Department of Mechanical and Process Engineering (D-MAVT)

Doctoral Event 2019
Agenda for Today

- **Welcome** .......................................................... Prof. D. M. Kochmann  
  D-MAVT Deputy Head, Delegate of Doctoral Affairs
- **Doctoral studies at ETH** ...................................... Prof. A. Togni  
  ETH Vice Rector for Doctoral Studies
- **Introduction to D-MAVT & Administrative Matters**  
  Prof. D. M. Kochmann & Dr. M. Velonà  
  D-MAVT Studies Coordinator
- **Employment rules** .............................................. U. Lott  
  Human Resources
- **Offer of LET for doctoral students** ...................... E. Tomforde  
  Educational Development and Technology (LET)
- **Safety, Security, Health, Environment** ............... I. Raabe  
  Safety, Security, Health and Environment (SSHE)
- **Doctoral student associations** .............................. F. Veenstra, Representative of AVETH  
  L. Bosetti, President, AV-MAVT
- **Apéro** ................................................................. Join us outside!
Doctoral Studies at ETH
Some General Considerations

Antonio Togni, D-CHAB, Vice-Rector for Doctoral Studies, ETH
@D-MAVT Doctoral Event, 12 November 2019
The Doctorate at ETH Zurich – Facts and Figures

- ca. 4300 doctoral students (21% of all students) carry a significant share of the overall research activities
- 31% female candidates / 75% non-Swiss citizens
- Average duration of a doctorate: ca. 4.3 years
- Success rate: 86% (2000 - 2018) – Great variability depending on discipline – High on an international comparison

% Dropouts from PhD at ETH, 2000 - 2017

Source: A. Togni, Das Doktorat an der ETH Zürich, ETH-internal report, 16 April 2018
Interaction Chart

**Professor / Supervisor**
- teaching duties
- examination committee
- examination date

**Doctoral Student**
- recruitment
- supervision
- research plan
- progress reports

**HR**
- employment
- salary

**Department / Institute / Doctorate Committee**
- agreement on qualifying exams
- departmental detailed regulations / modalities

**Doctoral Administration Office / Vice-Rector / Rector**
- application / enrollment
- qualifying exams
- provisional admission
- full candidacy
- official thesis submission
- assistance / arbitration in case of conflicts

Why do YOU want a doctorate?
Reasons, Motivation, Aptitude

- To work on a project of high interest at the frontiers of science
- To become a creative researcher
- To acquire scholarly independence
- To go for an academic career
- etc.

To remain a student (with a salary) a little longer…
To obtain a prestigious title needed for…
To secure better career chances

recommended reading
The Supervisor - Student Relationship – Some Essential Aspects

- Recruiting – Matching scientific interests with qualifications
- Communication and dialogue – Alignment of expectations
- Guidance, Availability, and Feedback culture
- Reciprocal trust
- Promoting Critical thinking
- Allowing independence and emancipation

General literature:
Stan Taylor, Margaret Kiley, Robin Humphrey, A Handbook for Doctoral Supervisors, Routledge, 2nd Ed., 2018
Susan Carter, Deborah Laurs, Eds., Developing Generic Support for Doctoral Students, Routledge, 2014
Sandra C. Greer, Elements of Ethics for Physical Scientists, The MIT Press, 2017
Supervision styles and possible typology of doctoral students

- Supervision style and typology are interdependent
- Great variability depending on discipline, type of project, cultural background

For similar conceptual considerations (contingency framework), see:


Development of the doctorate at ETH
Recent and future activities headed by the Central Doctoral Administration

Symposium on Doctoral Supervision, 24-25 Jan. 2019
https://www.video.ethz.ch/events/2019/supervision

Introductory Programme
https://ethz.ch/students/en/doctorate/introductory-programme.html

- New general orientation event
- Workshops “Shape your doctorate”
  - Planned topics: Alignment of expectations, scientific writing, research plan as part of “making science”, and more

Ongoing revision process

- Ordinance on Doctoral Studies ETH Zurich
- Rector’s Implementation Provisions for the Ordinance on Doctoral Studies
- Main topics: Admission colloquium, Qualifying exams, Research plan, Progress reports, Co-examiners, Defense
- A broad consultation has recently taken place
Thank you for your attention!
ETH Zürich in Brief

Early ETH:
- Founded in 1855 with six departments (including D-MAVT)
- Driving force of industrialization in Switzerland

ETH Zürich today:
- Leading international university for science and technology
- Top university in continental Europe
- ca. 20’000 students
- ca. 530 professors in 16 departments

Reasons for success:
- Providing rigorous technical education
- Ground-breaking fundamental research
- Putting new findings into practice
If you believe in rankings…

THE World University Ranking 2020
from Times Higher Education
- No. 13 in the world (overall ranking)
- No. 8 in Engineering & Technology

QS World University Ranking 2019
from Quacquarelli Symonds Ltd.
- No. 6 in the world (overall ranking)
- No. 3 in Engineering & Technology
- No. 13 in Mechanical Engineering
- No. 5 in Chemical Engineering

