

# Exoplanet detection, formation and evolution

Prof. Dr. Katja Poppenhäger

email:

[kpoppenhaeger@aip.de](mailto:kpoppenhaeger@aip.de)

# Code of conduct

We encourage questions and people saying they don't understand something.

We treat everyone with respect, no matter what their race, gender identity, sexual orientation, age, religion, nationality, disabilities or other identity characteristics are.

# Pronouns

I use she/her pronouns.

I will use your pronouns, whatever you tell me they are.

# Format

“Lecture + seminar”:

45 min traditional lecture

45 min active learning with your participation

# Course materials

I make all slides and other electronic media (papers, simulations, data sets) available to you:

[www.katjapoppenhaeger.com/?page\\_id=799](http://www.katjapoppenhaeger.com/?page_id=799)

(or from the main page, click “Misc” → “Teaching”).

I do not provide a traditional set of lecture notes for the things I write onto the blackboard.

I encourage you to take collaborative lecture notes, for example through a Google document.

# Grading

For Master's degree in Astrophysics:

Need pass/fail grade.

Minimum to achieve “pass” grade:

In the final 2 months of this course, we will read & discuss several scientific papers on the topic of exoplanets.

Your active participation will be to send me an email with the NASA ADS link to a paper you would like to discuss, and 1 written paragraph why you would like to discuss that paper.

Plus active participation in hour 2 each week.

# Grading

For Master's degree in Physics:

Need actual numeric grade.

You need to contact me so that I can define the graded task for you. It will likely take the form of leading the discussion of a scientific paper in the class, or similar.

Plus active participation in hour 2 is expected each week.

# Active learning and participation

Active learning: students try to solve things themselves / in small groups during (parts of) the lecture time, actively engage with the material.

2 people will facilitate your learning:

Myself and Ekaterina Ilin, a PhD student from my group.

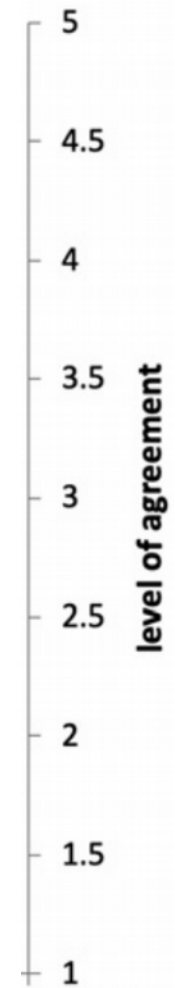
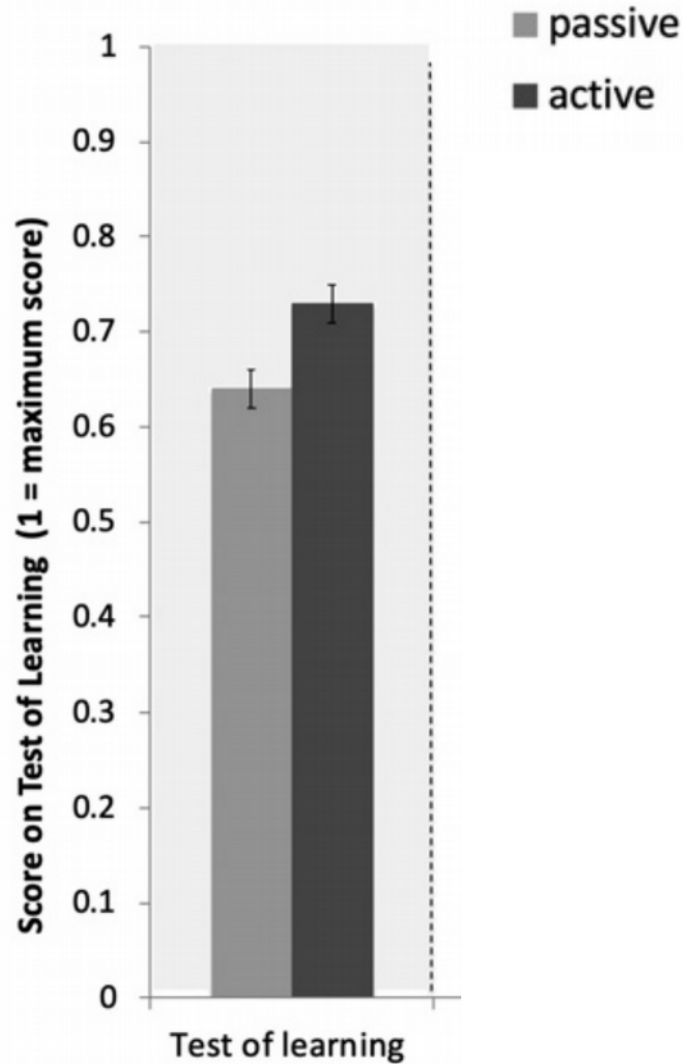


