





Do you want to avoid this ?



Advises for captivating the audience

- Have a message !
- Make attractive slides
- Increase the signal-to-noise ratio
- Pay attention to (body) language and respect timing



3



Building your message

- 1. What is the context?
- 2. What question/problem do you want to address?
- 3. What is your methodology / procedure?
- 4. What results did you get?
- 5. What kind of **information** can you extract from it?
- 6. What are the future actions/decisions to be taken?



At the end of the story, you want your audience to remember the most important information

and to convince them with proper arguments

Example of a 20 min presentation



So what was the message ?

- There is a need to optimize TMD parameters
- Analytical techniques have limitations
- Numerical approaches are too expensive
- Model reduction is introduced to lower computational costs
- It leads to a drastic reduction (2days -> 2min)

Very convincing argument

 This approach should be extended for more realistic load cases and other objectives

> This is your message. How can you deliver it efficiently?



8



Graphical charter, template and layout





Fonts type



This is Comic Sans It's really ugly!

liga

For scientific presentations :

- Prefer sans serif
- Avoid fancy fonts

11



6. Making a presentation



13

Template

	Take a	Madison	Atlas	GALLERY	PARCEL	WOOD TYPE
Bank Presentation	Welcome to PowerPoint	1 Madison	Attas	Gallery	Parcel	Wood Type
	Quotable	Berlin	CELESTIAL	SAVON		CIRCUIT
Ion Boardroom	Quetable	Berlin	Celestial	Savon	Crop	Circuit
DIVIDEND	Frame	Organic	DROPLET	MAIN EVE	ION	MESH
Dividend	Frame	Organic	Droplet	Main Event	lon	Mesh
Facet	VAPOR TRAIL	Wisp	INTEGRAL	BADGE	SLICE	
Front	Manuer Teell	Mine	Internet	Ruder	C Sau	

- The best background for readability is white
- No need to repeat the logos on each slide.
- Prefer the blank presentation

Template : example



15

Sizing and alignment

- Crop your pictures to have similar size
- Align as much as possible



Sizing and alignment : example

- Two sensors
- Pre-amplifier
- Beam heated in the oven at 300 °C
- Vaseline
- Excitation source
- Specialized software





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[from student presentations] 17

Improving sizing and alignment

- Two sensors
- Pre-amplifier
- Vaseline
- Beam heated in the oven at 300 °C
- Excitation source
- Specialized software

















Example : SHM of the Westbury Hotel

The building is assumed to be excited by the wind. This causes vibrations which can be measured with dedicated sensors such as accelerometers or strain sensors.

Our aim is to use the measured data from these sensors in real-time to be able to monitor the structure, i.e. to detect the appearance of damage and possibly locate where the damage has occurred.

This is an important tool to aid for the maintenance of the building

Example : SHM of the Westbury Hotel

What about a nice picture ?



- The building is assumed to be excited by the wind. This causes vibrations which can be measured with dedicated sensors such as accelerometers or strain sensors.
- Our aim is to use the measured data from these sensors in real-time to be able to monitor the structure, i.e. to detect the appearance of damage and possibly locate where the damage has occurred.
- This is an important tool to aid for the maintenance of the building

23

Example : SHM of the Westbury Hotel

And adding simple animations



- The building is assumed to be excited by the wind. This causes vibrations which can be measured with dedicated sensors such as accelerometers or strain sensors.
- Our aim is to use the measured data from these sensors in real-time to be able to monitor the structure, i.e. to detect the appearance of damage and possibly locate where the damage has occurred.
- This is an important tool to aid for the maintenance of the building

Should you read the text exactly?

Example : SHM of the Westbury Hotel

What about making an illustration and reducing the amount of text ?



Objective:

- define a strategy to locate damage based on time-domain data
- compare strain and acceleration measurements

Example : SHM of the Westbury Hotel

Eigenfrequencies and mode shapes

Healthy structure

Eigenfrequencies $\omega_1 = \frac{1}{2\pi} \sqrt{diag(D_1)}$ Eigenfrequencies $\omega_2 = \frac{1}{2\pi} \sqrt{diag(D_2)}$

Damaged structure

Mode shapesMode \cdot Eig function \cdot Eig $[V_{1,}D_1] = eig(mdl.k,mdl.m)$ $[V_{2,}D_{1,}]$

• Flip function $V_{11} = flip(V_1(1:6:498,1))$ Mode shapes Eig function $[V_2, D_2] = eig(mdl.k, mdl.m)$

• Flip function $V_{21} = flip(V_2(1:6:498,1))$

[from student presentations]

What is wrong ?



- Text and no illustration
- All data at once
- Uses undefined quantities (D1, mdl.k, ...)
- Very technical (Matlab code)
- No hint on the difference between damaged and healthy
- Title not very specific



Alternative





Stay away from default graphs





Graphs and information



Graphs and information



Equations

Powerpoint equation editor

$$D^2 = (\varepsilon_z - \widetilde{\varepsilon_z})^2$$

Latex->pdf -> image

 $D^2 = (\varepsilon_z - \tilde{\varepsilon_z})^2$

Iguana Tex

$$D^2 = (\varepsilon_z - \tilde{\varepsilon_z})^2$$

Put only the equations that are necessary to tell your story



33

Pictures







- Pay attention to the background
- Adjust brightness, levels, saturation
- Add information
- (recompose)





Signal-to-noise ratio

- Focus on the necessary information only
- Everything else is noise -> Remove
- If you are not going to discuss a graph/sentence -> Get rid of it
- Avoid as much as possible text if you do not read or explain it



The M&M's bowl



Jean-Luc Doumont (http://www.principiae.be/)



Example : UPV test - slide rearranged





Measurement of time of travel

Example : Resonalyzer test



Is there too much/redundant information on this slide?

[from student presentations]

39

39

Example : Resonalyzer test – slide rearranged





Respect the timing : 20 minutes is 20 slides

Respecting timing is a mark of respect for the jury



- Number your slides !
- Rehearse several times at home
- Speak slowly
- Focus on memorising first few slides
- Breathe, and remember, we have been there before ...

Gain some time : table of contents

Do you need a table of contents?



Most of what you are saying cannot be understood anyhow, so?

Gain some time : talk only about the essential								
Strategy	Telling a story	Linear description						
Organization	Constructing your story around your message	Describing what you have done in details						
Objective	Deliver a message	Convince that you have worked a lot ?						
TRUEStory		44						



Avoid monotonic speech



https://www.youtube.com/watch?v=0_kkfhjgUaE

45

Body language



https://www.youtube.com/watch?v=TmbQFWBvTtY



Tips to make efficient scientific presentations

- Have a message !
- Make attractive slides
- Increase the signal-to-noise ratio
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Presentation of your report

Pitch format (5 slides max) focusing on

- Context
- Global view of SoA
- Critical analysis identifying the gaps
- Proposed work plan and timeline



49



50