Academic Ranking of the World Universities 2019
from Shanghai Jiao Tong University
- No. 19 in the world (overall ranking)
- No. 46 in Mechanical Engineering
- No. 3 in Automation & Control
- No. 19 in Biomedical Engineering
- No. 17 in Chemical Engineering
D-MAVT: Your Department

D-MAVT:

- Departement MAschinenbau und VVeрафahrenstechnik
- Founded in 1855 – largest department at ETH

Figures of 2018:

- 1'619 Bachelor’s students
- 1’058 Master’s students
- 476 doctoral students
- 40 professors
- 13 patents
- 3 spin-offs

Steam engine in the Machine Laboratory (ca. 1900)

ETH Zurich (ca. 1900)
Core Research Areas

- Energy Flows Processes
- Revolutionizing Mobility
- Providing Sustainable Energy
- Ensuring Healthy Lives
- Reinventing Manufacturing
- Health & Medical Engineering
- Mechanics Materials
- Robotics Systems Control
- Design Manufacturing

DMAVT

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Research Groups/Professorial Faculty

+ 5 new professors will start in the next six months
D-MAVT: Department Executive Board

Prof. Bradley Nelson
Head of Department

Prof. Dennis Kochmann
Deputy Head of Department
(Doctoral Delegate)

Prof. Dirk Mohr
Director of Studies
D-MAVT Doctoral Administration
(Or: who you really should know…)

Lorena Luzi
LEE K 208, Leonhardstrasse 21
doktoratsadministration@mavt.ethz.ch
Tel. +41 44 633 32 83

Angelica Schmaus
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Dr. Maddalena Velonà
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doktoratsadministration@mavt.ethz.ch
Tel. +41 44 632 21 99
What are “Doctoral Studies”?

- Drive your individual research project
- Try new techniques & approaches, solutions, combinations, schools of thought
- Disseminate your results
- Engage in training students
- Ask for feedback, seek advice
- Make a lasting impact in your discipline (and as a citizen of ETH)

(All pictures are results of googling “ETH Doctoral Study”.)
Legal Basis for Doctoral Studies

ETH
- Ordinance on Doctoral Studies at ETH Zürich
- Rector’s Implementation Provisions
  → www.ethz.ch/students/en/doctorate.html

D-MAVT
- D-MAVT Complementary Regulations on Doctoral Affairs
- Detailed provisions for individual doctoral studies
  → www.mavt.ethz.ch/doctoral-studies.html
Timeline for the Doctorate in D-MAVT

- **Recruitment**
- **Application to doctoral studies**
- **Provisional admission**
- **Acqurement of 12 credits**
- **Pass qualifying exams**
- **Research Plan**
- **Annual Report**
- **Advancement to full candidacy**
- **Appointment of 1st co-examiner**
- **Definition of examination committee and date**
- **Publication and handing in of deposit copies**
- **Doctoral exam**
- **Doctoral graduation and use of the doctoral title**
- **Acquirement of 12 credits**
- **Annual Report**

**Timeline**

- **Start**
- **Year 1**
- **Year 2**
- **Year 3**
- **Year 4**
- **Year 5**
Research Plan

- To be submitted within 12 months of registration
- Full admission to doctoral studies
- Submission with form “Approval of the Research Plan”
- Structure of the research plan (printed one-sided, not stapled):
  - cover page with date and signature of the student and supervisor
  - abstract, max. ½ page
  - scope of the project, research tasks
  - relevance and relation to current work carried out at the institute/department
  - literature review
  - capacity for additional research
  - time schedule
  - planned publications
  - teaching tasks
  - additional duties of the doctoral student

→ www.mavt.ethz.ch/doctoral-studies/research-plan.html

The department checks the submission deadline.
Art. 15 of the Ordinance states “Doctoral students submit a written annual report on the progress of their work to the supervisor, either at the latter’s request or of their own accord. The supervisor provides written feedback.”

**Purpose**

- raise awareness of important rules and recourses at ETH/D-MAVT
- formalize funding commitment by the supervisor (including expected date of doctoral thesis submission)
- avoid miscommunication between supervisor and student
- provide the department with annual feedback on status (progress, changes/improvements, critical issues)

→ [www.mavt.ethz.ch/doctoral-studies/annual-report.html](http://www.mavt.ethz.ch/doctoral-studies/annual-report.html)

**Deadline for submission**

- first with the research plan (after the first year), then yearly (reminders and supervision by Doctoral Administration)
Coursework and Credit Points

- Doctoral candidates must earn **at least 12 credit points** during their doctoral studies.
- 1 credit point corresponds to a workload of 25-30 hours.
- 1/3 of the credit points must be acquired outside the field of research.
- Doctoral students need to enroll for courses and register for exams.
- myStudies: Transcript of records = credit points obtained by exams.
- myStudies: Studies overview = number of credit points according to “hours”, if course attendance confirmation is “received”.
- Form “Course participation certificate for doctoral students”: for external credits (not listed in myStudies) upon approval by supervisor.
- **Qualifying examinations** do not count as credits for doctoral studies

→ [www.mavt.ethz.ch/doctoral-studies/credit-points.html](http://www.mavt.ethz.ch/doctoral-studies/credit-points.html)
New Courses for Doctoral Students

HS2019:

151-9901-00L Scientific Writing for Publication in Engineering (2 credits)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Autumn Semester 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td>S. Milligan</td>
</tr>
<tr>
<td>Periodicity</td>
<td>yearly recurring</td>
</tr>
<tr>
<td>Language of instruction</td>
<td>English</td>
</tr>
<tr>
<td>Comment</td>
<td>Only for D-MAVT doctoral students. Number of participants limited to 15 per group.</td>
</tr>
</tbody>
</table>

Abstract
Scientific Writing for Publication in Engineering is a short course (5 half-day workshops) designed to help junior researchers develop the skills needed to write their first research articles in English.

