

Doctoral Orientation Days 1.9.2025

Meet the Doctoral Programme in Science

14.30 Dean Jouko Lampinen

14.45 Doctoral researcher Saija Simola

15.00 Planning Officer Suvipilvi Kotipelto, Coordinators Aini Simola and
Antti Susiluoto

Questions during the programme are welcomed!

Saija Simola,
Doctoral Researcher

Student
representative in
Doctoral Programme
Committee

saija.simola@aalto.fi



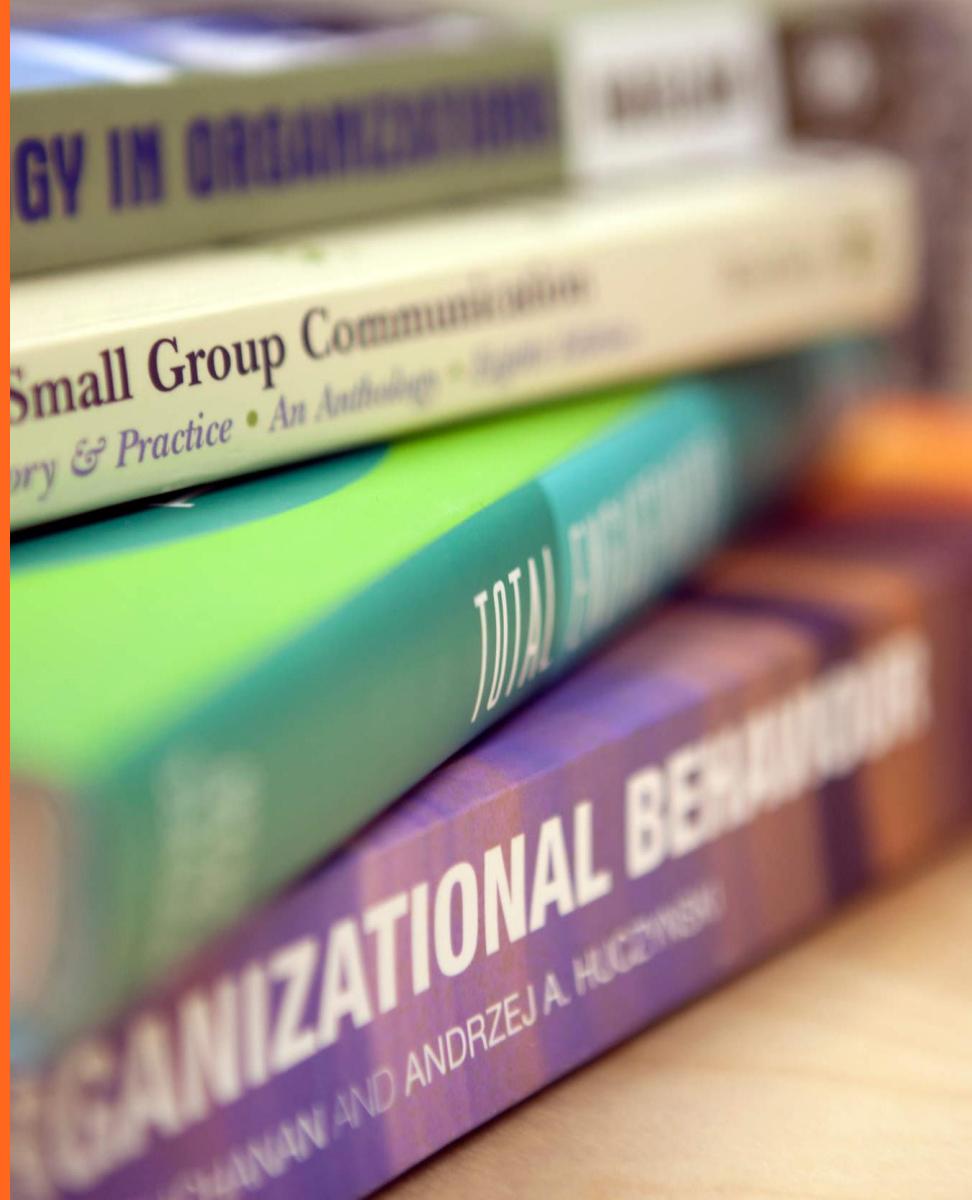
Doctoral studies in the Doctoral Programme in Science

