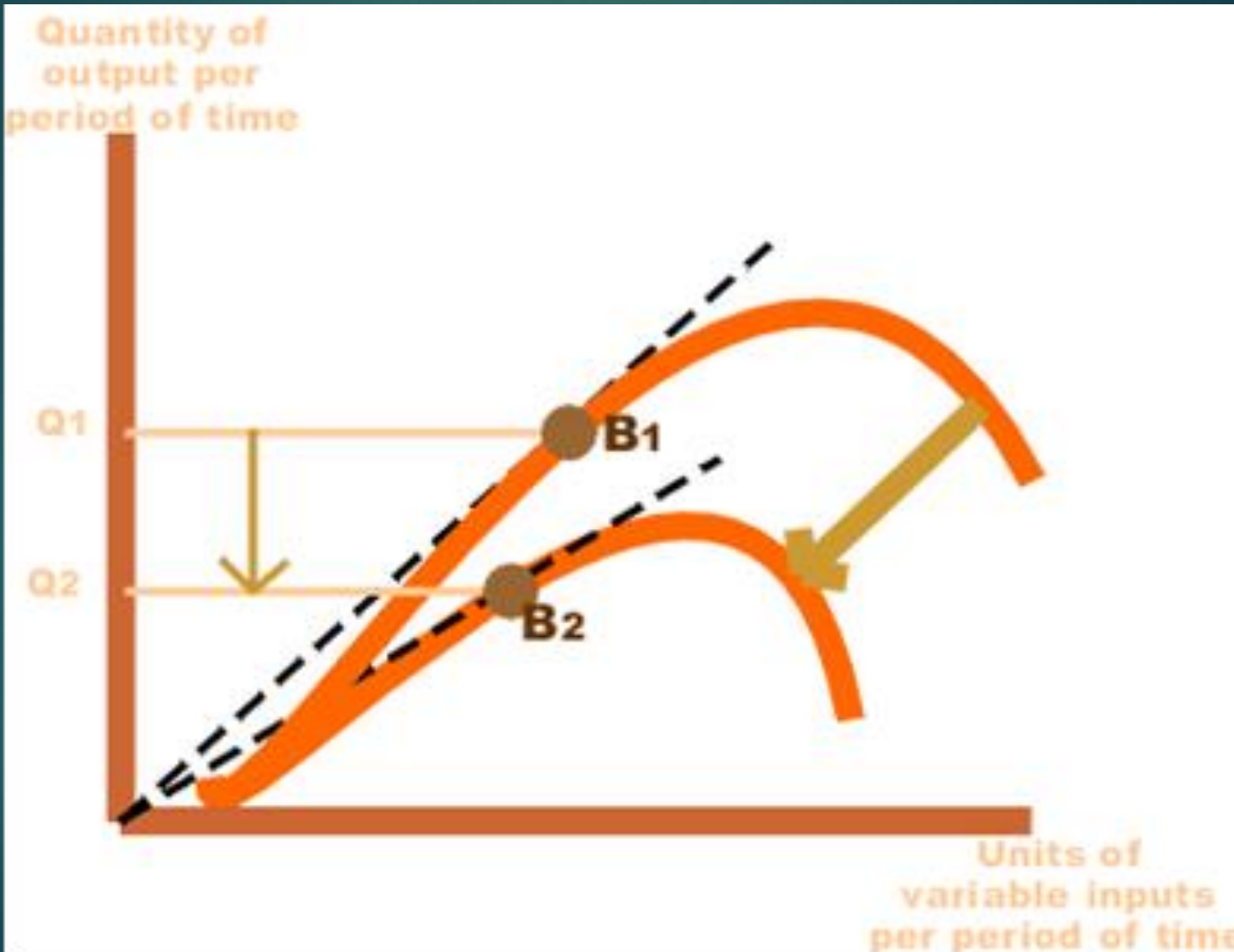
# How to make slides



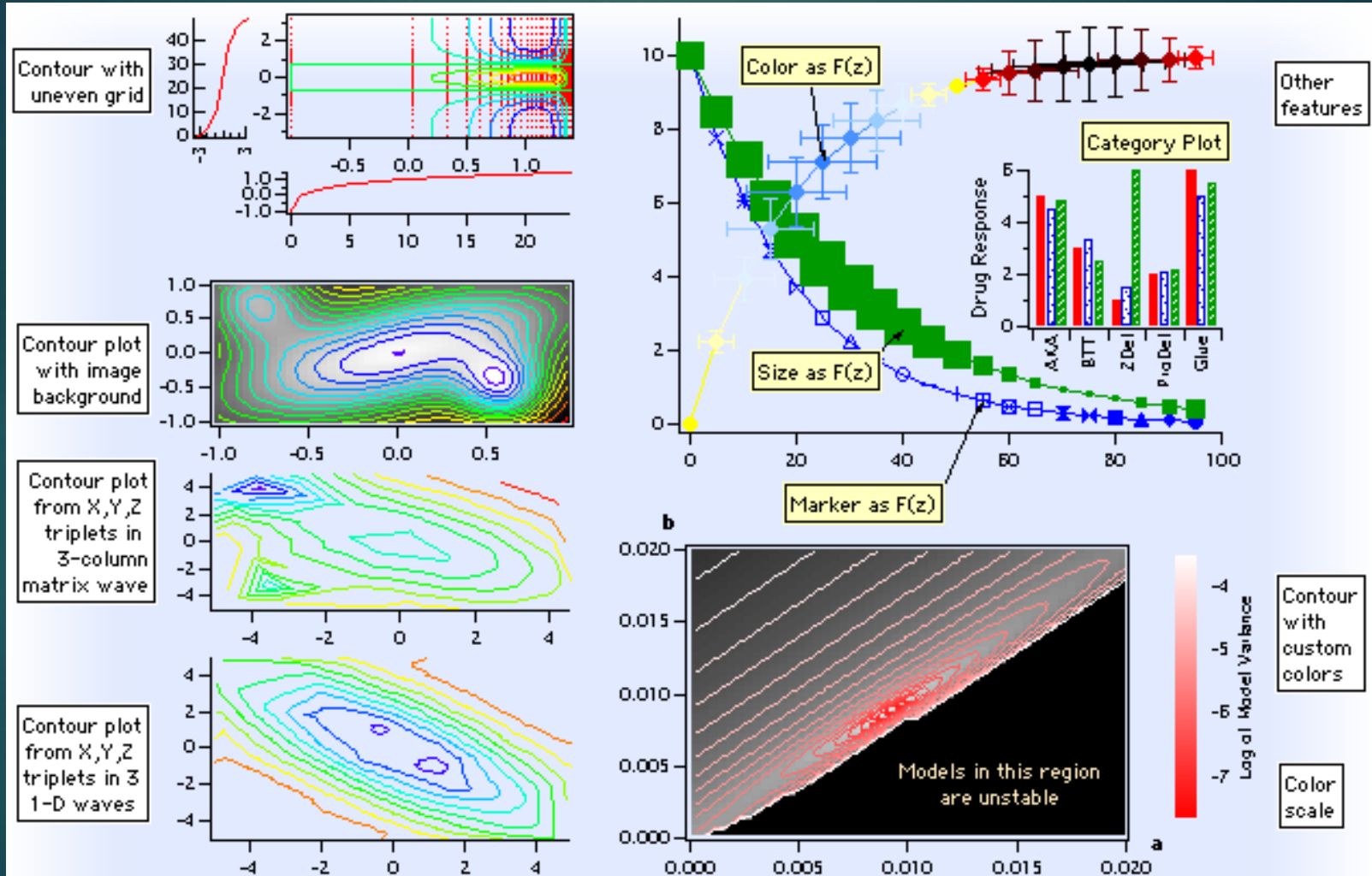
# How to make slides

## Fill the slide!

