

Wir feiern 200 Jahre KIT!

# Fakultät für Physik

Karlsruher Institut für Technologie

## Information event on The Doctoral Exam: Public or Not?

Are you curious about why the doctoral defense is partly public and partly taking place behind closed doors? Wondering if this is the best way to do it?

### Join us as we:

- explain the current procedure
- explore alternative ideas
- open the floor for discussion and your perspectives

**Date:** 23rd of July 2025

**Time:** 18:00

**Location:** Small Lecture Hall B



Organised by the KIT-Faculty of Physics and  
the Physics PhD Student Council

# Your Doctoral Exam: an important date

- concise and more detailed information is available via our [webpage](#)

## Doctorate

The department awards the scientific doctoral degree "Doktor:in der Naturwissenschaften" (Dr. rer. nat.) for independent research in one of the department's [research areas](#). At KIT, doctoral researchers find a stimulating scientific environment for their research that goes beyond their own area of expertise. The research work usually takes place at one of the institutes, in cooperation with a scientific supervisor and other researchers of the research groups.

There is no centrally organized application portal for doctoral researchers at the department. Applications should be addressed to prospective supervisors. The relevant topics and researchers can be found under [Research](#). It is possible to apply even if there is no explicit advertisement.

Doctoral researchers are often involved in further scientific networks, e.g. via the [KIT Centers](#) or [coordinated research programs](#), and/or in [structured doctoral programs](#). At KIT there are [guidelines for doctoral studies](#) that give an overview of essential aspects to get a doctoral degree.



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- concise and more detailed information is available via our [webpage](#)

## Regulations and documents

- **PhD Regulations of the KIT Department of Physics of March 27, 2017.** \*  
in addition: **Amendment of the PhD Regulations of the KIT Department of Physics of October 26, 2018.** \*\*  
If the conclusion of a doctoral agreement or the acceptance as doctoral candidate took place after March 27, 2017, the doctoral project is subject to these doctoral regulations.  
**PhD Regulations of the KIT Department of Physics of March 27, 2017 including Amendment of October 26, 2018** (english version, not legally binding) \*\*\*
- Suggested **title page design** for doctoral thesis: [English version](#) and [German version](#)

- \* [Promotionsordnung-2017.pdf](#)
- \*\* [Promotionsordnung-2017-aend1.pdf](#)
- \*\*\* [Promotionsordnung-2017-engl.pdf](#)

**Regulations of Karlsruhe Institute of Technology (KIT) for the Award of the Doctoral Degree in Natural Sciences (Dr.rer.nat.) at the KIT Department of Physics**

dated March 27, 2017

# Your Doctoral Exam: very first steps

- concise and more detailed information is available via our webpage

## Questions about the doctorate

**Corinna Knodel-Rupp**

E-Mail: [dekanat@physik.kit.edu](mailto:dekanat@physik.kit.edu)

Physics high rise building 9/14

Phone: +49 721 608-42052

**Prof. Dr. Kirill Melnikov**

Recognition of diplomas, MSc. etc. (especially from abroad)

E-Mail: [kirill.melnikov@kit.edu](mailto:kirill.melnikov@kit.edu)