Suvipilvi Kotipelto

1.12.2025

A"

Aalto University
School of Science



Doctoral Programme Committee (DPC)



Kalle Kytölä
*Mathematics and
Systems Analysis*



Adam Foster (chair)
Applied Physics



Jan Holmström (vice)
*Industrial Engineering
and Management*



Miika Remahl
Study coordinator



Iiro Jääskeläinen
*Neuroscience and
Biomedical Engineering*



Saija Simola
*Doctoral students
(2025)*



Aini Simola
Study coordinator



Jussi Rintanen
Computer Science



Suvipilvi Kotipelto
Planning officer

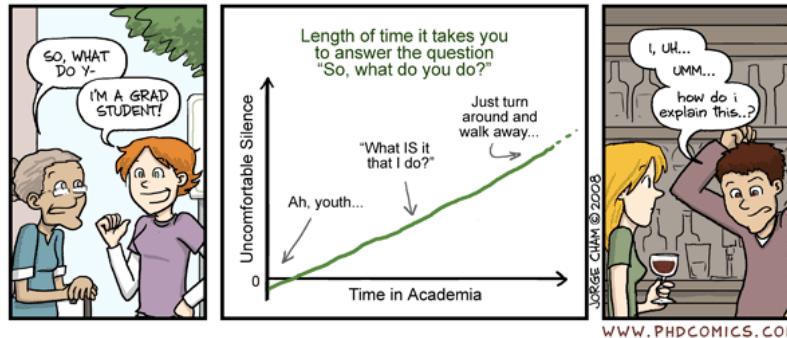
Professors

Students

Coordination

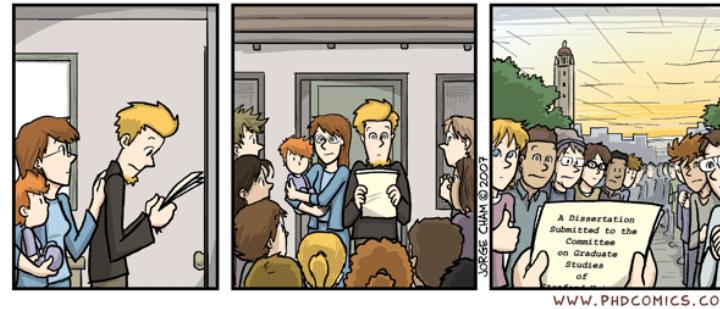
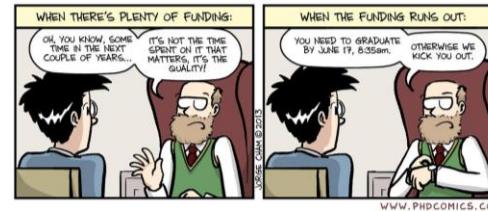
DPC - what we do

- Give you information and support.
- Get you through the formal processes as efficiently as possible.
- Collect feedback and react to it.
 - Maintain the courses and procedures that you need.
 - Reinforce the interactions that you want.
 - Develop resources for the careers you will have.



DPC – what we check

- **The initial education, research and funding plan. Career plan.**
 - The details are yours, but the components must be there.
- **The supervision plan**
 - Ensure the supervision team is strong and appropriate.
 - Check that regular meetings are planned and sensible communication with the team has been organized.
- **The thesis**
 - Content and contribution.
- **The examination team**
 - Suitable expertise and no bias.
 - Fair reports and requests for changes.



