Scientific Conference Presentations

Hilary M Jones

If you are collecting Green Card/Training points, please sign in.

For you if:

- You have been to a conference, but not yet given a presentation at one
- You have already given a presentation at a conference and would like some more tips for next time

In this session

- What makes a good conference presentation?
- What to include
- Structure
- Conference presentations vs other types
- Visual aids

In this session

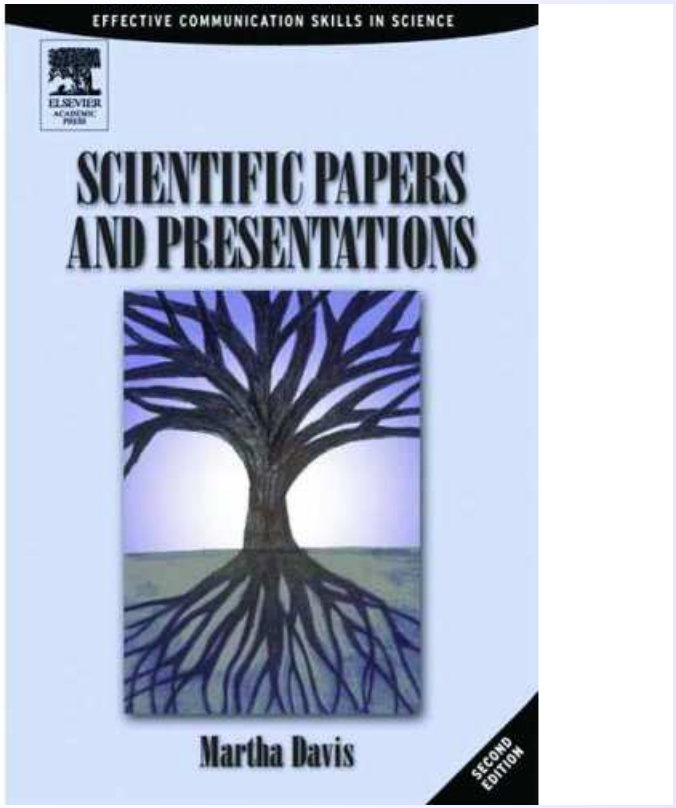
- Presenting yourself
- Tips for non-native speakers
- What could go wrong?
- Dealing with nerves
- Making your presentation accessible

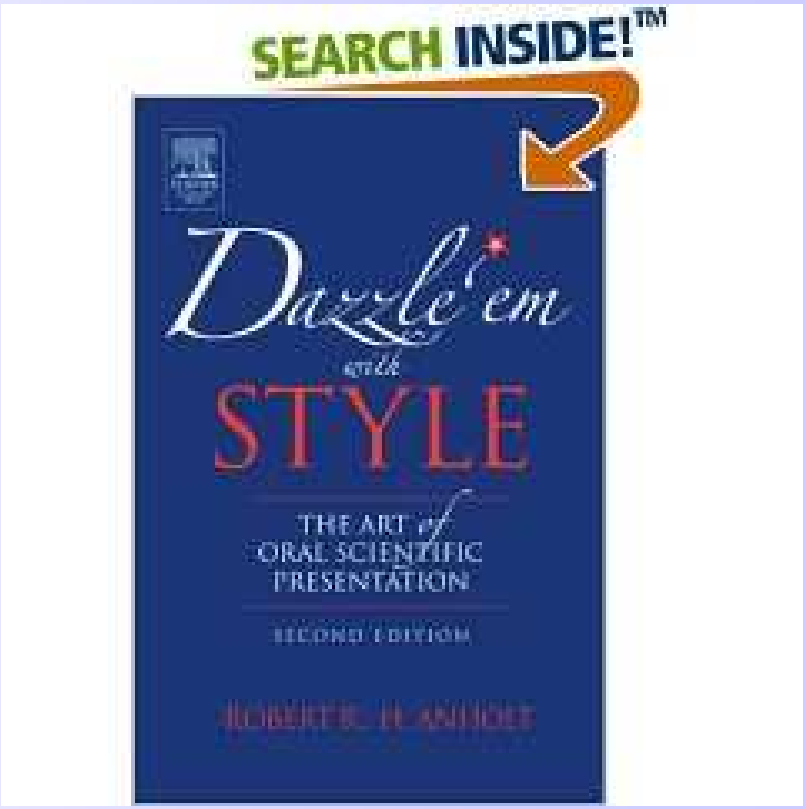
Overlap

- Body language
- Nerves
- General presentation skills tips

May overlap with other presentation skills sessions

Useful references





The worst conference presentation you ever saw

In groups of ~ 3, introduce yourselves and then talk about the worst conference presentation you witnessed.