Physics high rise building 11/06

Tel. +49 721 608-43883

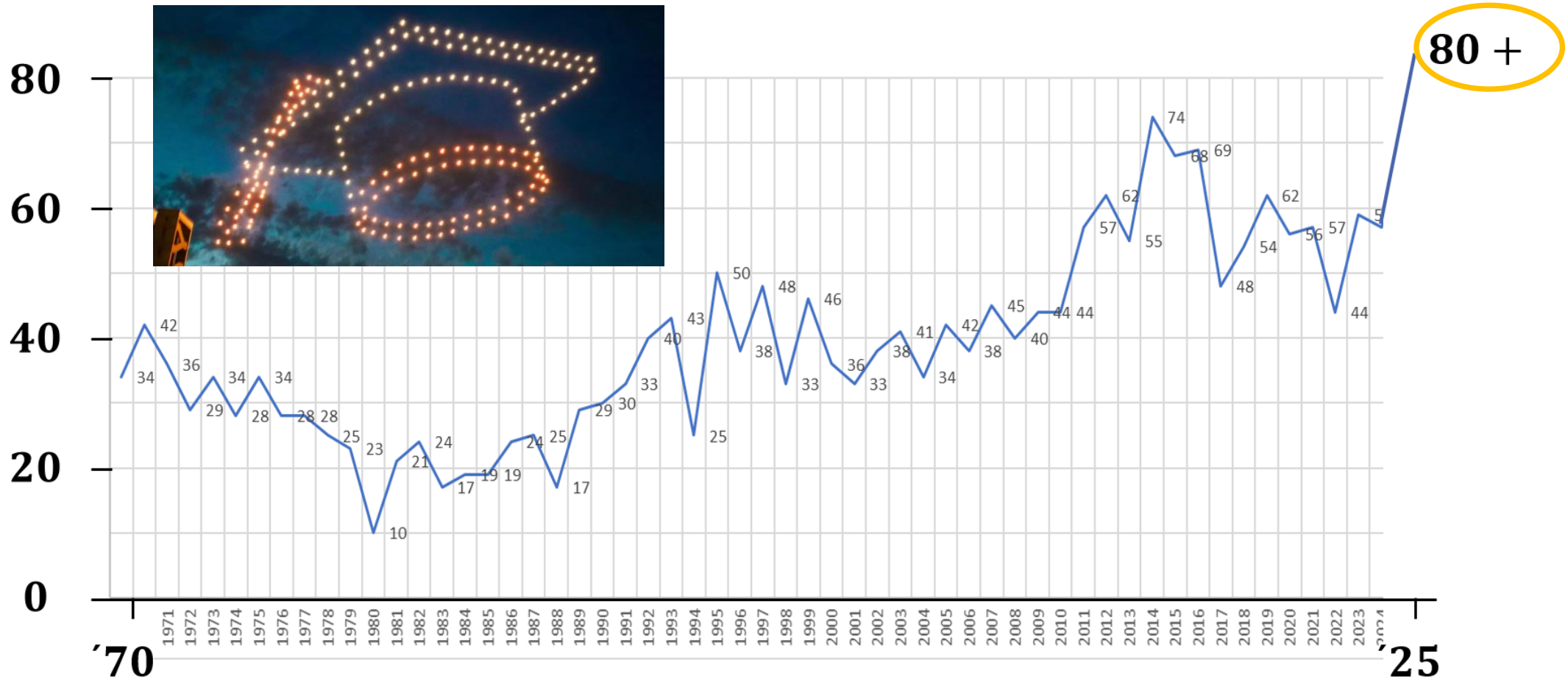


please do contact her early\*  
i.e. when you are in the last  
stages of writing & have talked  
to your supervisors...)

\*i.e **exactly three months** before  
the desired defense date

# *PhD* defenses at our *KIT* – faculty

- strong increase in the number of *PhD* defenses in recent years





# Your Doctoral Exam: very first steps

- You will receive an **automated email** to your request that will read as

Dear *PhD* – candidate,

we have received your request for an examination date for your oral PhD-examination. The Department of Physics will do its best to fulfill your request. However, this is not always possible due to the **high demand**, especially at the **beginning and end of the lecture periods**.

We therefore ask you to **name two alternative dates** in addition to your **preferred date**. Please clarify for all three dates that **your thesis advisor and your second advisor can also attend** this date and send us a corresponding confirmation with the signature of the lecturer. This can be done by e-mail.

# Your Doctoral Exam: very first steps

- You will receive an **automated email** to your request that will read as\*

The dates will be allocated upon receipt, at the earliest three months before the examination date.

We ask for your understanding that it is not always possible to get the preferred date.

\*text coordinated yesterday

# Your Doctoral Exam: basic info

## ■ Corresponds to **step 6** in docata

Step 1: Conclusion of a Doctoral Agreement ▼

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Step 2: Registration with KHYS ▼

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Step 3: Application for Acceptance at your KIT Department ▼

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Step 4: Enrollment as a Doctoral Researcher ▼

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Step 5: Application for Admission to the Doctoral Procedure and Opening of the Procedure ▼

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**Step 6: Oral Exam ▲**

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At KIT the oral exam is either done as a **colloquium** or as a doctoral viva. Please refer to the respective doctoral ordinance to see which exam type applies for your KIT department. [[▶ more](#)]

Step 7: Publishing your Dissertation ▼

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Step 8: Disenrollment/Deregistration ▼

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Step 9: Issuance of the Doctoral Degree Certificate ▼

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# Your Doctoral Exam: basic info

- Corresponds to **step 6** in docata

## Karlsruhe House of Young Scientists (KHYS)

Home > Doctoral Researchers > Formal Steps > **Oral Exam**

## Oral Exam

At KIT the oral exam is either done as a colloquium or as a doctoral viva. Please refer to the respective ► **doctoral ordinance** to see which exam type applies for your KIT department. Normally you will be told the overall result of your doctorate right after your oral exam.