Doctoral Programme in Science

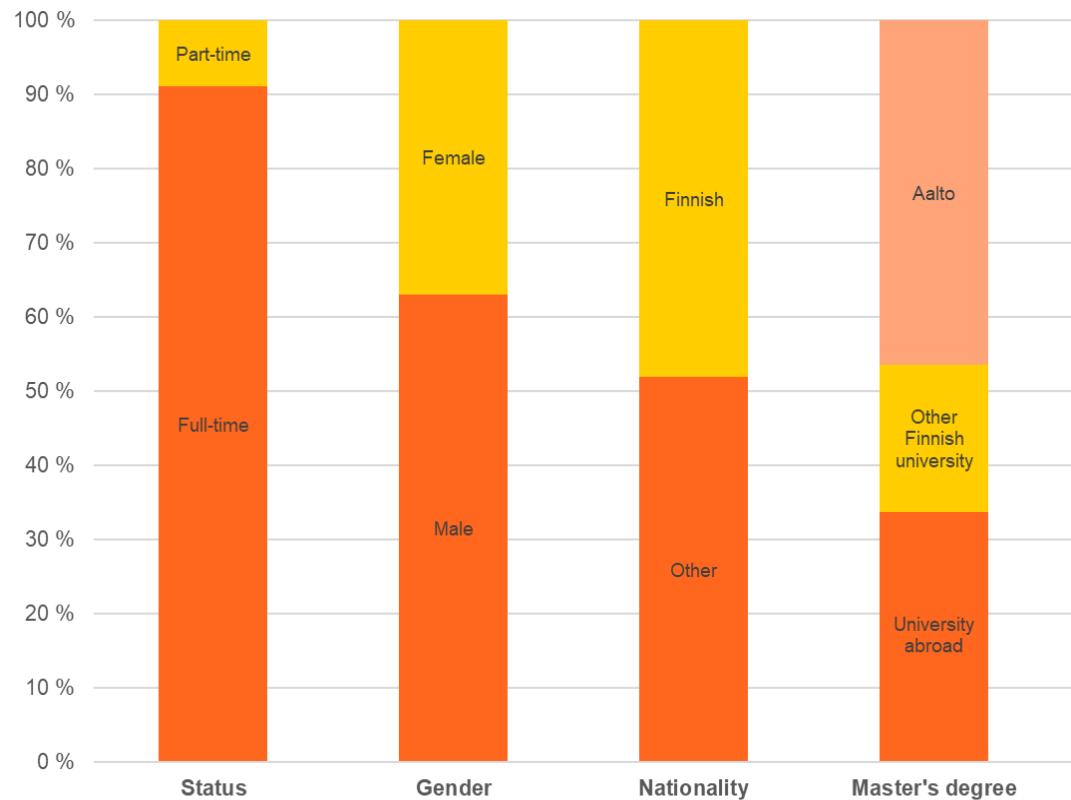
- **The largest of the doctoral programmes at Aalto**
 - 90-100 new doctoral students / year (2024: 137)
 - Around 500 full-time, attending doctoral students

The research work is done in the five departments of the School of Science (6 research fields):

1. Applied Physics (PHYS)
 - Engineering Physics
2. Computer Science (CS)
3. Neuroscience and Biomedical Engineering (NBE)
4. Mathematics and Systems Analysis (MS)
 - Mathematics and Statistics & Systems and Operations Research
5. Industrial Engineering and Management (DIEM)

2024:
137 new
doctoral
students
at SCI

Doctoral Programme in Science: 137 new doctoral students in 2024



Who are we? The Staff of the Student Services



Miika Remahl
Study Coordinator
Admissions, study plans,
credit transfer, individual study
attainments, incentive
scholarships



Aini Simola
Study Coordinator
Appointing opponent, doctoral
thesis and graduation;
readmissions



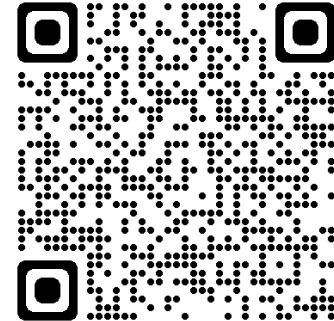
Suvipilvi Kotipelto
Planning Officer
Pre-examination, general matters,
international matters, (licentiate
thesis and graduation)

Where to find information? 1

- **Services of the Doctoral Programme in Science**
 - <https://www.aalto.fi/en/programme-pages-for-students/aalto-doctoral-programme-in-science/contact-information>
 - You can contact any one of us or doctoral-sci-elec@aalto.fi
 - Moderated address and quick answers!
 - suvipilvi.kotipelto@aalto.fi, 050 466 2964
 - aini.simola@aalto.fi, 050 434 3267
 - miika.remahl@aalto.fi, 050 421 0898
- **Mailing lists and newsletters**
 - Mailing lists: SCI doctoral students / Aalto doctoral students
 - Always read doctoral newsletters! (and other newsletters)
- **Use always your Aalto email inside Aalto!**