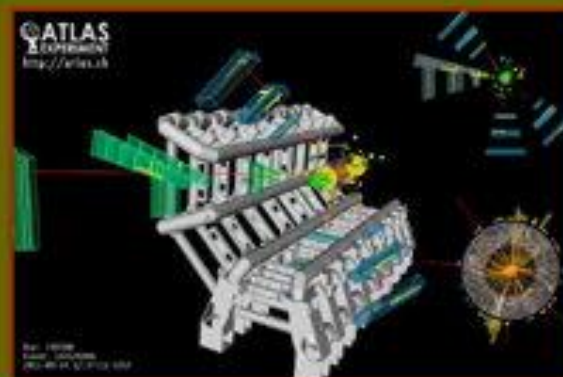
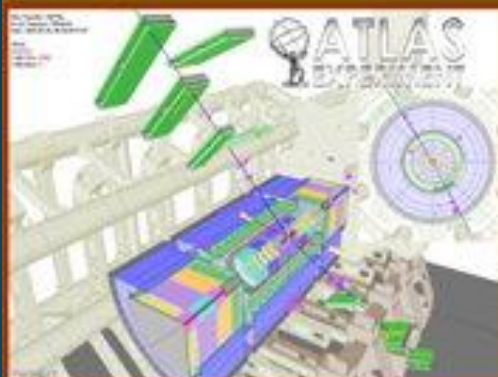
# How to prepare the sides?



# How to make slides



