



November 2024

## **Guideline**

**to doctoral studies at the Department of Physics  
in alignment with the doctoral degree regulations, dated March 1, 2019**

### **1. General Information**

Legal basis for a doctorate at the department of Physics are the doctoral degree regulations of the University of Stuttgart. The doctoral degree regulations dated March 1, 2019, in effect since April 1, 2019, are available via the following link: <https://www.uni-stuttgart.de/forschung/nachwuchs/document/promotionsordnung-2019-en.pdf>

This guideline defines the terms and conditions for the specific requirements at the Department of Physics.

Further detailed information on doctoral studies at the University of Stuttgart is available on the website <https://www.uni-stuttgart.de/forschung/nachwuchs/promotion/>.

The chairperson of the doctoral committee at the Department of Physics is always the acting vice dean.

### **2. Prerequisites for the doctorate**

At the beginning of the doctoral procedure, a supervisor has to be found according to §3(1)3 of the doctoral degree regulations of the University of Stuttgart, dated March 1, 2019. The confirmation of supervision is documented in the agreement of doctoral studies for the Department of Physics, which is to be signed by both the supervisor and the doctoral student, and is to be attached to the application for acceptance as a doctoral student. The supervision of the doctoral procedure is usually taken over by a professor of the University of Stuttgart who belongs to the Department of Physics; in addition, there are few other persons who have been granted the right for reporting. Please inform yourself accordingly.

### **3. Acceptance as a doctoral student at the Department of Physics**

At the beginning of a doctoral procedure, i.e. before starting work on the dissertation, an application for acceptance as a doctoral student must be submitted, <https://www.uni-stuttgart.de/forschung/nachwuchs/promotion/einschreibung>



### 3.1 Verification of formal prerequisites

The prerequisite for acceptance as a doctoral student is a successful degree in Physics (master's degree, diploma or state examination) and proof that the planned dissertation is mainly in the field of Physics.

Applicants who have completed their studies at a foreign university must prove the equivalence of the degree; this is handled centrally by the examination office of the University of Stuttgart as well as internally by the chairperson of the doctoral committee.

If the scientific achievements do not correspond to the required level of academic expertise, the candidate will be requested to provide further scientific achievements within a period of time to be determined (acceptance upon conditions). In case the acceptance as a doctoral student is subject to conditions, this will be specified accordingly in the letter of acceptance.

### 3.2 Application for acceptance

The application for acceptance as a doctoral student must be submitted both electronically via c@mpus (<https://campus.uni-stuttgart.de>) and in print form, including the agreement of doctoral studies and other attachments, to the following office:

GRADUS  
Promovierendenmanagement  
Pfaffenwaldring 5C  
70569 Stuttgart-Vaihingen

Please include the following documents to your application in print form:

- The agreement of doctoral studies for the Department of Physics (<https://www.f08.uni-stuttgart.de/physik/forschung/promotion-und-habilitation>)
- Your scientific CV (English or German)
- Certified copies of the transcripts (including individual grades as well as an overview of the curriculum)
- Certified copies of the Master's/Bachelor's certificate or diploma

The decision whether the applicant is actually accepted as a doctoral student is up to the doctoral committee of the Department of Physics; the applicant is informed in writing whether he/she fulfills the physical requirements and is therefore accepted as a doctoral student (a copy of the letter is sent to the supervisor and GRADUS).

### 3.3 General information on the acceptance procedure

If acceptance as a doctoral student has been approved on the basis of conditions, these conditions must be fulfilled within a defined period of time or, at the latest, by the time of admission to the examination. Doctoral students who have been accepted on the basis of conditions, have to prove independently and without request that they have fulfilled the set conditions.

In general, you have a time frame of six years for the duration of your doctoral procedure (see also doctoral degree regulations of 2019, § 4, section 11). In certain cases, an extension is possible, which must be indicated in writing to the doctoral committee and approved by its decision.

Applicants who have been accepted as doctoral students must enroll for the duration of the doctorate. This does not apply to doctoral students who work full-time at the University of Stuttgart (at least 50 %) and have, additionally, submitted a written declaration that enrollment is not required.



#### 4. Submission of the dissertation | application for admission to the doctoral examination

Once research work on the doctoral project is completed, the doctoral student submits his/her dissertation to the supervisor and waits for his/her approval. Upon appropriate approval, the dissertation can be submitted to the Dean's office. The submission of the dissertation to the Dean's office implies at the same time the application for admission to the doctoral examination.

At the Department of Physics, the option of a publication-based cumulative form of the dissertation is not offered.