Where to find information? 2

- **Aalto.fi**
 - Aalto Doctoral Education Hub:
 - <https://www.aalto.fi/en/doctoral-education>
 - Doctoral Programme in Science:
 - <https://www.aalto.fi/en/programme-pages-for-students/aalto-doctoral-programme-in-science>
 - SCI Doctoral Programme Committee:
 - <https://www.aalto.fi/en/doctoral-education/doctoral-programme-committee-school-of-science>
 - SCI research fields and supervising professors:
 - <https://www.aalto.fi/en/programmes/aalto-doctoral-programme-in-science/research-fields>
- **Sisu**
 - <https://sis-aalto.funidata.fi/student/frontpage>
 - Study plan, course information, enrolment to courses, graduation etc.

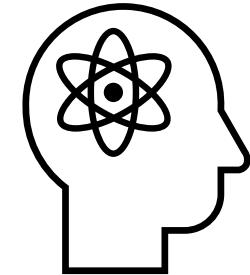


Where to find information? 3

- ***MyCourses: Course materials***
<https://mycourses.aalto.fi/>
- ***Oili: Enrolment EVERY YEAR until graduation***
<https://oili.csc.fi>

What do we do?

Doctoral Programme vs. Departments



Doctoral Programme in Science

- Right to pursue doctoral degree
- Registering individual study attainments
- Confirming your study plan
- Confirming new supervising professor / thesis advisor
- Pre-examination and graduation
- Incentive scholarships
- Curriculum, admission criteria, guidelines, coordination...

Departments

- Employment contracts
- Research work
- Hosting agreements
- Supervision and guidance of doctoral candidates
- Courses in the research field

Aalto University

- Pedagogical training
- Research and Innovation Services
- Joint lectures and courses