Objective
- The course deals with topics such as:
  - Fitting texts to target readerships and journals
  - Managing the writing process efficiently
  - Structuring each section of the text effectively
  - Producing fluent and reader-focused sentences and paragraphs
  - Editing the text before submission
  - Revising in response to reviewers’ comments.

Content
Participants produce a number of short texts as homework assignments and receive detailed individual feedback on these during the course. The course takes place at times and locations chosen to suit MAVT doctoral researchers. Content and materials deal specifically with the demands of writing in engineering research fields. Wherever feasible, elements of participants’ future research articles are developed as assignments within the course, so it is particularly useful for those who have their data and are about to begin the writing process.
FS2020:

Workshop on Intellectual Property Rights, 1 credit, C. Soltmann, 16-17 January 2020, max 25 participants, registration by Dec. 15, 2019

- Chances are high that your research at ETH Zurich will lead to technical solutions with commercial potential.
- This workshop teaches you to assess whether your development can be considered an invention and filed as a patent.

organized by the European Patent Academy and ETH transfer
External Thesis

A thesis outside the ETH domain is considered an external thesis.

D-MAVT requires in addition to the documents of ETH:

- declaration of the company that the doctoral student is working for the doctoral thesis (definition of the time available for the research and courses) and declaration of the duties
- reasons why the doctoral thesis should be pursued outside ETH and in the company
- name and function of an experienced and qualified person at the external institution who supervises the student at the external institution
- plan of activities at ETH Zürich (credits, discussions, meeting with supervisor, milestones)
- name of an independent professor, not involved in the research, acting as co-examiner


The approval of an external thesis is the responsibility of D-MAVT’s Department Conference (DK).
Cumulative Thesis

- Standard doctoral thesis: monograph (including part of the papers published, with proper citations)
- *Cumulative thesis* includes articles as printed

D-MAVT requirements for a cumulative thesis:

- **Several** publications
- Publications **published or accepted in a peer reviewed journal** (ISI journals or comparable)
- The doctoral candidate must be the **first author of all publications**
- The thesis includes an extended **introduction** chapter with
  - the overriding research question
  - the methodology used
  - the relevance and the contribution of the thesis to specific subjects
- The thesis includes an extended **conclusion** chapter which integrates the results of the different publications and includes suggestions for future research, plus providing evidence for a coherent research framework of the thesis
Organization of the Doctoral Examination

- Examination must take place no later than **six years after matriculation**.
- **Co-examiners** must have been approved by PK/DK and Doctoral Committee.
- **Doctoral thesis** has to be provided to co-examiners **at least 6 weeks before examination**.
- Examination date proposed by supervisor and organised by D-MAVT.
- Registration for the doctoral exam with **confirmation of 12 credit points**.
- Minimum number of persons from the **examination committee** obliged to be physically present are the **chairperson**, the **examiner** and **at least one co-examiner**.
- **Video-conferencing** is possible
  → [www.mavt.ethz.ch/doctoral-studies/doctoral-examination.html](http://www.mavt.ethz.ch/doctoral-studies/doctoral-examination.html)
Co-Examiners

- Supervisor proposes co-examiner(s)
- At least one co-examiner is "university professor or equivalent" (i.e. UK Lecturer, Directeur de Recherche in France, but not FH Professor) with a doctor title.
- In the case of Titular Professors, at least one elected ETH Zürich professor, without hierarchical relationship with the Titular Professor must be a member of the examination committee, acting as co-examiner.
- For external theses: at least one co-examiner has not been involved in the research and has to be an independent professor, identified at the beginning of the external thesis.
Doctoral Examination and Final Steps

- D-MAVT examinations are **oral and public** in general.
  - Structure of the exam: presentation of 35-40 min + discussion (up to 90 min total)
    - Assessment of the oral examination
    - Assessment of doctoral thesis
  - Revision of the thesis: minor or major revision, according to the report of the committee
  - Retake of examination: one retake within six months possible
  - Approval of **awarding the degree** in D-MAVT Department Conference (DK)
  - De-matriculation after the doctoral graduation date by ETH Doctoral Administration
  - Use of the title “Doctor”: after the deposit of the official copies of the thesis (6 months time)

→ https://www.mavt.ethz.ch/doctoral-studies/doctoral-examination.html
Responsibilities of the Head of the Doctoral Committee:
- Contact person for doctoral students
- Member of conciliation committee
- Chairperson of doctoral examinations
- Responsible for the agenda item “Doctorate” in PK/DK

Responsibilities of the committee:
- Admission of doctoral students
- Approval of research plan
- Approval of co-examiners
- Deadline extensions
- Check on dossier for external theses
- Nominations for doctoral awards
ETH Policies

PLAGIARISM:

Plagiarism is understood as the complete or partial imitation of the work of another author without citing that work’s source and author. To avoid:

- *Citation Etiquette* - Plagiarism Information Sheet
- Declaration of Originality - Students attest to the originality of their work.