Upon initiation of the doctoral procedure, please consider additionally:

- The dissertation is to be written in German or in English.
- A title page according to template 1 has to be inserted.
- The doctoral student submits a printed copy (i.e. softcover, spiral binding) of the dissertation to the Dean's office; in addition, the dissertation is to be submitted as a pdf-document on an electronic storage medium. A declaration that the dissertation in print form is the same as the electronically submitted version is to be included as attachment (template 2). Corrections or changes are no longer possible after submission.
- The doctoral student sends an identical version of the dissertation to all supervisors.
- An abstract in German as well as in English should be included in the dissertation. If the dissertation is written in English, a more detailed German summary should be included; a German-language dissertation should be supplemented by a detailed summary in English.
- A scientific CV (optionally in German or English) is to be included in the dissertation.
- Each copy of the dissertation should contain a declaration signed by the doctoral student stating that the dissertation is his/her own independent work except those aids that are explicitly permitted. This includes IT-/AI-supported writing tools which must be clearly indicated as aids in the dissertation (product name and version, source, range of functions used). (templates 3 and 4)
- As part of the doctoral procedure, doctoral students should also engage in teaching to acquire teaching skills (LHG § 38 (2), 4<sup>th</sup> sentence). The participation in teaching, for example in the supervision of internships or of tutorials/study groups, to the extent of 2 x 2 SWS has to be proven.
- If the acceptance as a doctoral student was subject to conditions, the fulfillment of these conditions has to be proven with submission of the dissertation, at the latest.
- As far as an English translation of the doctoral certificate is required, this should be requested at the time of submission of the dissertation to the Dean's office by using the appropriate application form.
- As a guideline, there should be at least three months between the submission of the dissertation and the stipulated examination date; the review time is estimated at two months and the handling in the Dean's office including the display time at one month. In alignment with the reporters, the review period can be decreased.



## **5. Review of the dissertation and follow-up procedure**

The dissertation is to be assessed by at least two reporters. The supervisor, generally, is the main reviewer and suggests another possible co-reviewer.

Usually, reporters are professors, tenure-track professors and junior professors of the responsible faculty. If reporters of other faculties or universities are to be consulted for the evaluation of the dissertation, the approval of the doctoral committee is required. All reporters have to be appointed by the head of the doctoral committee.

If an assessment with “summa cum laude” seems to be apparent, this has to be clearly justified in the reports and a third external reviewer should be appointed by the head of the doctoral committee.

The review of the dissertation should usually be completed within three months. The dissertation as well as the expert opinions prepared on it must be displayed for inspection in the Dean’s office at least 14 days before the examination date. The members of the doctoral committee will be informed hereof in writing and may express any objections or requests for changes in writing to the vice dean within the display period.

## **6. Doctoral examination**

### **6.1 Examination date**

The doctoral student sets an examination date in consultation with the members of the examination committee and notifies the Dean’s office accordingly; at the same time, the doctoral student names the title to be used for the university-public presentation. The Dean’s office will officially invite to this presentation according to § 11 (3) of the doctoral degree regulations of the University of Stuttgart.

### **6.2 Examination board**

In addition to the examiners (main reporter and co-reporter), the chairperson of the examination board also belongs to the same. If possible, the chairperson should represent Theoretical Physics if the doctoral project is in Experimental Physics, and should be a member of Experimental Physics if the doctoral project is in Theoretical Physics.

### **6.3 Presentation and oral examination**

The doctoral student will give a presentation open to the public with an approximate duration of 30 minutes; questions from the audience are possible. The presentation will also be considered in the final grading.

Following the presentation, the oral doctoral examination is held under exclusion of the university public. The oral examination takes at least 60 minutes. Part of the oral examination are questions on the content of the thesis as well as on general physics beyond the scope of the doctoral research topic.

Only the members of the examination board participate in the doctoral examination. The examination can also be conducted in English in consultation between the doctoral student and the members of the examination board.

The presentation and the oral examination should always take place in presence at the Department of Physics; an exception according to the doctoral degree regulations should only be used under special circumstances.



#### **6.4 Examination minutes | Grading of the doctorate**

According to §12 of the doctoral degree regulations of the University of Stuttgart, the examination board decides consensually on the grade of the oral examination as well as the overall grade (paragraphs 4 and 5 of §12 of the doctoral degree regulations of the University of Stuttgart of 2019). Both evaluations are to be documented in the minutes of the doctoral examination.

The doctoral student will be informed about the results achieved.

