

Particle / Astrophysics Seminar

2019/2020

This course

This course

- Oral presentations: an essential academic skill

This course

- Oral presentations: an essential academic skill
- “Learning by doing”
 - Give presentations, get feedback from others

This course

- Oral presentations: an essential academic skill
- “Learning by doing”
 - Give presentations, get feedback from others
- Broaden your knowledge and learn about research topics within IMAPP.

General format

General format

- Each student gives a seminar during the spring semester of 2020

General format

- Each student gives a seminar during the spring semester of 2020
- Duration: 30 min, followed by comments, questions and advice by fellow students and others in audience

General format

- Each student gives a seminar during the spring semester of 2020
- Duration: 30 min, followed by comments, questions and advice by fellow students and others in audience
- Evaluation: pass or fail. In addition to your own talk, passing the course also requires attending the talks of your fellow students!

Time and place

- Wednesday 10:30 - 12:15
- First time: TBD (a schedule will be made in January based on registrations in Brightspace)
- If you *really really* cannot make it on the day you are scheduled, you may swap with someone else.

Web page

<http://www.astro.ru.nl/~slarsen/teaching/Seminar/>

- Links to advice on giving presentations
- Schedule of seminars

Topics

- In general: seminar will be based on a paper from the scientific literature
- Some suggestions will be provided (see e.g. https://www.astro.ru.nl/wiki/news/seminars/student_seminars)

General advice - I.

What is the *message*?

General advice - II.

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.
- Stay within allotted time

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.
- Stay within allotted time
- Speak loud and clearly - keep eye contact with audience

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.
- Stay within allotted time
- Speak loud and clearly - keep eye contact with audience
- Practice your talk before delivering it. And practice. And practice

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.
- Stay within allotted time
- Speak loud and clearly - keep eye contact with audience
- Practice your talk before delivering it. And practice. And practice
- Avoid too many words on slides.

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.
- Stay within allotted time
- Speak loud and clearly - keep eye contact with audience
- Practice your talk before delivering it. And practice. And practice
- Avoid too many words on slides.
- Max ~1 slide per minute

General advice - II.

- Know your audience! Include sufficient introductory material, avoid information overload.
- “Tell a story”. Our brains are wired to listen to stories - not memorising random collections of facts.
- Stay within allotted time
- Speak loud and clearly - keep eye contact with audience
- Practice your talk before delivering it. And practice. And practice
- Avoid too many words on slides.
- Max ~1 slide per minute
- Test equipment beforehand!

What the seminars are *not*:

- *Journal club*: Review and in-depth discussion of a single paper
- *Lectures*: given in the context of a course, often involving more detailed derivations of results/relations, supported by exercises, assignments, tutorials, etc.
- *Master's thesis seminar*: you will have an opportunity for that later.



Giving talks

Writing papers

Bill Harris
McMaster University, July 2004

Talks for professional audiences

Type of audience

Journal club

Talks in grad courses

Review for your supervisory committee

CASCA meeting

Seminar as visitor somewhere else

Conference talk

“Job talk” seminar

Presentation for gov’t committee

Intimidation factor

Friendly, supportive



Interested, neutral



Hostile or not interested

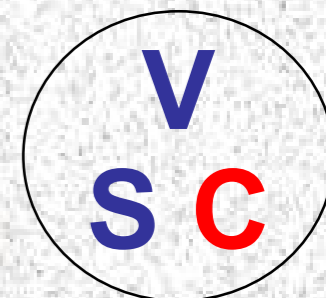
Constructing your talk

The most important step.

- Design it for *your* audience – not some generic audience. Don't *adapt* a previous talk – *rebuild* it.
- Design it for your allotted time.
- **Select, select, select.** Don't try to say *everything* you did (leave that for the published paper). Select **two major things*** you want the audience to remember!! **Less is more!**

(* For a poster, *one* major thing.)