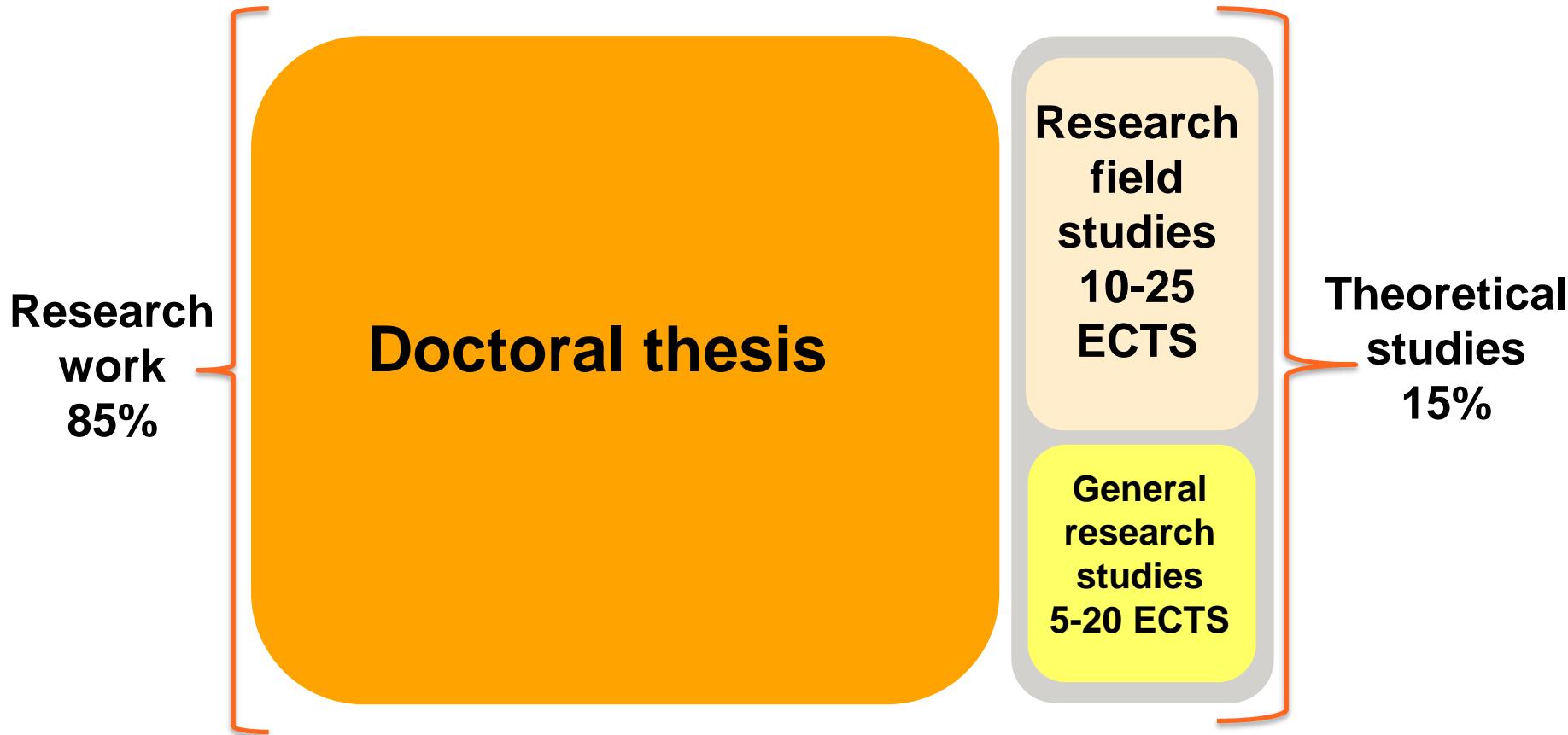
Doctoral Studies & Doctoral Thesis

A"

Aalto University
School of Science



Structure of the doctoral degree



Theoretical studies 30 ECTS: Research field studies 10-25 ECTS

Support the research work

Courses arranged by the departments

- All advanced studies (Master level, e.g. CS-E4000) courses allowed
- Often the letter "D" after the course name (not required at SCI)
- Doctoral Studies (e.g. TU-L2001)
- Compulsory courses for doctoral students in CS, DIEM and PHYS

Individual study attainments, see the curriculum

- Literature and other self study (no limit)
- Summer or winter schools (no limit)
- Publishing research (max. 6 ECTS)
- Reviewing a scientific manuscript (max 2 ECTS)

Theoretical studies 30 ECTS: General research studies 5-20 ECTS

- **Research methods**
 - Compulsory course for all SCI students:
LC-L1000 Research Ethics for Doctoral Students
 - Compulsory courses for doctoral students in DIEM
- **Research ethics, theory, history and philosophy of science**
- **Pedagogical training**
- **Scientific writing and communication**
 - Courses offered by the Language Centre
 - Finnish/Swedish courses (minimum level A1) from Aalto University Language Centre for doctoral students whose native language is not Finnish or Swedish.)
- **Individual study attainments, see the curriculum, e.g.**
 - Academic advising, teaching, presenting research in conferences, university activities

Individual study attainments

- Supervising professor decides the amount of credits according the curriculum 2024-2026

Curriculum 2024-2026

Completing the theoretical studies 30 ECTS (Sisu credit plan)

- **Before starting the pre-examination process, you need to get your final study (credit) plan (30 ECTS) approved by your supervising professor.**
- **Apply for approval in Sisu for “Research field studies” and “General research studies” only when you have passed all the courses. Do not apply this in the beginning of your studies since it is not needed at this stage.**
 - If you have done that, please withdraw your Sisu approval application and apply later again.