# Active learning and participation

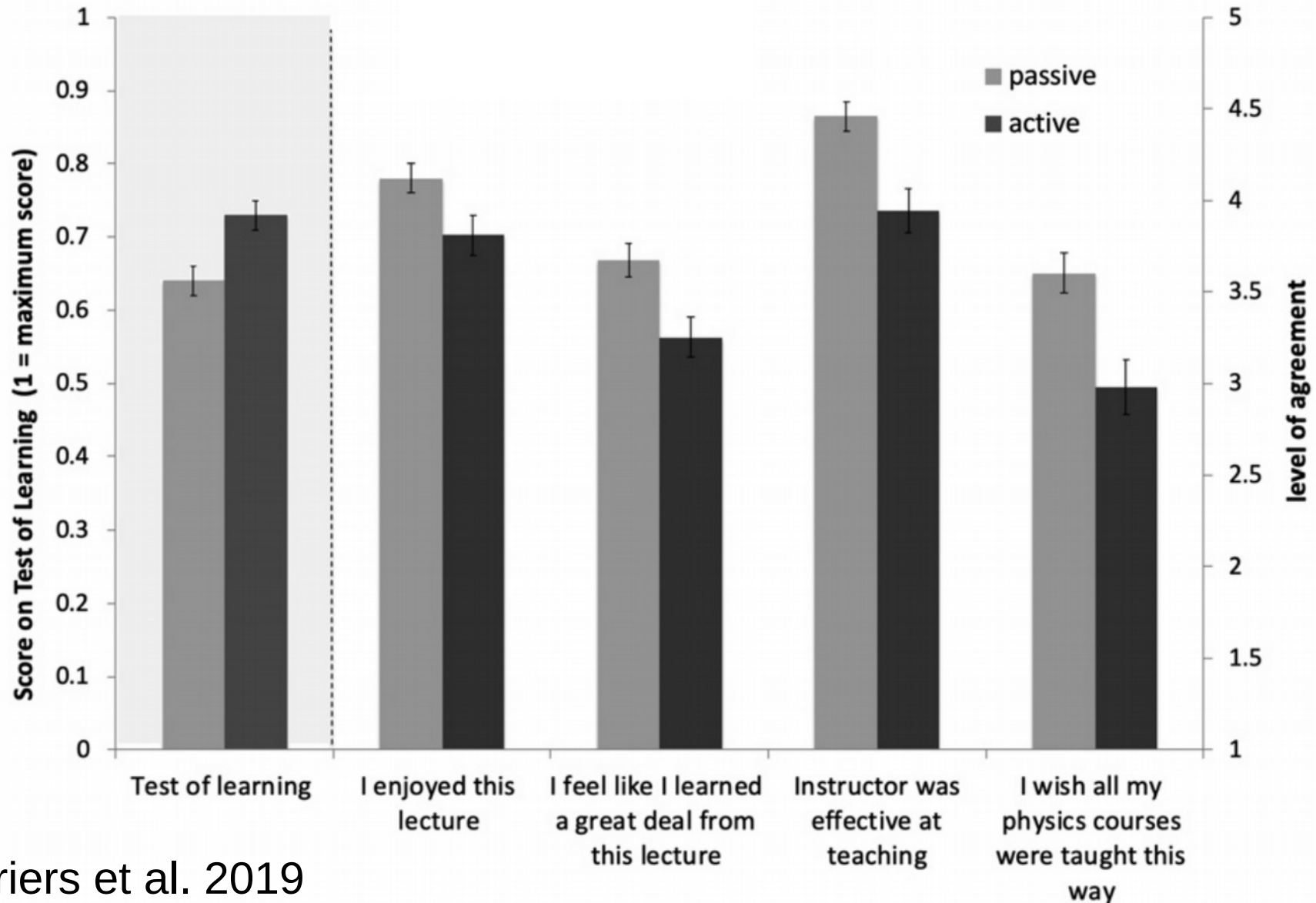
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Studies show that students learn the material better when they engage in active learning:

# Active learning and participation



# Active learning and participation



# Active learning and participation

## **Active learning feels worse for the student!**

Some ideas why that might be are:

Students encounter failure more often when actually applying new knowledge

Working through a new problem is less entertaining than listening to a well-designed lecture

# Active learning and participation

## **Active learning feels worse for the student!**

Some ideas why that might be are:

Students encounter failure more often when actually applying new knowledge

Working through a new problem is less entertaining than listening to a well-designed lecture

**Be aware of this effect and don't let it discourage you.**

# Active learning and participation

If you are struggling with the material, you can come talk to me or Ekaterina and we will help you.

If you are struggling with other studies-related things, you can come to me and I will help you.

# Science!

This class is about exoplanets.

But first things first: how do we actually do science?