What made it so bad?

Simple presentation structure

1. Tell them what you're going to tell them ← title, introduction and reason
2. Tell them ← your main story
3. Tell them what you've told them ← reiterate your hypothesis and the take-home message from your story

Structure in more detail…

What to include in a conference presentation – ‘the rules’

- **Title**
- Informative
- Don’t baffle the audience with a complex title

More info in handout.

Introduction

- Hypothesis and objectives
- Rationale and justification for study
- Introduction has logical pattern and relates to other literature and scientific principles

Sidetrack: A word about patents

- If you describe your ‘invention’ to the public before you have registered the patent, it is considered public information, and therefore will not be patented.

Back to the story: Materials and Methods

- Show that your methods are supported by the literature and scientific principles
- Logical, step-by-step process for carrying out the experiment and collecting data
- Explain why you chose your experimental design and statistical analyses

Results and Discussion

- Summarise at the beginning and at the end
- Relate results to objectives Important!
- Limit the number of data points and present them clearly
- Discuss points relating to:
  - other research
  - practical or scientific applications

Conclusions

- Reiterate the main points you want the audience to remember
- Show a list of conclusions and relate them back to your objectives
- Examples of use/application of your findings

Conference presentations vs lab meeting presentations

In small groups:

1. How will the presentation differ from a lab meeting presentation?

2. How will you, the speaker be different?

General Points

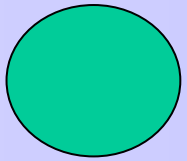
- Formal presentation
- Avoid an over-familiar style
- Avoid colloquialisms
- Definitely don’t swear!

Visual Aids

- Professional
- Easy to read
- Not distracting

  - resist the temptation to include excessive moving images/noises etc

More info in handout.



How could these slides be improved?

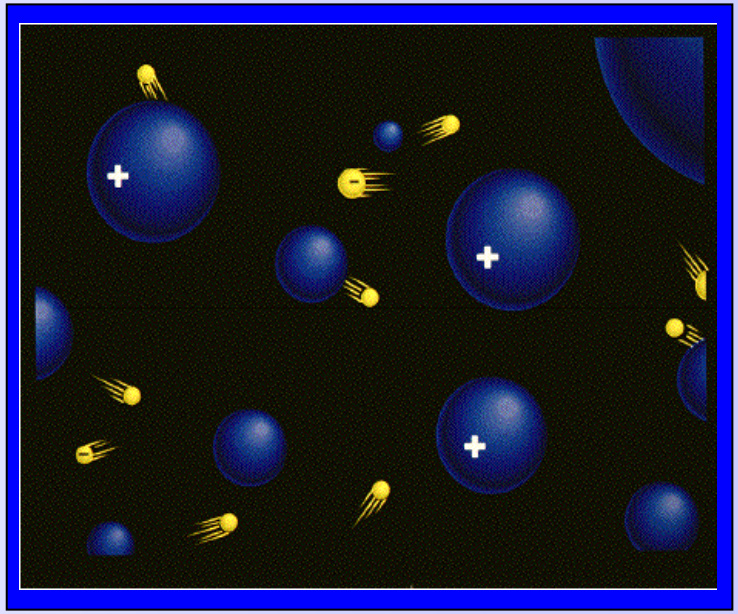
plasma the fourth state of matter

• As a gas gets increasingly hot, the bonds holding the gas molecule together eventually break

• The resulting substance contains charged particles – ions and electrons – but is overall neutral.

• This is a **plasma**.