Incentive scholarships for doctoral candidates at Aalto University

Valid 1.1.2026-31.12.2029:

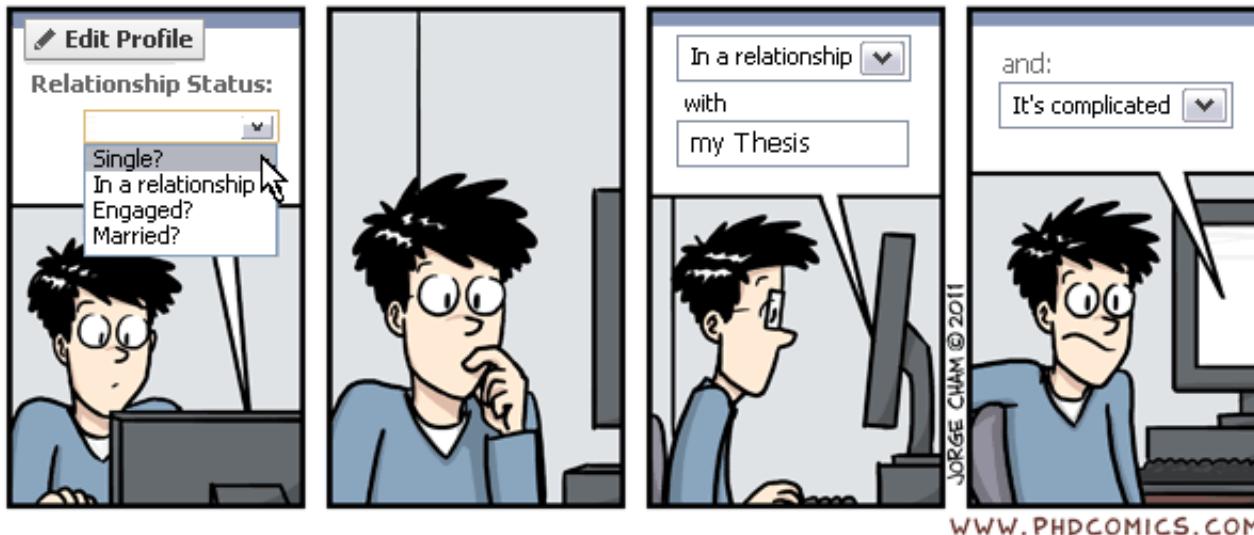
- **500 euro** for the **first two** peer-reviewed articles included in the doctoral doctoral thesis (only two 500 euro scholarships / student)
- **2,000 euro** scholarship for completing the doctoral degree,
 - provided the following conditions earned within **four years of being admitted** to the doctoral programme. Studies have to be completed in accordance with the approved study plan and the DPC has appointed the preliminary examiners for the thesis manuscript **OR**
 - provided the degree was earned by the end of the calendar year the doctoral candidate turns **30 years**.
- The applications have to be submitted **within six months of the fulfillment** of the scholarship **criteria**
- Criteria met during the scholarship period. [Detailed info](#)

Licentiate thesis and licentiate degree

- Not mandatory, but doctoral students have a right to complete the licentiate degree
- 2 years of studies
- Same theoretical studies (30 ECTS) as in doctoral degree
- Licentiate thesis
- You can continue until doctoral degree after completing the licentiate degree
- Instructions in detail

Doctoral Thesis





Requirements of doctoral thesis at Aalto University

- A doctoral thesis must follow **good scientific practices** and **ethically sustainable principles**
- A doctoral thesis must contain **new scientific findings** in its area of research
- Research methods and new research findings are to be presented clearly and they need to **withstand examination**
- The **candidate's own contribution** to the research has to be sufficient and clearly stated
- See in detail: [Doctoral thesis at Aalto University](#) &
- [Supervision of doctoral thesis in detail](#)

Forms of doctoral thesis

1. Article thesis

- Consists of a **summary** and **publications or manuscripts submitted for publication**
- Number of publications are dependent on:
 - the extent
 - scientific significance
 - quality of the publications
 - the candidate's independent contribution