- **Clarity first.** Audience should leave with a clear picture of what you did. Stick to your outline and then stop. (Who's going to be offended if you stop a bit *early*?)
- **Style and rhetoric second.** Stick to your material, don't generate distractions of your own



PowerPoint files

Really good for graphs, images, animations (non verbal communication)

Match the background to the ambient lighting in the room

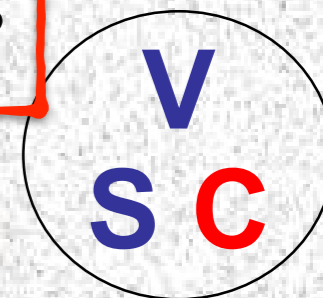
But keep the *text* very sparse – just an outline for what you say

Talk to the people in the audience and not your laptop

*The fundamental relation you want to set up is between the audience and **you** – not the audience and the screen. They are not watching a TV show. **The PP file is a supplement to the talk, not the talk itself***

Could you give the talk from a Powerpoint file that had no text at all – just illustrations?

Could you give your talk if the visual aids failed completely?



Math, figures, etc

Math, figures, etc

- Only include equations if absolutely necessary. Give your audience time to digest them, make sure they are sufficiently *explained*.

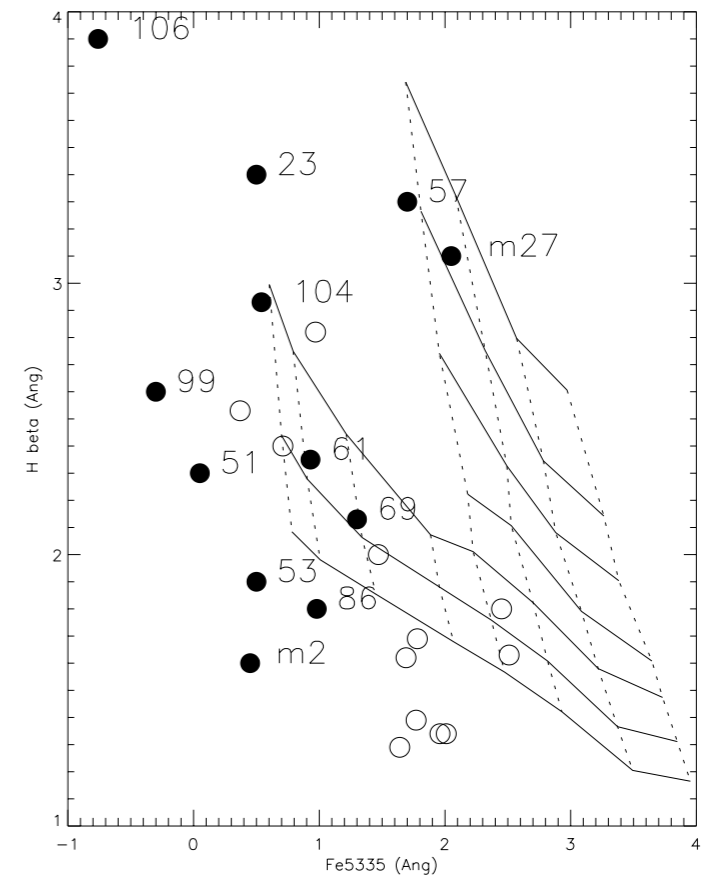
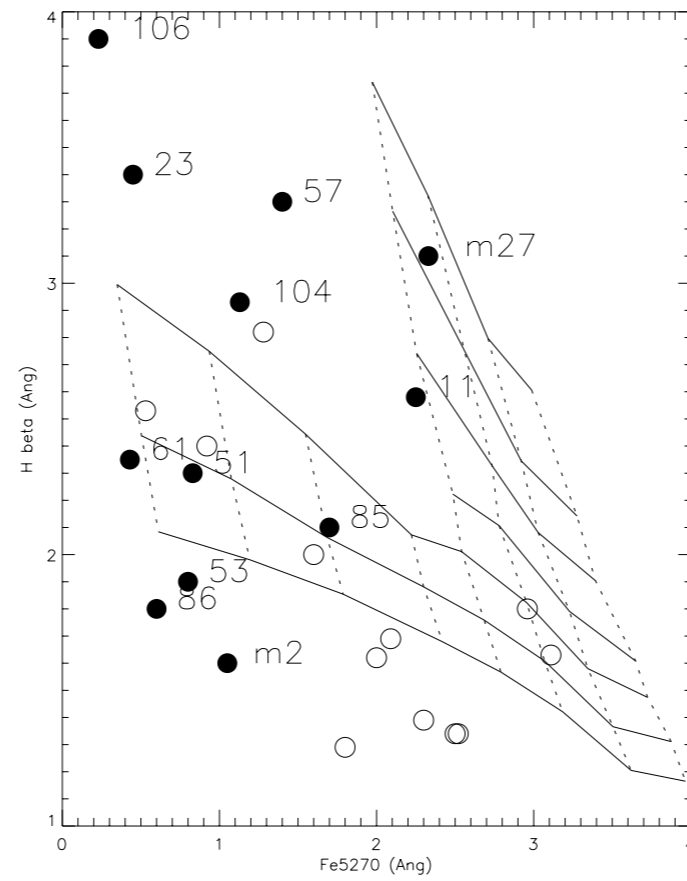
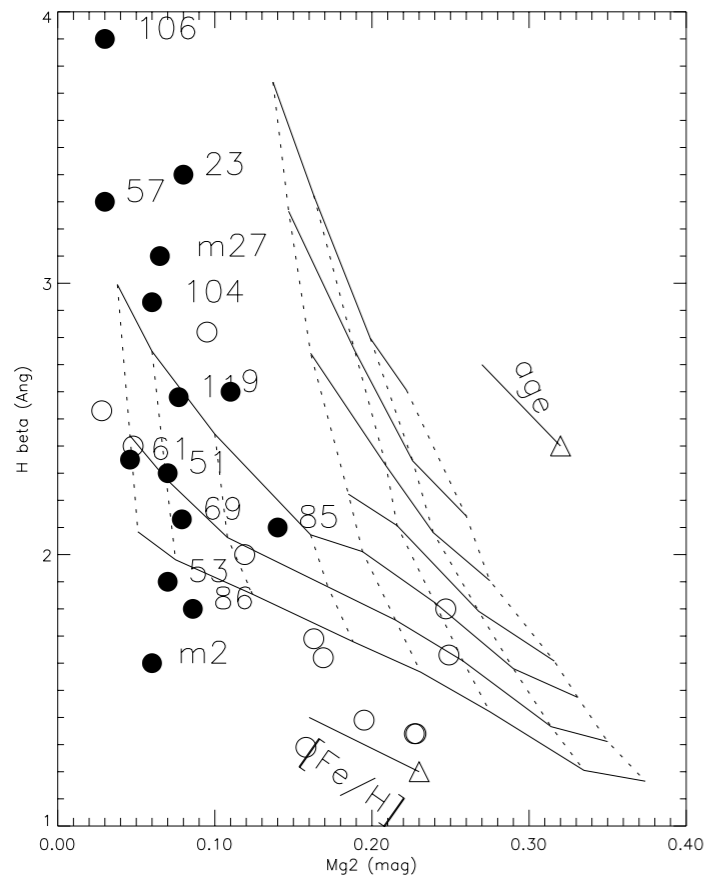
Math, figures, etc

- Only include equations if absolutely necessary. Give your audience time to digest them, make sure they are sufficiently *explained*.
- Make sure figure legends, labels, etc. are legible. Again: *explain* axes, different curves, etc.