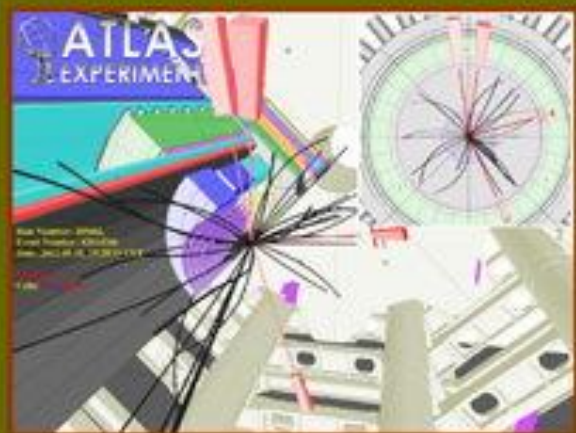
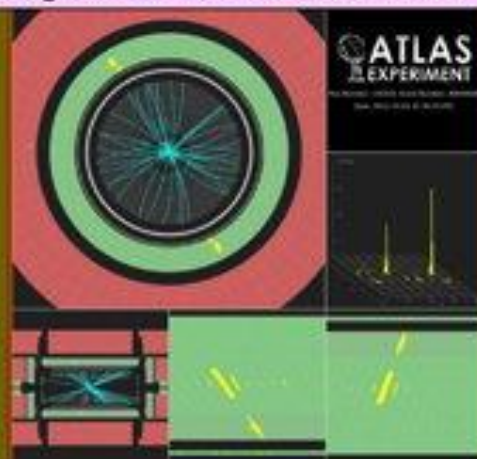
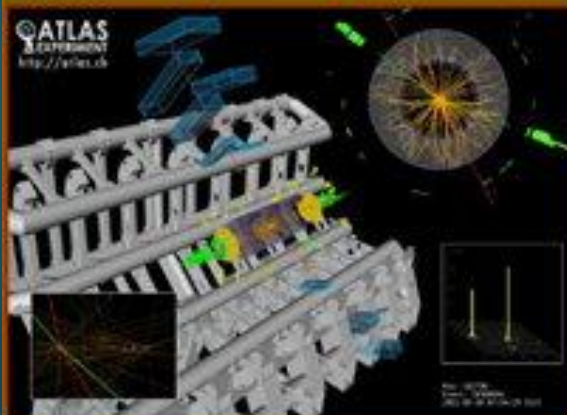
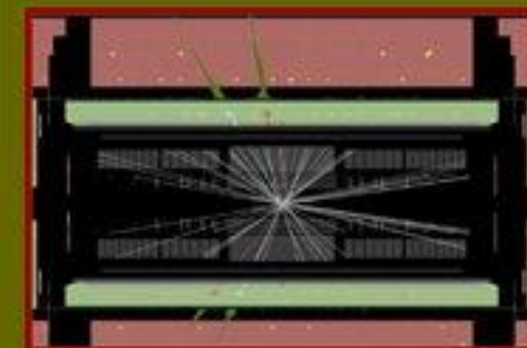