• Because the particles are **charged** they respond to **electric fields**; because they are **charged** and **moving** they respond to **magnetic fields**



•$\boldsymbol{F} = m\boldsymbol{a} = q\,(\boldsymbol{E} + \boldsymbol{v} \times \boldsymbol{B})$

• It is in a plasma that fusion occurs – heat up deuterium/tritium gas sufficiently that the deuterons & tritons are moving so fast that they overcome their electrical repulsion.

Plasma: the **fourth** state of matter

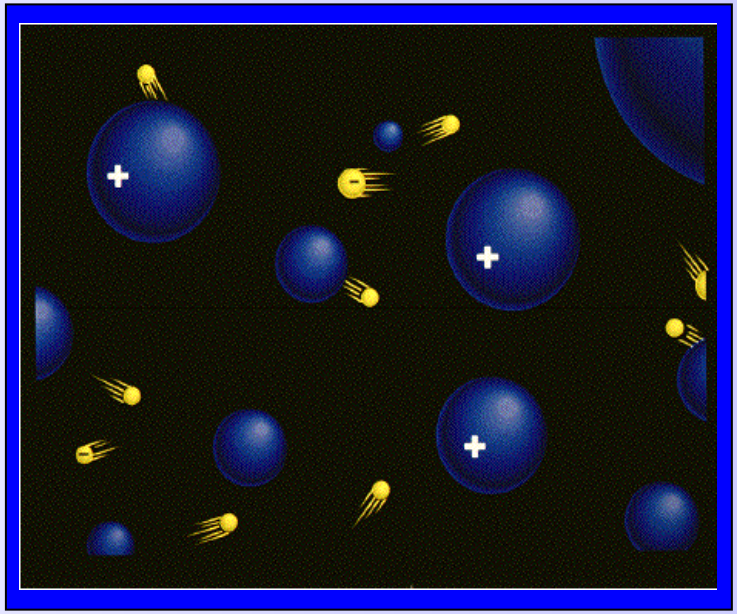
• As a gas gets increasingly hot, the bonds holding the gas molecule together eventually break

• The resulting substance contains charged particles – ions and electrons – but is overall neutral.

• This is a **plasma**.

• Because the particles are charged, they respond to electric fields; because they are charged and moving they respond to magnetic fields.

$\boldsymbol{F} = m\boldsymbol{a} = q\,(\boldsymbol{E} + \boldsymbol{v} \times \boldsymbol{B})$



• It is in a plasma that fusion occurs – heat up deuterium/tritium gas sufficiently that the deuterons & tritons are moving so fast that they overcome their electrical repulsion.

Plasma: the **fourth** state of matter

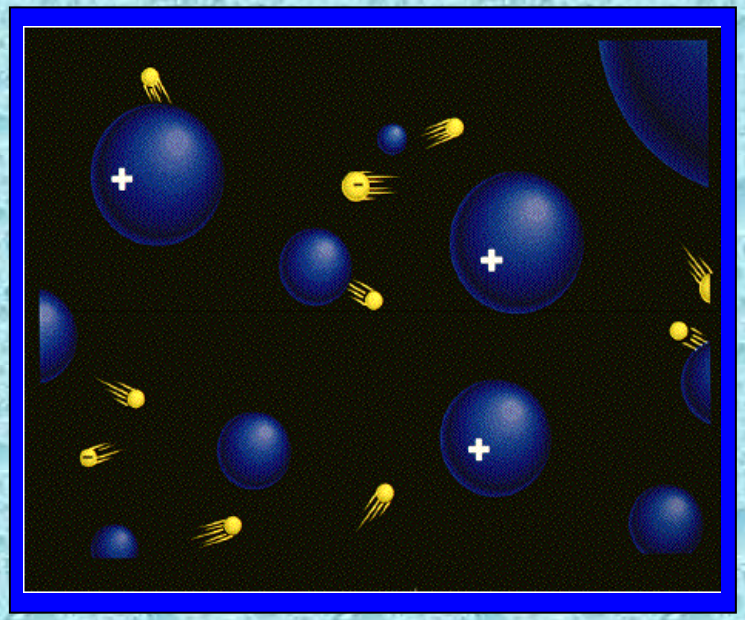
• As a gas gets increasingly hot, the bonds holding the gas molecule together eventually break

• The resulting substance contains charged particles – ions and electrons – but is overall neutral.