→ [www.ethz.ch/students/en/studies/performances/plagiarism.html](http://www.ethz.ch/students/en/studies/performances/plagiarism.html)

USE OF IT RESOURCES AT ETH ZURICH:

- You may only use legally licensed software for ETH purposes.
- Software used for projects are *property of labs* and must not be distributed.
- *Illegal use of software* is not tolerated and has severe consequences.

Please do take this very seriously!
The Respect Code of Conduct

- D-MAVT believes that our environment should be respectful and professional for all members including students, professors, research staff, administrative staff, and lecturers.

- We treat everyone with the same respect with which we expect to be treated by others.

- We behave and present ourselves professionally at all times. (You are now ambassadors of ETH and D-MAVT.)

- We all agree that our environment should be:
  - one of mutual respect
  - free from threats and violence
  - free from sexual harassment
  - free from discrimination
  - free from bullying and mobbing
In case of questions, problems, uncertainties consult:

- Your Supervisor
- AV@MAVT Helpdesk
- Other Students
- D-MAVT: Dr. Maddalena Velonà, LEE K 210, Tel. 044 632 21 99 doktoratsadministration@mavt.ethz.ch
- ETH Doctoral Administration: Alfredo Picariello, HG FO 22.1, Tel. 044 632 26 72 doktorat@ethz.ch
- Psychological Counseling Center of ETH and the University of Zurich → www.pbs.uzh.ch/index_en.html
- Student Advisory Service → www.ethz.ch/en/studies/prospective-masters-degree-students/student-advisory-service.html
- Student Association → www.nightline.ch/public/en/home/
A Word about Education at ETH Zürich

ETH is a “research university”: teaching at ETH is a combination of sound scientific foundations and practical applications in labs, projects, industry and research. ETH currently offers **23 Bachelor's and 44 Master's degree programs**.

MAVT offers:

- 1 Bachelor’s degree program in *Mechanical Engineering*
- 2 consecutive Masters:
  - Mechanical Engineering
  - Process Engineering
- 2 specialized Masters, with other ETH departments:
  - *Micro- and Nanosystems* (ITET, PHYS)
  - *Robotics, Systems and Control* (INFK, ITET, HEST)
- 1 Joint Master: *Nuclear Engineering* (with EPFL)
- Individual Doctoral studies
Study Programs at D-MAVT

Bachelor of Science ETH (3 years)
- Mechanical Engineering
- Biomedical Engineering
- Process Engineering
- Energy Science and Technology
- Micro and Nanosystems
- Integrated Building Systems
- Nuclear Engineering
- Robotics, Systems and Control

Doctor of Science ETH (3 - 4 years)

Job market

ca. 500 students

c. 1000 students

c. 1600 students

Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>ECTS</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
<th>Semester 4</th>
<th>Semester 5</th>
<th>Semester 6</th>
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<tbody>
<tr>
<td>Workshop Training</td>
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<td>Engineering Tools</td>
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<td>Laboratory Practice</td>
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<td>Focus</td>
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<td>Bachelor's Thesis</td>
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<td>Science in Perspective/Sp</td>
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<tr>
<td>Bachelor of Science ETH in Mechanical Engineering</td>
<td>180</td>
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</tbody>
</table>

1st Semester
- Core Courses
- Multidisciplinary Courses
- Science in Perspective
- Industrial Internship

2nd Semester
- Semester Project
- Master's Thesis

3rd Semester
- Bachelor of Science ETH

ECTS
- 36
- 6
- 2
- 8
- 8
- 30
- 90

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<table>
<thead>
<tr>
<th>Semester</th>
<th>Course type</th>
<th>Specifics</th>
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<tr>
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<td>Ex-cathedra, usually held by a professor or lecturer (graded exams)</td>
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<tr>
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<td>Solving exercises, usually in smaller groups, supervised by teaching assistants – <strong>doctoral students</strong> or senior undergraduate students (teaching assistants)</td>
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<td>1 to 4</td>
<td>Study Center</td>
<td>Answering questions and helping students solve problems – <strong>doctoral students</strong> or teaching assistants</td>
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<td>Exams</td>
<td>Various types (written, oral) and schedules (end-of-semester, session), correction mostly by <strong>doctoral students</strong></td>
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<td>4 to 5</td>
<td>Lab courses</td>
<td>Students attend 10 different labs (3–4 hours/lab) to learn about measuring methods, use of appropriate equipment and their practical use in research. Most labs offered by <strong>doctoral students</strong></td>
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<td>Third year BSc projects in groups, usually supervised by professors and <strong>doctoral students</strong></td>
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<td>6</td>
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<td>Work load of 420 hours (10 weeks full-time) completed in part- or full-time. Usually supervised by <strong>doctoral students</strong> or scientific staff.</td>
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<td>7- 8</td>
<td>Semester Project</td>
<td>Compulsory at the MSc level, <em>alongside courses</em>, 8 ECTS, 6 weeks full-time or part-time (finish with written report and presentation); day-to-day supervision by <strong>doctoral students</strong> or scientific staff.</td>
</tr>
<tr>
<td>9</td>
<td>Master’s Thesis</td>
<td>Final project, 30 ECTS, six months (28 weeks) full-time, advanced academic level. Official supervision and grading by professors, project finishes with a written report and presentation, day-to-day supervision by <strong>doctoral students</strong> or scientific staff.</td>
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### Your Interactions with BSc/MSc students