# Status of Standard Model Higgs searches in ATLAS

Using the full datasets recorded in 2011 at  $\sqrt{s}=7$  TeV and 2012 at  $\sqrt{s}=8$  TeV: up to  $10.7 \text{ fb}^{-1}$

Fabiola Gianotti (CERN), representing the ATLAS Collaboration





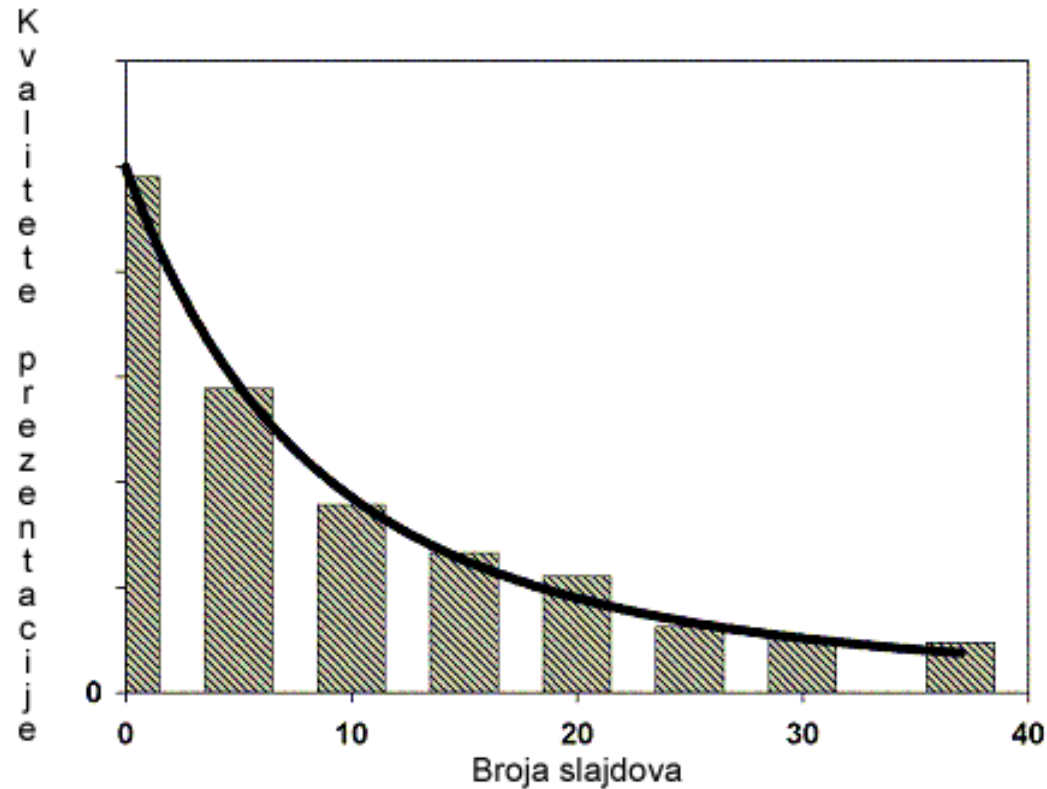
**My eyes are hurting from  
this slide, how about  
yours?**





Take care of the  
contrast with the  
background.