#### **7. Publication of the dissertation**

After the doctoral examination, the doctoral student revises the dissertation if necessary and integrates any requested changes. The publication of the dissertation is regulated in §13 of the doctoral degree regulations of the University of Stuttgart dated March 1, 2019; the "Leaflet for doctoral candidates on the external form of dissertations" in the appendix of the doctoral degree regulations must be considered.

The number of required copies to be submitted in accordance with § 13 (2) of the doctoral degree regulations of 2019 depends on the form of the publication:

- Electronic publication on the publication server of the University of Stuttgart (OPUS): <https://www.oa.uni-stuttgart.de/opus/dissertationen-habilitationen-sonstige-qualifikationsarbeiten/>
- Publication via a publishing company
- Publication as author's own print

After submitting the dissertation to the University library, the supervisor must confirm to the head of the doctoral committee that the copies submitted to the University library correspond to the original version of the dissertation. The head of the doctoral committee subsequently informs the University library and, thus, releases the submitted dissertation for publication.

More detailed information concerning the publication process and the external form of your dissertation are provided on the website of the University library: <https://www.ub.uni-stuttgart.de/forschen-publizieren/stuttgarter-dissertationen/>

#### **8. Doctoral Certificate**

Only after publication of the dissertation, the doctoral certificate will be issued and must be signed by both the Dean of the faculty and the Rector of the University of Stuttgart. This may take some time, thus the certificate cannot always be handed out in a timely manner. If requested, an English translation of the doctoral certificate (which is always drawn up in German) can be provided. Only the issuance of the doctoral certificate entitles the holder to use the doctoral degree awarded.



For any further information on doctoral studies, please also view our faculty websites via the following links:

- The actual doctoral degree regulations of the University of Stuttgart of March 1<sup>st</sup>, 2019: <https://www.uni-stuttgart.de/forschung/nachwuchs/document/promotionsordnung-2019-en.pdf>
- The agreement for doctoral studies of the Department of Physics: <https://www.f08.uni-stuttgart.de/physik/forschung/promotion-und-habilitation/>
- The five steps to gaining your doctoral degree: <https://www.uni-stuttgart.de/en/research/early-career-researchers/doctoral-degree-studies/fivesteps/>
- Registering, applying and enrolling: <https://www.uni-stuttgart.de/en/research/early-career-researchers/doctoral-degree-studies/enrollment/>
- Even this guideline can be found on the website of the Department of Physics: [https://www.f08.uni-stuttgart.de/en/physics/research/doctoral\\_degree-habilitation/](https://www.f08.uni-stuttgart.de/en/physics/research/doctoral_degree-habilitation/)
- Templates to this guideline: see following pages

On administrative side, the contact persons listed below are available to answer any questions you may have with regard to your doctoral studies:

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[promotionen-physik@f08.uni-stuttgart.de](mailto:promotionen-physik@f08.uni-stuttgart.de)

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[promotionen-physik@f08.uni-stuttgart.de](mailto:promotionen-physik@f08.uni-stuttgart.de)



**Template 1: Example title page**

**Title of the dissertation**

from the Faculty of Mathematics and Physics at the University of Stuttgart  
for the attainment of the dignity of a doctor of science  
(Dr. rer. nat.) approved thesis

submitted by  
Author (first and last name)  
from (place of birth)

Supervisor:

Prof. Dr. ....

Institute (more detailed name)  
University of Stuttgart



**Template 2: Declaration of conformity of the digital version with the  
submitted printed version of the thesis**

I, .....  
(name, first name),

born on .....,

hereby declare that the pdf-document submitted by me for the thesis

with the topic

.....  
.....  
.....

corresponds in content and wording to the print version of my thesis, which was also  
submitted.

Stuttgart, .....  
(Date)

.....  
(signature doctoral student)





### **Template 3: Example of a list of AI-based tools**

For the abstract and chapter XY [section-specific listing], text modules were used that were generated with the help of the software ChatGPT 3 (openai.org). The structure and expression of some of the more complex sentences in the abstract and summary were improved with the help of Grammarly (grammarly.com). The runtime optimisation of the implemented simulation program was significantly supported by GitHub Copilot (github.com).



#### **Template 4: Example for a written declaration of independent work**

##### **Declaration**

I, [first name] [last name], hereby declare that the submitted thesis is my own independent work. I have exclusively used the sources and means indicated. Information or content taken over literally or from other works is indicated as such.

Furthermore, I hereby declare that when using IT-/AI-aided writing tools, I have cited all relevant product names, sources, and range of functions used. Except where indicated, the work is my own independent written work. Work written with the aid of IT-/AI-aided writing tools has been done so at my direction.

Stuttgart, .....  
(date)

.....  
(signature doctoral student)