• This is a **plasma**.

• Because the particles are charged, they respond to electric fields; because they are charged and moving they respond to magnetic fields.

$$\boldsymbol{F} = m\boldsymbol{a} = q\,(\boldsymbol{E} + \boldsymbol{v} \times \boldsymbol{B})$$



• It is in a plasma that fusion occurs – heat up deuterium/tritium gas sufficiently that the deuterons & tritons are moving so fast that they overcome their electrical repulsion.

Presenting Yourself - Preparation

- Who are your audience and what do they know?
- What equipment will you have?
- Where is the talk?
- How many people?
- How long do you have?

Presenting Yourself - Preparation

Keeping track of the talk:

- Notes on paper?
- Cards?
- Rely on PowerPoint screen?
- Memory?
- Script?

Practise

- 3 times by yourself
- 2 times in front of friends/colleagues
- 1 more time than you think you need to

Timing

- Allow 1 minute per slide
- Time your rehearsals

REMEMBER: no-one is so important that they should overrun

Non-native speakers of English

- Rehearse often, with a native speaker listening
- Record your presentation and listen for areas for improvement
- Structure your slides so that they can be understood even if your words are not (more images/diagrams)

Presenting Yourself - Body Language

- Face the audience
- Eye contact
- Look out for annoying mannerisms
- Dress appropriately
- Stand up straight
- Lift the head
- Project your voice

During the speech

- Volume
- Speed
- Articulation
- Eye contact
- Ends of sentences audible
- Monotony!

Using emphasis

- Change the volume of the voice
- Repeat words or phrases
- Pause

What could go wrong?

What do you worry might go wrong when you give a conference presentation?

Write the scenarios down and we will discuss ways to mitigate/deal with

Nerves

Two types:

- Intangible nervousness – accept the nerves and deal with the symptoms

- Tangible nerves – work hard to reduce the causes - preparation

examples

Nerves

- Dry mouth – water
- Shaky hands – avoid laser pointer/papers
- Shallow breathing – take deep breaths
- Tense muscles – tighten and release
- With practise, nerves make a **better** performance

A word about colours

- Non-differentiation between red and green is relatively common
  (1 in 25 people)

- Double-check that non of your information is conveyed by colour **only**

A word about colours

All cone cells working

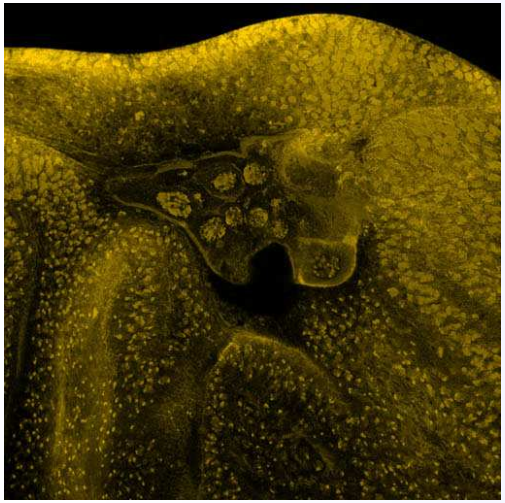
protanope
(red cone cells defective)

deuteranope
(green cone cells defective)

tritanope
(blue cone cells defective)

A word about colours

A typical confocal image



protanope (red)

deuteranope (green)

tritanope (blue)

In this session

- What makes a good conference presentation?
- What to include
- Structure
- Conference presentations vs other types
- Visual aids

In this session

- Presenting yourself
- Tips for non-native speakers
- What could go wrong?
- Dealing with nerves
- Making your presentation accessible