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#### Unique opportunities for
- gaining *mentoring and teaching experience*
- learning more about/expanding your own area of expertise
- **getting help** for your own research project
- contributing to the overall student experience
- work in *interdisciplinary and diverse teams*
Notice board

23.10.2019
Vacancy
University Assistant "Intelligent and Adaptive Manufacturing Systems", TU Wien, Austria

10.10.2019

Please note: On this site you find offers for external vacancies, internships, events etc. Publication on this page does not imply recognition for the study program. Some of the following content is only available in German.
You are about to…

- … join a **fantastic peer group** of doctoral students: *take full advantage, make friends, network, enjoy the diversity!*

- … interact with renowned **scientists** and the next generation of scientists: *take full advantage, ask questions, learn from them and challenge their thinking, network!*

- … get one of the last few chances in life to **learn** whatever you wish to study: *explore new fields, learn new concepts, think outside the box, dare to think the unthinkable!*

- … explore your **abilities** and push your **limits**: *in your courses, in your research, in your career development.*

- … become a **citizen** of ETH and D-MAVT with all its privileges and responsibilities: *use them carefully and thoughtfully!*

- … make a **unique contribution**: through your projects, through your inventions, through your personal interactions.
Information Human Resources

Ueli Lott
Human Resources D-MAVT

Personnel administration (Brigitte Jütz, brigitte.juetz@hr.ethz.ch)
- Residence and work permits for foreign employees
- Family allowance, holidays and vacations, social insurance, accident and sickness
- Work certificates and employer certificates for unemployment insurance fund

Office: TUR D23 (Turnerstrasse 1)

Personnel Manager (Ueli Lott, ueli.lott@hr.ethz.ch)
- Support in personnel matters within the ETH common personnel policy and in accordance with the framework of legal requirements
- Staff recruitment, development, retention, conflict management, consulting and separation
- Treats your issues confidentially

Office: LEE K206 (next to Student/Dept. Administration)
Development opportunities in science and time constraints

- **6 years max.** as Doctoral Student and Postdoc
- **6 years max.** as Senior Assistant or Senior Collaborator
- **9 years max.** as Senior Collaborator (if start at ETH Domain in this function)

(Defined in: Ordinance governing scientific employees of the Swiss Federal Institute of Technology Zurich)
Salary system

- **Fixed rates** for Doctoral students / Postdocs / Assistants
  - Set by Executive Board of ETH / ETH Council / Swiss Federal Council to be aligned with SNF
  - Automatic increase every year until 3rd-year-rate
  - Payment is in 12 monthly instalments

<table>
<thead>
<tr>
<th>Rate</th>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>47,040</td>
<td>48,540</td>
<td>50,040</td>
</tr>
<tr>
<td>2</td>
<td>52,855</td>
<td>55,230</td>
<td>57,610</td>
</tr>
<tr>
<td>3</td>
<td>58,670</td>
<td>61,920</td>
<td>65,180</td>
</tr>
<tr>
<td>4</td>
<td>64,485</td>
<td>68,610</td>
<td>72,750</td>
</tr>
<tr>
<td>5</td>
<td>70,300</td>
<td>75,300</td>
<td>80,320</td>
</tr>
</tbody>
</table>

- D-MAVT policy:
  - Each Institute or Professorship can select the fixed rate(s)
  - This must be applied consistently for all group members
  - Change of rates during PhD possible (due to additional tasks like teaching, lab support etc.)
## Legal and contract details

<table>
<thead>
<tr>
<th></th>
<th>PhD students / Postdoctoral students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Probation period</strong></td>
<td>Probation period of 3 month</td>
</tr>
<tr>
<td><strong>Contract duration</strong></td>
<td>Typically 1 year, renewable</td>
</tr>
<tr>
<td><strong>Employment level</strong></td>
<td>100% - Part-time employment is permitted in reasonable cases, in particular parenthood or employment with another employer, with a written request</td>
</tr>
</tbody>
</table>
| **Termination of contract** | On contract end  
Early termination of contract by mutual agreement only |
| **Specifics of PhD contracts** | Matriculation and work contract are two different legal situations. At least 70% of work time is for the PhD and 30% for not-project-related duties (teaching, lab work, support of Bachelor/Master Students etc.) |

*Defined in: Ordinance governing scientific employees of the Swiss Federal Institute of Technology Zurich*  
Duty to register absences in ETHIS

- Obligation for Scientific Personnel: Negative time management only (= Vacation and Absences due to illness/accident, maternity leave, unpaid leave, military etc.)