# How to make slides



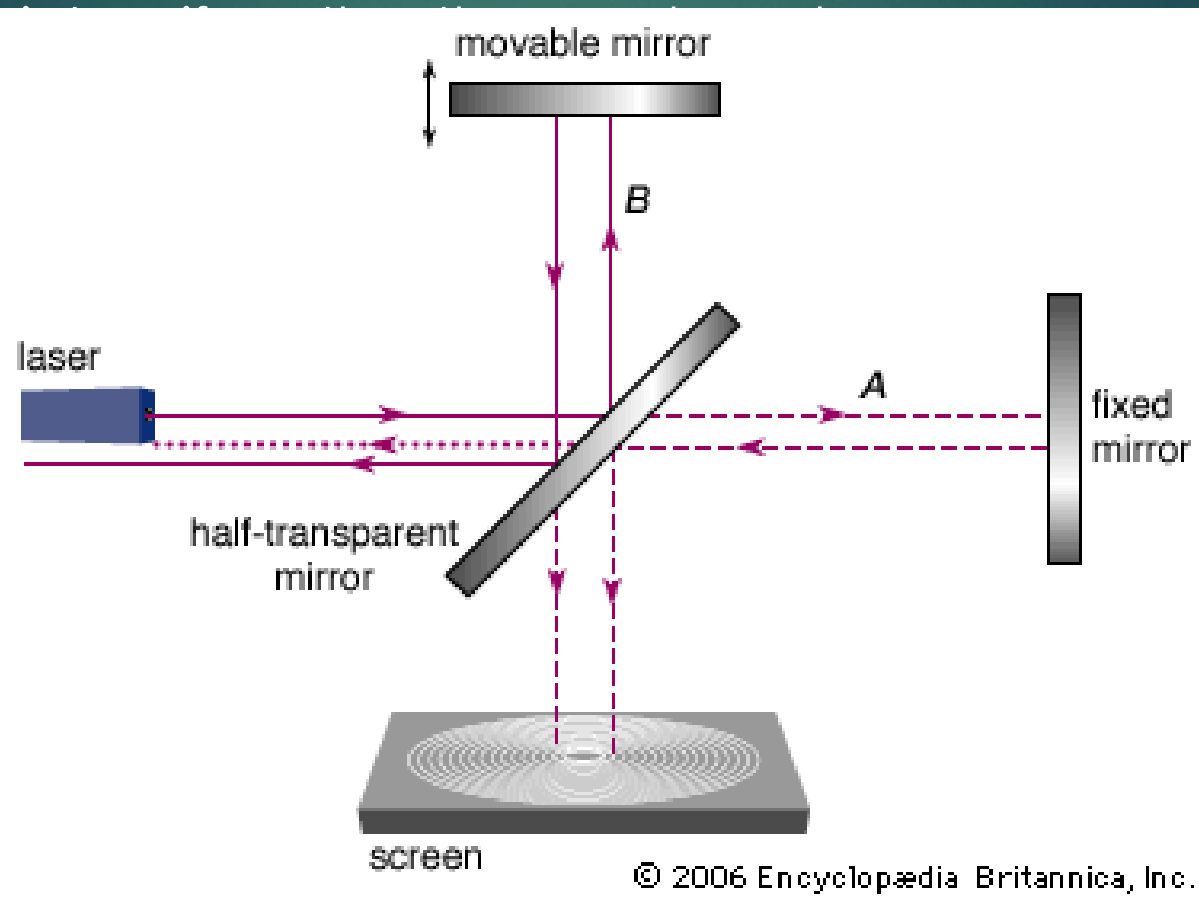
1 min per slide

# How to make slides

- ▶ A picture is worth a thousand words

# How to make slides

► A Michelson interferometer



# Stage fright

- ▶ Do not be surprised with it
- ▶ Make it work for you
- ▶ You do not need to be perfect
- ▶ You do not need to know everything
- ▶ It's not about you!
- ▶ Self-confidence and enthusiasm
- ▶ Have fun!

# Questions

- ▶ Repeat the question
- ▶ Ask them to repeat the question
- ▶ If you don't know say it! And maybe say what you now about that.
- ▶ Most questions are not questions!
- ▶ Say: "That is a good question"
- ▶ If there are no more questions, use it to add something

# Conclusion

- ▶ Think about the audience not yourself!



# Conclusion

- ▶ Appereance
  - ▶ Eye contact, move, gesticulate
- ▶ Voice
  - ▶ Loud, clear, slow, calmly but dynamically
- ▶ Content
  - ▶ Simple linear structure, without unnecessary details, mantra



**Thank you!**