2. Research paper-based thesis (used normally only at DIEM)

- Consists of a **summary** and **scientific essays**

3. Monograph

- An independent publication

Supervision and guidance



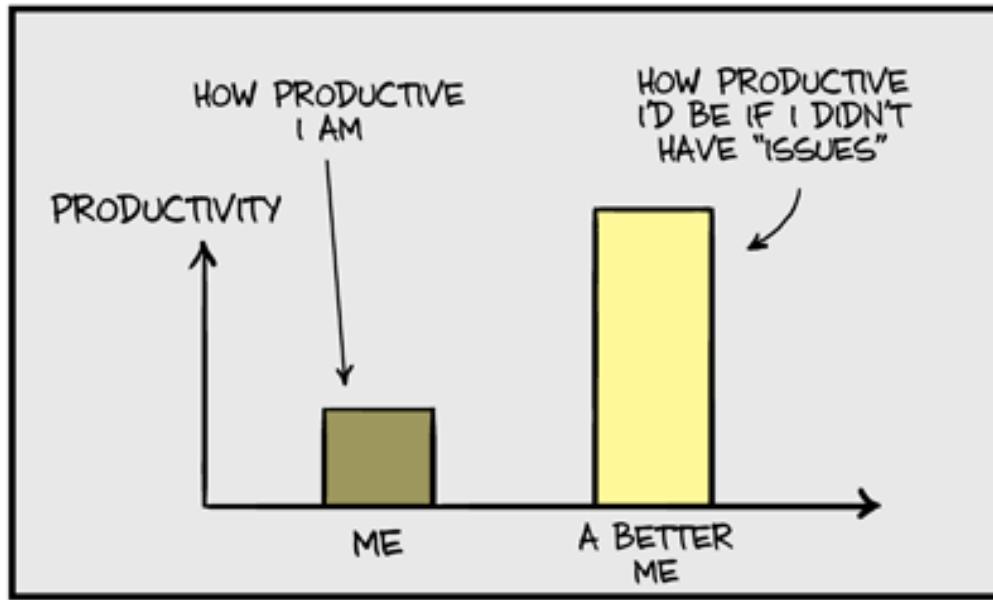
Rights and responsibilities of a doctoral student

- **Rights of a doctoral student:**
 - to **receive guidance** on a regular basis
 - to **study** in accordance with the personal study plan and research plan
- **Responsibilities of a doctoral student:**
 - to **enrol** as attending or non-attending **every academic year** until you graduate (Take care of this every year!)
 - to update doctoral personal study plan (DPSP) when necessary
 - to **report** on your progress as agreed on in the supervision plan
 - to familiarize yourself with the **ethical principles of scientific research** and to act in compliance with the guidelines on good scientific practice (TENK).
 - to carry out research **independently** and in self-directed manner
 - to **actively publish** results in the publication forums of the field

Responsibilities of the supervising professor

- to provide **guidance** in the execution of the research work
- to support the implementation of the **financing plan**
- to **guide in publication writing** and to encourage the doctoral student to actively publish the research results
- to **follow up** the progress of the doctoral student on a regular basis
- to ensure that the doctoral student is aware of the **good scientific practice** and of the **requirements of the doctoral thesis**
- to ensure that full-time doctoral student **are not burdened excessively** with duties other than doctoral research work
- to assist the doctoral student in **career planning**

Remember the importance of the (updated) supervision plan!



What if things go wrong?

- **Don't be alone, ask for help and guidance when you need it!**
- **If there are any problems during your studies, talk with:**
 - your supervising professor and/or thesis advisor
 - your colleagues for peer support
 - staff of the doctoral programme
 - study psychologists or occupational health care
- **If there are any problems in guidance, talk first with:**
 - your supervising professor and/or thesis advisor
- **If the problems with the guidance continue, talk with:**
 - Head of the Department
 - HR of your department (if you are an employee)
 - Staff of the doctoral programme or director of the doctoral programme or the ombudsperson (Christian Flindt, Juho Rousu or any other)

Tips for your doctoral studies

- **Be goal-oriented and committed**
 - Learn to prioritize
 - Take responsibility
- **Always take care of your wellbeing**
- **Network, within Aalto and outside Aalto**
- **Learn communication skills**
 - Learn to present your results and publish them
 - Use the possibilities for training (for the future)

In case of an emergency

- **Aalto.fi front page (at the bottom):**
 - <https://www.aalto.fi/en/services/security-procedures-for-emergencies-and-disruptions>
- **Emergency call in emergency situations (eg. fire, accident etc.): 112**
- **AaltoAPUA 050 46 46 462**

Welcome to the Doctoral Programme in Science!

Please don't hesitate to contact us in
any matter related to your doctoral
studies – we are here for you:
doctoral-sci-elec@aalto.fi!