- If an employee is absent due to illness/accident, latest after five days ask them to send a doctor’s certificate to HR

- The time between Christmas and New Year must be compensated by extra hours or by taking holidays

- Vacations are for recreation purposes

- Vacation days have to be taken in the year the entitlement arises, at least once 2 weeks in a row

- Your supervisor is allowed to decide when vacations can be taken. Get the OK in advance!

- Please talk to your professor in an early stage if you see a problem regarding working times and/or taking vacation, especially at the end of your PhD

- A small left-over can be taken into the new year with the commitment when these days will be taken

- Supervisors are not allowed to reduce vacation days of their employees

Information

- **Website**
  - Human Resources: [www.hr.ethz.ch](http://www.hr.ethz.ch) or [www.ethz.ch/employment](http://www.ethz.ch/employment)
  - Regulations, Forms and Infos: [www.hr.ethz.ch/downloads](http://www.hr.ethz.ch/downloads)
  - Personal data: [www.hr.ethz.ch/private](http://www.hr.ethz.ch/private) or ETHIS > personally
  - Offers / benefits: [www.ethz.ch/employment](http://www.ethz.ch/employment) > All about employment
  - Jobs: [www.ethz.ch/jobs](http://www.ethz.ch/jobs)
  - Courses HR: [www.hr.ethz.ch/courses](http://www.hr.ethz.ch/courses) or [www.sprachzentrum.ch](http://www.sprachzentrum.ch)
  - Hello Kids!: [www.ethz.ch/hellokids](http://www.ethz.ch/hellokids)
Inhouse

  => for Students, Doctoral Students and Companies

- Psychological counselling: [https://www.pbs.uzh.ch/en.html](https://www.pbs.uzh.ch/en.html)
  => in collaboration with University of Zurich (UZH)
  => for Students and Doctoral Students

  => in collaboration with University of Zurich (UZH)
  => for Students and all employees
Educational Development and Technology (LET): Supporting Teaching and Learning at ETH

- Digital learning environments
  - Moodle: Learning Management System
  - EduApp: Interactive smartphone application

- Refresh Teaching: Lunch seminars: From faculty for faculty

- Teaching Evaluation: student surveys

- Guidance in teaching issues: beratung@let.ethz.ch
Faculty Development: Didactic course programmes / trainings

- **Student Teaching Assistants**: Courses for Student Teaching Assistants
- **Doctoral Teaching Assistants**: “Learning to Teach”
- **Senior teaching staff**: “Foundations of Teaching and Learning”
- **Professors**: “Teaching at ETH” Courses 1 & 2

**didactica programme** (cooperation with UZH)
ETH didactic course programme for doctoral teaching assistants (all departments)

Participants develop expertise as teachers by adapting suitable didactic concepts and techniques to their own course.

Course content:
• Basics of student learning processes
• Active student engagement
• Assessing students’ progress

Format:
• 3 days face-to-face training
• Online self-study materials
• Development of an own teaching project with peer review

Workload: 35 hours in total, thereof 10-12h online self-study

Registration: http://www.ethz.ch/faculty-development
Safety, Security, Health and Environment during Your PhD Studies

Ines Raabe
Safety, Security, Health and Environment (SSHE) Administrative Department

www.sicherheit.ethz.ch
Safety, Security Health & Environment (SSHE)

SSHE sections:

- Alarm Organization
- Occupational Medicine & Health Protection
- Training Lab Animal Science
- Occupational Environmental & Radiation Protection
- Fire & Explosion Protection
- Chemical Incident Response, Bio- & Occupational Safety
- Risk Management & Commissions
- Security
- SGU Training

Contact persons:
Training and Information

- SSHE website, department overview

- SSHE course calendar

- SSHE factsheets
## Disposal of Hazardous Waste

<table>
<thead>
<tr>
<th>Disposal station</th>
<th>Opening hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNB E 146</td>
<td>Each Wednesday: 9:00 - 11:00h</td>
</tr>
<tr>
<td>HCI D 276</td>
<td>Monday to Friday: 14:00 - 16:00h (semester)</td>
</tr>
<tr>
<td></td>
<td>Tuesday and Thursday: 14:00 - 16:00h (semester break)</td>
</tr>
<tr>
<td>HPL D 15.2</td>
<td>First Tuesday of the month: 9:00 - 11:00h</td>
</tr>
</tbody>
</table>

**Rules:**

- Use official containers (can be obtained at the disposal stations for free)
- Label waste containers
- Do not pour any chemicals down the sink!
Possible Emergencies

Unfall – was tun?
Accident – what to do

1. Alarmzentrale anrufen
   Call the Emergency Desk
888 ETH

2. Erste Hilfe leisten
   Administer first aid

3. Herzstillstand – reanimieren
   Cardiac arrest – resuscitate

4. AED (Defibrillator) anwenden
   Use the AED (defibrillator)
Alle Notfälle / All emergencies: 888
Extern / External: 044 342 11 88
ETH Zürich, SGU, www.ethz.ch/sgu