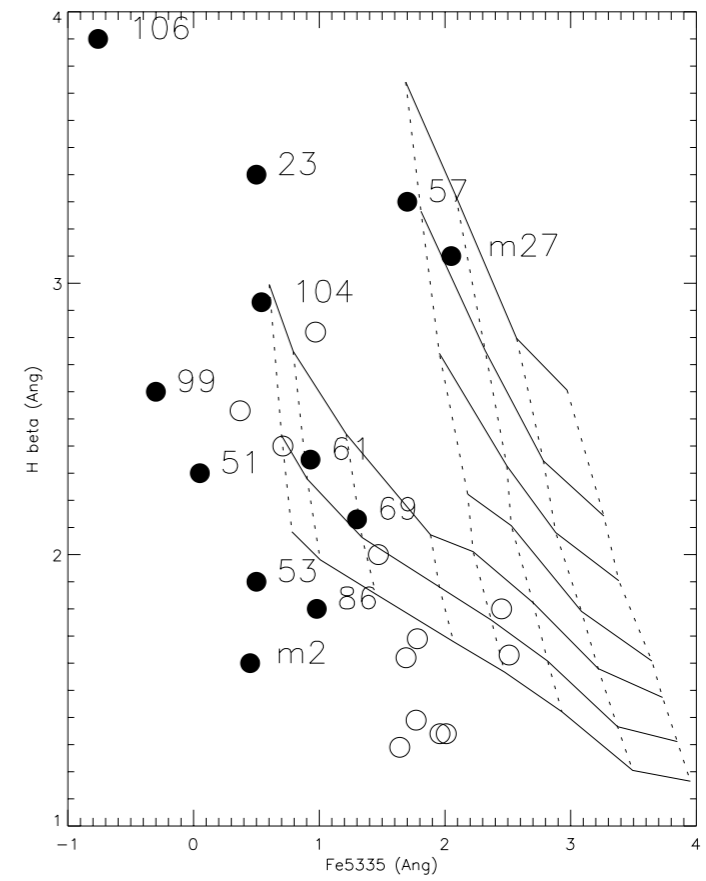
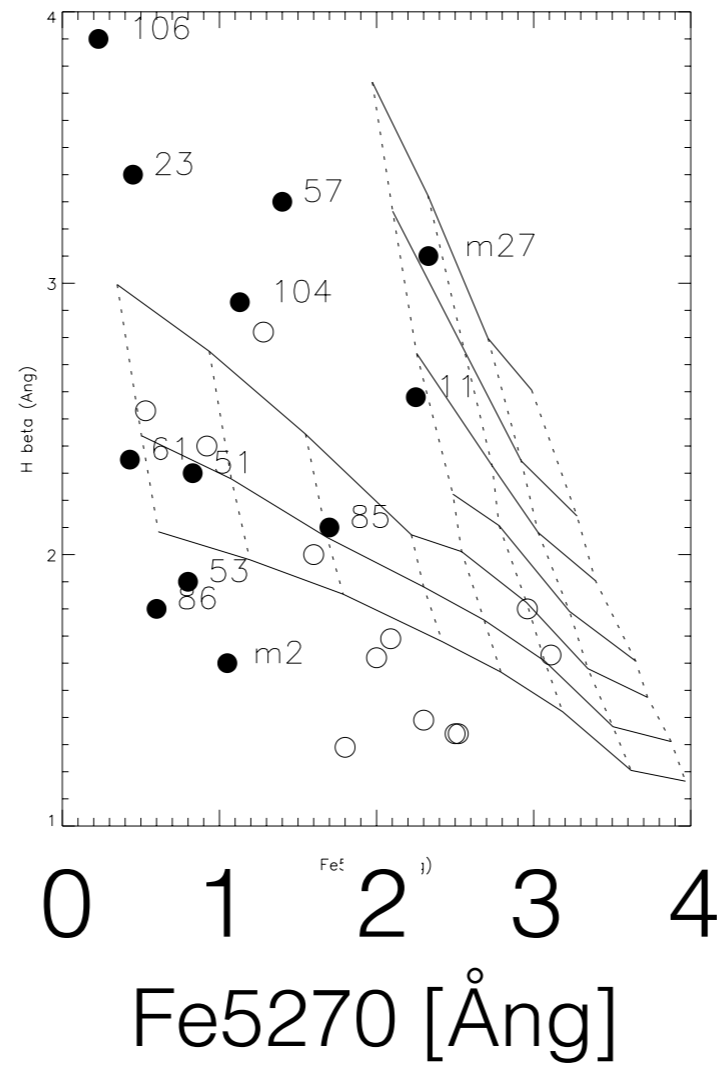
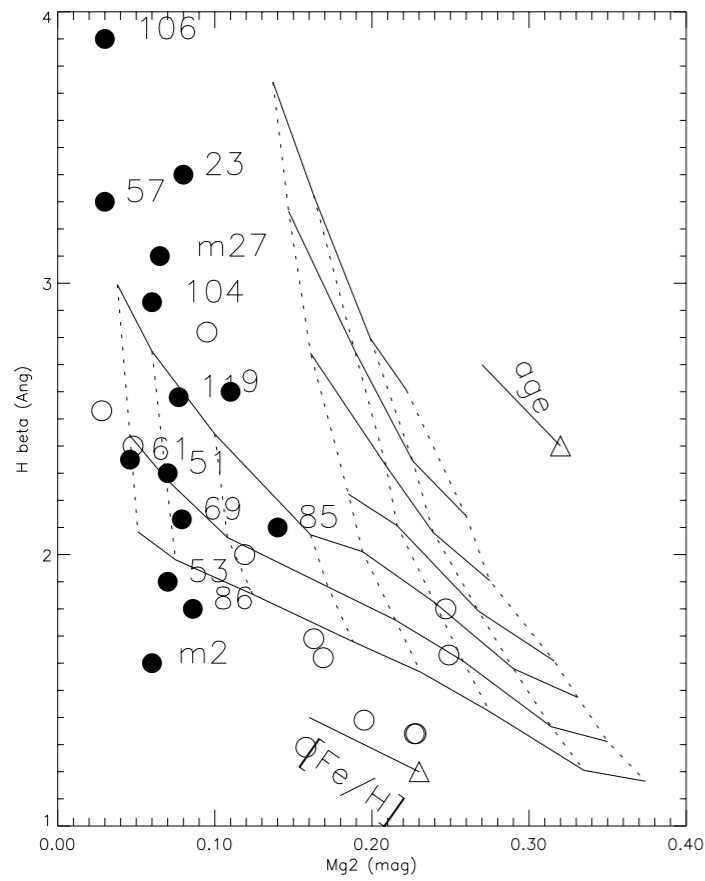
Math, figures, etc