The **colloquium** includes a scientific presentation, generally about your dissertation, as well as a subsequent discussion, known as the disputation.

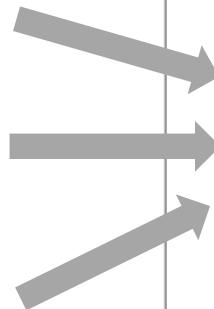
# Confirmed date of the Doctoral Exam

- $T_0$  – 2 weeks: Frau Knodel sends out **an invitation by email** to many people

all other *KIT* – deans

members of our faculty

**you, the candidate**





Karlsruher Institut für Technologie

**KIT-Fakultät für Physik**  
**Der KIT-Dekan**  
Prof. Dr. Guido Drexlin  
Wolfgang-Gaede-Straße 1  
Physik-Hochhaus, Geb. 30.23  
76131 Karlsruhe

KIT-Campus Süd | KIT-Fakultät für Physik | Wolfgang-Gaede-Straße 1 | 76131 Karlsruhe

An den Präsidenten des Karlsruher Instituts für Technologie  
Herrn Prof. Dr. Jan S. Hesthaven

an die Dekane der KIT-Fakultäten

an die Mitglieder des engeren Lehrkörpers  
der KIT-Fakultät für Physik

an die Kandidaten

Telefon: +49 721 608- 42052  
Fax: +49 721 608- 46663  
E-Mail: [dekanat@physik.kit.edu](mailto:dekanat@physik.kit.edu)  
Web: [www.physik.kit.edu](http://www.physik.kit.edu)

Datum: 4. Juli 2025

**Einladung zu den mündlichen Doktorprüfungen (Dr. rer. nat.).**  
**Fakultätsöffentlicher Vortrag nach PO vom 27.03.2017**

Ort: Physik-Hochhaus, 10. Obergeschoß, Zimmer 01  
Zeit: Freitag, 18. Juli 2025

# Invitation to the Doctoral Exam

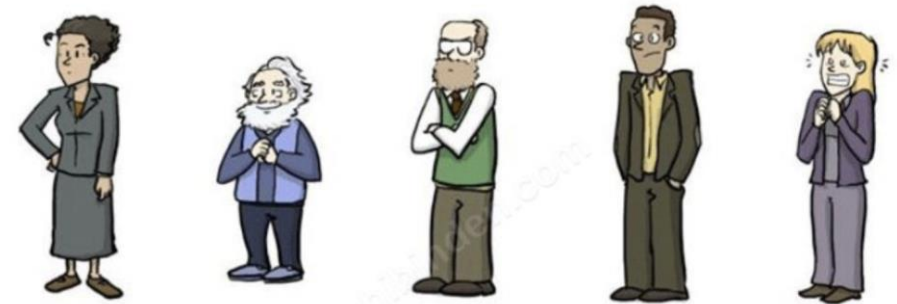
- $T_0$  – 2 weeks: you now know **your thesis committee (usually 5 people)**

08:00 Uhr M.Sc. Simon Günzler

Titel der Dissertation: Spin Coupling to Superconductors

Vorsitz:	Prof. Dr.
Referent:	Prof. Dr.
Korreferent:	Prof. Dr.
Prüfer:	Prof. Dr.
Prüfer:	Prof. Dr.

## YOUR THESIS COMMITTEE



09:45 Uhr M.Sc. Adrian Reich

Titel der Dissertation: Quantum phase transitions in topological materials

Vorsitz:	Prof. Dr. G. Drexlin
Referent:	Prof. Dr.
Korreferent:	Prof. Dr.
Prüfer:	Prof. Dr.
Prüfer:	Prof. Dr.