Feuer – was tun?
Fire – what to do

1. Alarmzentrale anrufen
   Call the Emergency Desk
888 ETH

2. Sich und andere retten
   Save yourself and others

3. Türen schliessen
   Close doors

4. Brand bekämpfen
   Fight the fire
Alle Notfälle / All emergencies: 888
Extern / External: 044 342 11 88
ETH Zürich, SGU, www.ethz.ch/sgu

Evakuation – was tun?
Evacuation – what to do

1. Andere informieren
   Spread the word

2. Gebäude verlassen
   Leave the building

3. Evakuationsleiter informieren
   Inform the evacuation leader

4. Zum Sammelplatz gehen
   Go to the assembly point
Alle Notfälle / All emergencies: 888
Extern / External: 044 342 11 88
ETH Zürich, SGU, www.ethz.ch/sgu
Emergency Number

ETH Emergency Desk (24/7):

- From internal phones: 888
- From external phones: 044 342 11 88
Assembly Point ETH Zentrum

Building MM
ASVZ – Sporthalle
How to Play it Safe at ETH Zurich - Booklet

- Order a hard copy via cabs@ethz.ch
Emergencies in the Lab - Poster

- Posters were distributed to all labs and workshops. They can be ordered via stickers@ethz.ch

- See also our order catalogue: https://www.ethz.ch/content/dam/ethz/associates/services/Service/sicherheit-gesundheit-umwelt/files/kennzeichnungsmaterial/en/Bestellkatalog_EN_20180305.pdf
Questions?
e-mail us: cabs@ethz.ch
AVETH

Orientation Event D-MAVT
Linda Wehner
We are the umbrella organization

About AVETH

Students

Technical & administrative staff

AVETH

ARCH
AAA

ERDW
VAME

MATH
VMM

MATL
SAM

MAVT
AV-MAVT

BAUG
ASB

HEST
HAS

MATL
SAM

USYS
VMUSYS

SEC
AsETH

BIOL
AMB

GESS
ASST

INFK
VMI

MTEC
ScSt@MTEC

PHYS
AMP

BSSE
VMB

CHAB
VAC
PSA

ITET
VMITET

ERDW
VAME

MATH
VMM

MATL
SAM

MAVT
AV-MAVT

USYS
VMUSYS

SEC
AsETH

12.11.2019

49
AVETH

50 years of shaping ETH as a better place to learn, teach and do research.

Events

Politics

Communications

PostDoc+

Counselling
Politics

Representing at

Swiss/European Level
• ActionUni and Eurodoc

ETH Level
• ETH commissions and University assembly

Department Level
• Department conference (through Department Associations)
We organize and support events

Excursions, Sports, Information, Fun and Cultural Events
We help ETH graduates finding jobs since 1989
AVETH

... and a lot more
Insider tips

Some insider tips to get you started!
Welcome Center

Provide information on immigration, finding accommodation, childcare, living and working in Switzerland, ...

www.welcomecenter.ethz.ch
Ask your colleagues!

Facebook & social media

Platforms:
- wohnen.ethz.ch
- woko.ch (age <28)
- wgzimmer.ch
- homegate.ch
- immoscout24.ch
Can I use my drivers license?

For most countries – valid 12 months, then you need to exchange!

- More info: stva.zh.ch

Car sharing:

- Free trial subscription (4 month) mobility.ch
- Discounted annual subscription: CHF 70.-
- Over 160 locations in the city

- Discount on Europcar rentals (long distance) ethz.ch > Services&Resources > travel
“Halbtax” - half fare travel card by [sbb.ch](https://sbb.ch)
- Free for ETH employees*; all tickets cost only half

“GA” - all public transportation in Switzerland by [sbb.ch](https://sbb.ch)
- ETH offers a discount*, you may save money if you commute daily

* [ethz.ch](https://ethz.ch) > Services & resources > Employment & work > Offers and benefits
“NetzPass” – Public transportation in Zurich by zvv.ch
– You may save money if you commute in the city

Rent a bike/eBike! Discounts for ETH members*
– publibike.ch
– smide.ch

* ethz.ch > search: Velo
What insurance do I need?

Obligatory to get a health insurance within 3 months!
- Foreign doctoral students can apply for exemption*
- International student insurance [swisscare.ch](http://swisscare.ch)

Insurance is expensive, compare your options! [comparis.ch](http://comparis.ch)

Is outdoor sports your thing? (30.- per year)
- Helicopter rescue by [rega.ch](http://rega.ch)

* [welcomecenter.ethz.ch](http://welcomecenter.ethz.ch) > Insurance
Many multinational companies prefer candidates who speak some German!

Courses offered by sprachenzentrum.uzh.ch
- Ask your supervisor for financial assistance
- Self-access center (also at Hönggerberg)
- Tandem partner

Other language schools*
- bellingua.ch, klubschule.ch & many more!
- Private teachers

* welcomecenter.ethz.ch > Language
How to get to know people?