Summary

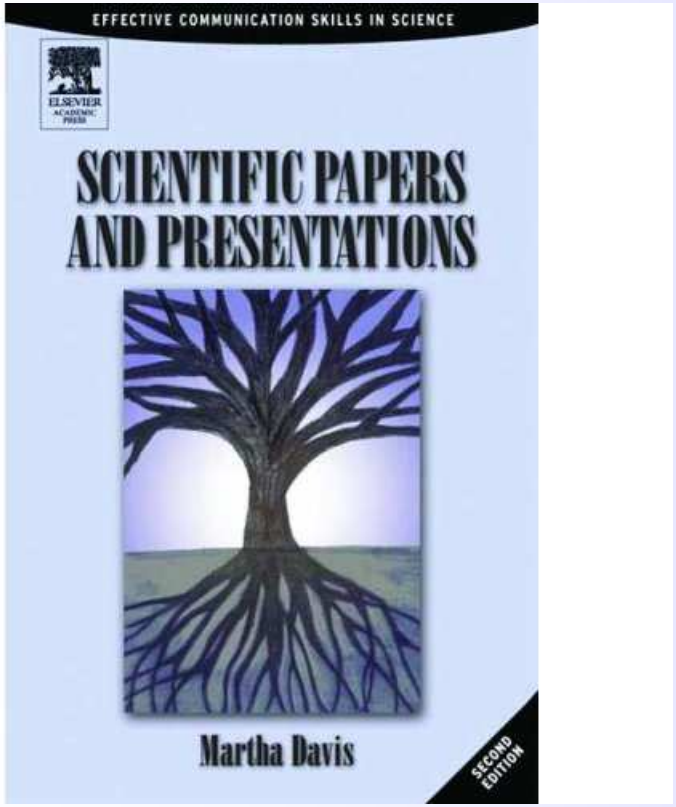
- Make sure that your words and your slides are understood and enjoyed by **everyone**

(someone in the room could be your next employer!)

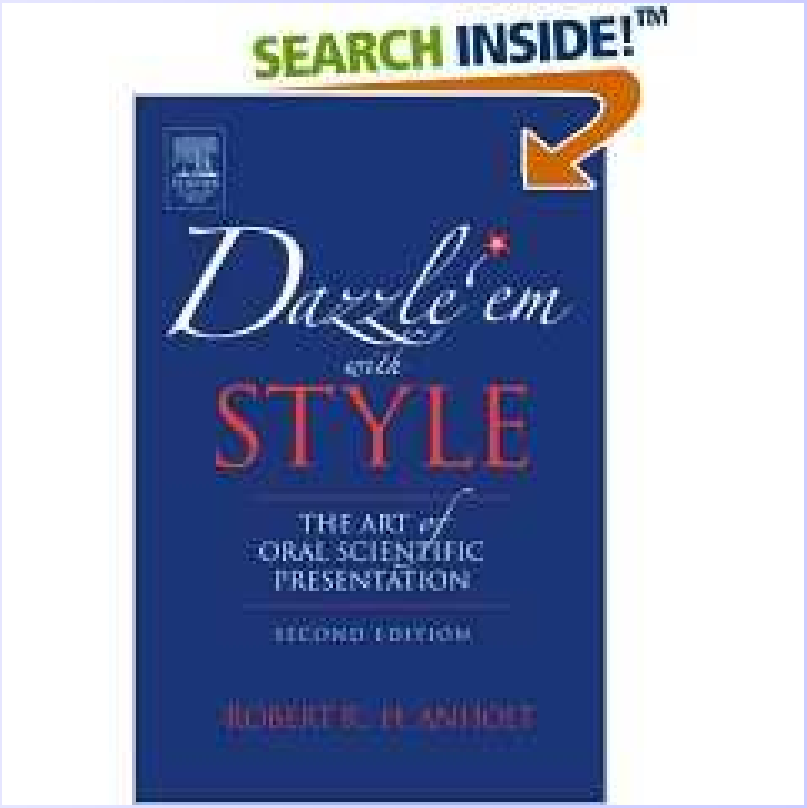
Handout contains

- Print-outs of slides
- How to structure a presentation
- Visual aids
- Thinking on your feet
- Checklist for your conference presentation

Useful references



Scientific Conference Presentations – Martha Davis



Dazzle ‘em with Style. The Art of Oral Scientific Presentation – Robert H Anholt

Contact me

Hilary M Jones

hmj500@york.ac.uk

Tel: 8740

You can find this presentation on the PhD website:

http://www.york.ac.uk/depts/biol/skillsdev/PhDpages/documentbank.htm