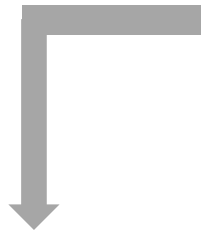
the **dean** usually serves as the **chair** of the **thesis committee**

# Invitation to the Doctoral Exam

- $T_0$  – 2 weeks: you now know **the chair of your thesis committee**

08:00 Uhr M.Sc. Simon Günzler

Titel der Dissertation: Spin Coupling to Superconductivity



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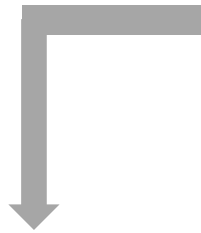
the **scientific expertise** of the chair of the committee (dean, vice-dean,...)  
**may or may not perfectly align** with your *PhD* work  
(particle/astroparticle physics, quantum materials & systems, optics & photonics,  
geophysics, meteorology & climate physics)  
(experiment, theory, data science...)

# Invitation to the Doctoral Exam

- $T_0$  – 2 weeks: you now know **the chair of your thesis committee**

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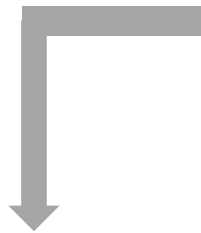
the chair already has a copy of your work, and will send out **an invitation via Frau Knodel to meet you** (also to the other *PhD* students that defend on the same day). There, you can **briefly report on your work**, and the chair will again discuss the **procedure** and the specifics of the location of your defense.

# Invitation to the Doctoral Exam

- $T_0$  – 2 weeks: you now know **your thesis committee (usually 5 people)**

08:00 Uhr M.Sc. Simon Günzler

Titel der Dissertation: Spin Coupling to Superconductors



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Korreferent:	Prof. Dr.
Prüfer:	Prof. Dr.
Prüfer:	Prof. Dr.

you know these people

they have **studied** your written thesis in its **entirety**

they will write detailed reports on your work and grade it



# Invitation to the Doctoral Exam

- $T_0$  – 2 weeks: you now know **your other examiners related to your field**

08:00 Uhr M.Sc. Simon Günzler

Titel der Dissertation: Spin Coupling to Superconductors

Vorsitz:	Prof. Dr.
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Prüfer:	Prof. Dr.
Prüfer:	Prof. Dr.

you should know these people

**theo.**  
**exp.**

the **scientific expertise** of **two other examiners** is chosen so that it **closely aligns with your *PhD* work**

(particle/astroparticle physics, quantum materials & systems, optics & photonics, geophysics, meteorology & climate physics)

**one**: specific expertise in **experiment**, **one**: specific expertise in **theory**

# Invitation to the Doctoral Exam

- $T_0$  – 2 weeks: you now know **your other examiners related to your field**

08:00 Uhr M.Sc. Simon Günzler

Titel der Dissertation: Spin Coupling to Superconductivity

Vorsitz:	Prof. Dr.
Referent:	Prof. Dr.
Korreferent:	Prof. Dr.
Prüfer:	Prof. Dr.
Prüfer:	Prof. Dr.

these people should know your work

do make an **appointment** with these people to present them your thesis work (& **leave them with a digital/printed copy**)

usually, during your visit, they may also give you **some hints** what interests them most in relation to your **PhD** work (& do not be surprised if they follow suit)

# Invitation to the Doctoral Exam

- time slots: allocated depending on the **availability of your examiners**

08:00 Uhr M.Sc. Simon Günzler

Titel der Dissertation: Spin Coupling to Superconductivity

Vorsitz:	Prof. Dr.
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Korreferent:	Prof. Dr.
Prüfer:	Prof. Dr.
Prüfer:	Prof. Dr.

not your concern



why am I allocated to this early (late) time?

the availability has been pre-checked\* via an official file (lectures on Fridays, absence due to conferences or other unavailabilities)

\* only then some colleagues realize (rather late!)  
that they did not forward their unavailability...