ETH events
- ethz.ch > News&events

Transferable skills courses
- ethz.ch > human ressources

AVETH events
- AVETH newsletter and aveth.ch

Clubs and associations
- International student associations
- LGBT associations (L-Punkt, z&h)
- welcomecenter.ethz.ch > Living in Zurich

Join the activities of your department & institute!
Trouble? We can help!

Contact AVETH counselor for advice
– aveth.ch > counseling
– We can and we want to help you!

Psychological counseling
– pbs.ethz.ch

More information and contacts
– respect.ethz.ch
We can help
respected
exploited
www.aveth.ethz.ch

Buddy System
new at ETH?
get a buddy
www.aveth.ethz.ch

Counselling, within AVETH

 ✓ We listen and give advice
 ✓ We handle each case confidentially
 ✓ You can decide at every point how you wish to proceed
 ✓ We can help with your big issues and equally with your small questions
 ✓ Look out for our colleagues
counselling@aveth.ch
buddy@aveth.ethz.ch

12.11.2019
Counselling, what you can expect

- Listen
- De-escalate
- Discuss
- Advise
- Mediate
- Coaching

Counselling@aveth.ch
Counselling, meet your counsellors
Last but not least... Become a member!

... become a member, get active and get involved!

- Register here: www.aveth.ch > join us
- Participate in our events and meetings!
- Follow us on social media!
- Visit us at the poster session 😊
Have a great time at ETH!

Slides available on our homepage: aveth.ch > “Orientation event” post
What is AV-MAVT?

ETH

Professors

Technical and
administrative staff

Students

ETH-level
associations

Departemental-
level associations

Scientific Staff
(Doctoral Students, PostDocs, ...)

AVETH
Akademische Vereinigung des Mittelbaus der ETH Zürich
Academic Association of Scientific Staff at ETH Zurich

voeth

amiv

...
Politics
- Representation in department commissions (DK, UK, RK, MsCZ)
- Involved in working groups about supervision, CO₂ emission reduction, ...
- Involved in the selection of new D-MAVT Professors
- AVETH relations

Networking
- Roofchats
- Labtours
- Summer BBQ
- Volleyball Tournament
- Glühwein event
- Snow shoe Hike

PhD Support
- Helpdesk
- PhD Survey (2016-2018)
- Annual report

Diversity and Outreach
- Professor for students lecture series
- Events targeted at special interest group, all are welcome, e.g. gender balance lunch, equality cakes, ...
- Other visits (CERN, ...)
Who are we?

President
Luca Bosetti
bosettii@ethz.ch

Vice-president
Vikas Patil
vpatil@ethz.ch

The board

PhD Support
Giovanni Bovone
Felipe Antolinez

Diversity and outreach
Sergio Mazzotti
Ramona Achermann

Networking
Giancarlo Luongo
Francesca Pramotton

Infrastructure
Holger Hippke
Lukas Robers

The active members

≈ 30% groups represented + ambassadors
PhD Support

Survey in Fall 2016 → follow-up Spring 2018
https://www.research-collection.ethz.ch/handle/20.500.11850/263477

New survey planned for Spring 2020

Helpdesk
- Advice and/or support about a difficult situation in your group
- Questions about administrative matters
- Research plan
- Annual report
- …

Do you know where to look for help if you have problems at work?

<table>
<thead>
<tr>
<th></th>
<th>2016 survey</th>
<th>2018 survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0.57</td>
<td>0.73</td>
</tr>
<tr>
<td>No</td>
<td>0.43</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Giovanni Bovone
gbovone@ethz.ch

Kerrin Weiss
weisske@ethz.ch
Networking, diversity and outreach

- **During the year** (every 1st Friday of the month)
  - Labtour at 17:00
  - Rooftalk with Apéro riche
  - AV-MAVT meets Professor Series

- **Summer events:**
  - Volleyball tournament
  - Summer-BBQ

- **Winter events:**
  - Roofchat Glühwein-edition
  - Snowshoes Hike
Networking, diversity and outreach

Goal:
1. New @ MAVT or happy to meet and get to know people from other groups you would normally not come across in a casual way.
2. Stimulate interactions between D-MAVT PhD students by bringing them together over a nice lunch meal.

How:
1. Friday after Roofchat: registration via doodle
2. Monday: email with lunch information and table companion detail
3. Tuesday: delicious lunch
How to contact us

- **Email:** [av@mavt.ethz.ch](mailto:av@mavt.ethz.ch)
- **Website:** [www.av.mavt.ethz.ch](http://www.av.mavt.ethz.ch)
- Helpdesk
- Research plan template
- Useful links (ETH inventory, SBB offers, ...)
- **Facebook page:** [www.facebook.com/AVMAVT.ETH](http://www.facebook.com/AVMAVT.ETH)

Become a **member** during enrolment in MyStudies

Join **AV-MAVT:**

- To meet and interact with other PhD students
- To shape the culture of MAVT
- To keep the quality of education at MAVT high
- To contribute to the PhD students happiness
If you are a 1\textsuperscript{st} year PhD student, come to our stand at the apéro and pick up your welcome bag!