- Only include equations if absolutely necessary. Give your audience time to digest them, make sure they are sufficiently *explained*.
- Make sure figure legends, labels, etc. are legible. Again: *explain* axes, different curves, etc.
- Tables should generally be avoided

Can you read the axis labels?



Can you read the axis labels?



Sometimes authors need a little help!

Equations

My latest key result:

$$\partial_t \int_0^1 dx \int d\omega e^{i(\omega t - kx)} f(ax, gt) C_{23}(t-t') [a^\dagger(t') b(x)] = b(t') \delta(x-ct) + \text{h.o.t.} \dots$$

Really?

About bad color choices

Good colour Bad color Good colour
Bad color

Bad or good colour?
Bad color
Bad color Good colour

Bad color bad bad!@!

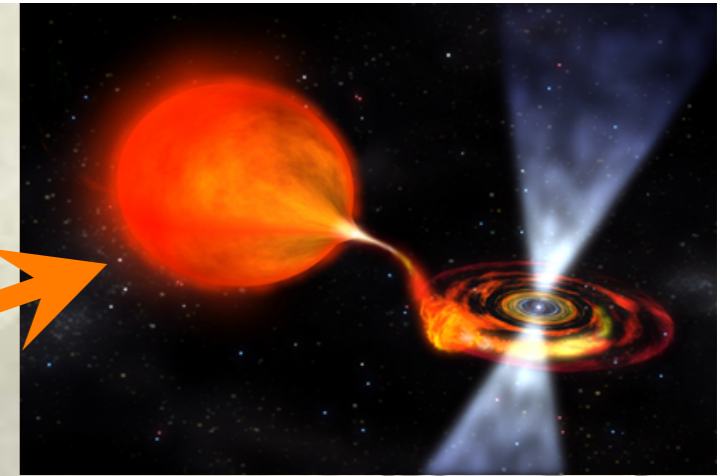


Fancy Backgrounds

❖ Can be just wonderful

❖ But can you read all this text?

The Circus Slide



- ❖ Uses many different fonts, colours, and pictures to **EMPHASIZE** things

I did say circus, didn't I?!