# Your Doctoral Exam: available slots

- time slots: a rather **stringent schedule** each Friday during the semester

<b>slot #1</b>	<b>8:00 – 9:30</b>
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<b>slot #2</b>	<b>9:45 – 11:15</b>
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<b>slot #3</b>	<b>11:30 – 13:00</b>
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<b>slot #4</b>	<b>14:00 – 15:30</b>
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extra slot (only when needed)

# Your Doctoral Exam: procedure

- time slots: rather **stringent time schedule** for your *PhD* defense

slot # $x$

90 *min.*

- 20 *min.* **oral presentation** by you on your *PhD* topics
- 5 ... 10 *min.* **reports** by the 2 reviewers on your thesis
- 50 ... 55 *min.* **questions** by the 5 committee members
- 5 ... 10 *min.* **discussion** by the 5 committee members

# Your Doctoral Exam: where do I defend?

■ Usually will take place in **seminar room 10 – 1** in building :

- usually, the oral exam of the *PhD* candidate before your slot finishes a few minutes before so the previous *PhD* committee will then leave room **10 – 1**



- be there ~**15 min** before your slot





# Your Doctoral Exam: how do I defend?

- Your view\* during your **20 min. presentation** of key topics of your *PhD* work



*HDMI*



# Your Doctoral Exam: how do I defend?

## ■ the view of the **attendees** during your public presentation

- you are familiar with the beamer
- check the first slides of your talk briefly\*
- check your laser pointer & remote control (power is **OK** in batteries?)





# Your Doctoral Exam: how do I defend?

## ■ the view of the **attendees** during your public presentation

- tell your friends & colleagues to be **on time**, as our elevator to **level 9** has its very own schedule...



# Your Doctoral Exam: first you give a presentation

## ■ The **key take–aways** of your works in a **20 min** presentation\*

- structure your talk: be specific, do not overburden, but not too shallow
- what are the **main achievements** of your *PhD* work?
- you do **not** need to cover all the details/sidelines of your *PhD* work
- a brief **introduction** to your topic & the goal of your work is most helpful
- finish with a **clear statement** during your conclusion

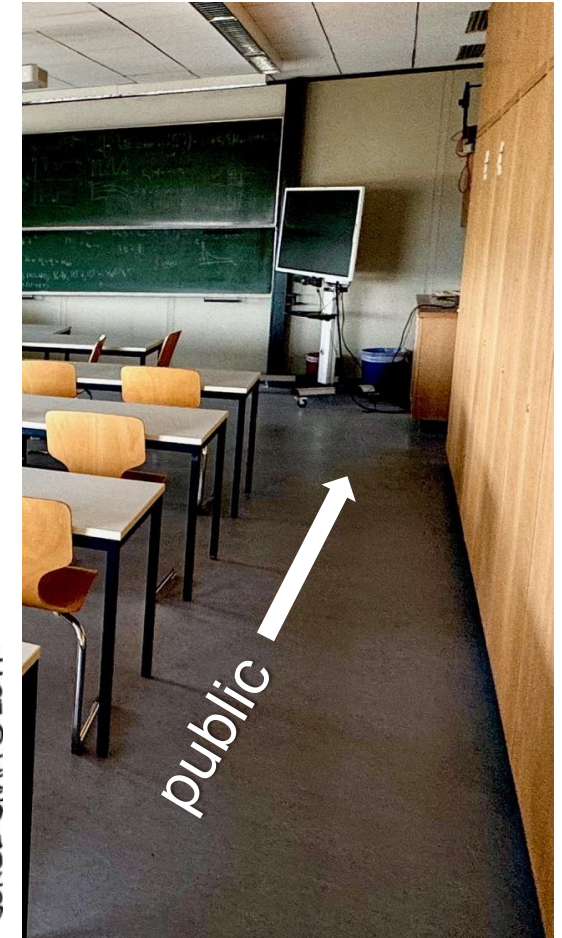
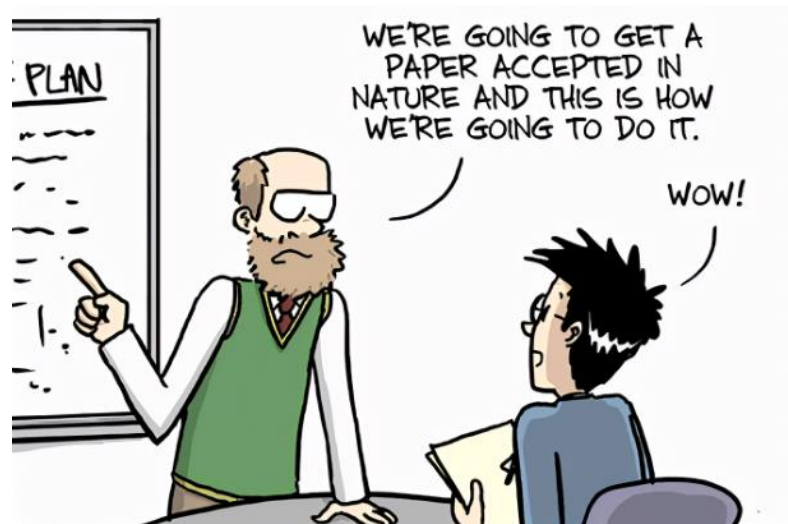




# from presentation on to the disputation

## ■ Before the disputation everyone (incl. you) is kindly asked to leave

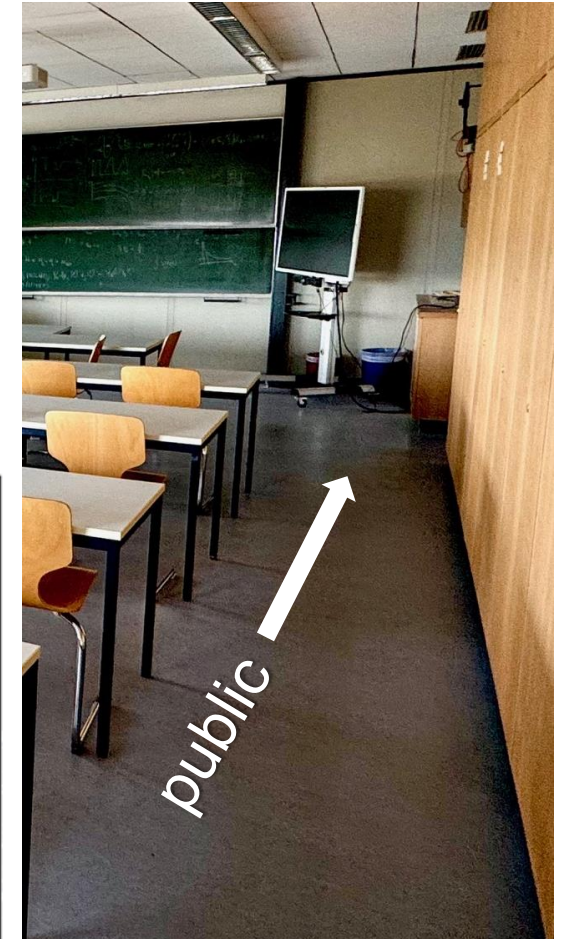
- **each reviewer** then details your achievements & gives a short summary of his/her written dissertation report
- the summary includes statements on **publications** (so make sure these are known/available)
- your supervisors will detail **your contributions to teaching**
- the level of detail really **depends on...** many parameters



# from presentation on to the disputation

## ■ Before the disputation everyone (incl. you) is **kindly asked to leave**

- **each reviewer** then details your achievements & gives a short summary of his/her written dissertation report
- the amount of time for detailing is **not correlated** to the amount of time you wait outside
- **grading of written dissertation:**
  - very good (1.0)
  - very good-good (1.5)
  - good (2.0)
- **average** of the two gradings above is taken (& contributes to **50% of your overall grade**)

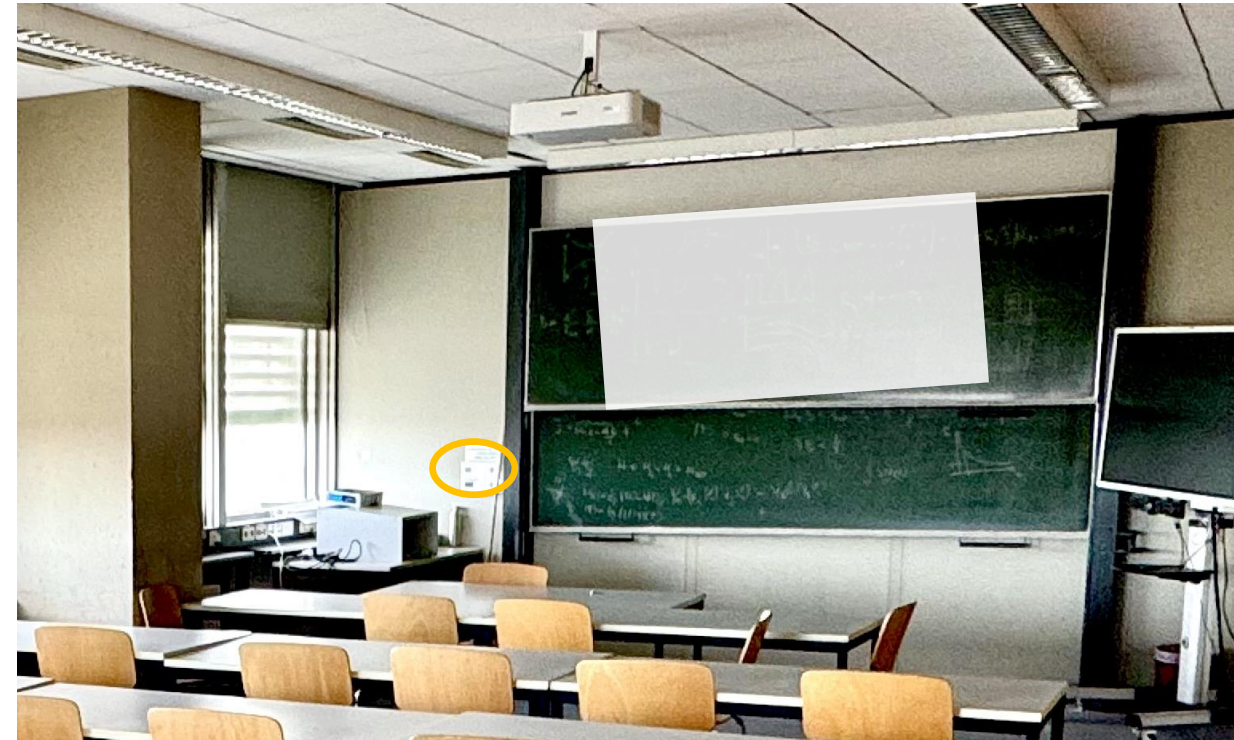




# from presentation on to the disputation

## ■ from the presentation to the **disputation**: you will use the blackboard

- usually you do not use the beamer for the disputation, get **familiar with the blackboard technique** (we have no cleaning service between the slots)
- use toggle (or black transparency) to **stop illumination via beamer**, but: at some point an examiner may ask you to go back to slide...
- for better views on the blackboard, please turn on the **blackboard illumination switch** at the left side



# the disputation

## ■ the **disputation**: you defend your *PhD* work

- **each member** of the committee will be allocated a time slot of **~10 min** for **questions related to your *PhD* work**
- the head of the committee is the **timekeeper** & will call on the next person after **~10 min**.
- examiner *A* & *B* will be **complementary** in their questions (**theoretical foundations & experimental aspects**)
- you are allowed to be **prepared for possible questions**



- ➊ your supervisor
- ➋ your co-supervisor
- ➌ selected examiner *A*
- ➍ selected examiner *B*
- ➎ head of committee (dean, vice-dean,...)

# the disputation

■ the **disputation**: you defend your *PhD* work best in a small round

- the advantage you may gain will be of **rather rather value**:
  - each *PhD* defense is **truly unique**, as the committee (even over one semester) will **fluctuate** a lot
  - the **chair** will be selected from a **broader ensemble of persons** (dean, vice-dean, dean of studies, experienced colleagues due to the strong demand
  - you cannot judge based on a **limited sampling** of other *PhD* defenses, and certainly you do not want to attend too many

# the disputation

■ the **disputation**: you defend your *PhD* work best in a small round

- the advantage you may gain will be of **rather rather value**:
  - each *PhD* defense is **truly unique**, and you may be tempted to compare your own defense as being much more challengin / much less challenging than the ones you have attended
  - our faculty will **significantly grow** over the next two years (see my reports in the FR): we expect about **10 new persons (hires)** to join as W1(TT) or W3 professor
  - you should spend this time to train on the defense, i.e. what are **the most likely questions...**

# the disputation

- the **disputation**: you defend your *PhD* work best in a small round

what is the impact of  
your PhD work for  
**future studies / our  
current understanding ?**

what about  
**other groups?**



what is the **theoretical  
basis of your work?**

what about  
**systematic effects?**