

# Doctoral Regulations of the Department of Mathematics and Computer Science at Freie Universität Berlin

*Disclaimer: Please note that only the German version of this document is legally binding. This translation is intended for the convenience of the non-German-reading public and is for informational purposes only.*

## Preamble

On the basis of Section 14.1.2 of Freie Universität Berlin's supplemental rules and regulations [*Teilgrundordnung (Erprobungsmodell)*] from October 27, 1998, published in Freie Universität's official bulletin *FU-Mitteilungen* 24/1998, in conjunction with Section 70.5 of the Berlin Higher Education Act (*Berliner Hochschulgesetz – BerlHG*) in its revised form as it was made public on July 26, 2011 (GVBl. p. 378), last amended on December 17, 2019 (GVBl. p. 795), the Extended Department Council of the Department of Mathematics and Computer Science at Freie Universität Berlin issued the following regulations on July 1, 2020:\*

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\* The Executive Board of Freie Universität Berlin approved these regulations on November 19, 2021.

### Section 1

#### The Doctoral Title and Its Significance

(1) The Department of Mathematics and Computer Science at Freie Universität Berlin awards the academic title of doctor of science (*Doktor der Naturwissenschaften* – doctor rerum naturalium, Dr. rer. nat.) on the basis of a doctoral procedure that has been successfully conducted and completed according to the following provisions. A doctor of science who is female is entitled to refer to herself in German as “*Doktorin der Naturwissenschaften*” if she so chooses.

(2) The Department of Mathematics and Computer Science represents the fields of mathematics, computer science, and bioinformatics. The subjects covered by these regulations include mathematics, didactics of mathematics, computer science, didactics of computer science, and bioinformatics.

(3) Doctoral degrees are awarded to students who have demonstrated the ability to carry out original research or other advanced scholarship independently within one of the degree programs in subjects offered by the Department of Mathematics and Computer Science. The achievements required for the award of a doctoral degree are a single body of academic work (dissertation) and an oral defense (*Disputation*) in the subject of the doctoral program. The doctorate may serve as the conclusion to a course of post-graduate studies or doctoral studies.

### Section 2

#### Administration of the Doctoral Procedure

(1) The department council shall appoint a doctoral board at the beginning of its term of office, which will be responsible for ensuring the satisfactory progression of the doctoral procedure and for all other matters concerning doctoral studies within the department. The doctoral board consists of at least three university professors who are full members of the teaching faculty and one member of academic staff employed by the department who holds a doctoral degree. University professors from the three overarching fields of study in the department must be members of the doctoral board. The university professors hold the majority of votes. A deputy must be appointed for each member of the committee. At the inaugural meeting of the doctoral board, the board shall appoint a chairperson and a deputy chairperson from among the university professors who are full members of the teaching faculty. The chairperson is entitled to invite experts or specialists who have speaking rights to attend the meetings or be present for individual items on the agenda.

(2) In individual cases, the doctoral board can authorize the transfer of certain decisions or powers to the chairperson of the board, whereby this authorization may be revoked at any time.

(3) In particular, the doctoral board may – independently or on behalf of the doctoral candidate – make any necessary decisions

- in the case of suspected procedural errors in the administration of the doctoral studies
- in the case of disputes between the doctoral candidate and their supervisor.

(4) Applications/petitions must be made without undue delay pursuant to Section 3.

(5) A doctoral committee which will be responsible for assessing the work completed during the candidate's doctoral study (dissertation and oral defense) shall be appointed by the doctoral board (see Section 9).

### Section 3

#### Admission to Doctoral Study

(1) The requirements for admission to doctoral study are as follows:

1. The applicant must have obtained a master's degree by examination in a subject closely related to their proposed doctoral degree program at a university included within the scope of application of the German Basic Law. The master's degree and first degree must together amount to at least 300 ECTS credit points through coursework or an equivalent examination for which a minimum grade of "good" ("*gut*") has been awarded. Applicants who present a grade that falls below "good" may be admitted to the doctoral program in exceptional cases if their previous scientific publications or comparable achievements indicate that there is a high probability that they will be able to successfully complete the doctorate. The doctoral board is responsible for making this decision.

Should the candidate have taken a bachelor's or master's examination in a subject closely related to the proposed doctoral study without having completed the first course of university study, they may still be admitted provided that they have successfully passed a suitability test in the field of study and areas related to the doctoral research project under the supervision of two full professors from the department. The suitability test must be equivalent in terms of requirements and procedures to the assessments under the respectively applicable regulations for master's examinations within the Department for Mathematics and Computer Science.

2. If the applicant has completed a diploma degree program (*Diplomstudiengang*) from a university of applied sciences or a degree program from a university or equivalent in a subject from the areas of mathematics, didactics of mathematics, computer science, didactics of computer science, or bioinformatics that is directly related to their desired subject, but which does not meet the conditions under Section 3.1, they may be admitted to the doctoral study procedure if the doctoral board determines that they are suitably qualified in the subject. The doctoral board may admit the applicant to doctoral study after prior consultation with a representative of the subject under the condition that the applicant produces certificates of completion by a fixed deadline, the acquisition of which is required for the desired doctoral program in addition to the knowledge already held by the applicant.

3. The title of the dissertation and description of the doctoral research project, which meet the requirements of Section 5 in one of the subjects stated in Section 1.2, with the subject being represented by at least one professor in the department, must be submitted.

4. A declaration from a professor that they are available to serve as supervisor and examiner for the doctoral research project must be submitted.

5. The applicant may not have already been awarded a doctorate in the subject for which they have applied (mathematics, didactics of mathematics, computer science, didactics of computer science, or bioinformatics). Furthermore, the applicant may not be simultaneously undertaking a doctorate in the subject for which they have applied (mathematics, didactics of mathematics, computer science, didactics of computer science, or bioinformatics) at another university or institute entitled to award doctorates.

6. The necessary funding must have been secured (see Section 3.3.4).

(2) Irrespective of Section 1.3, a completed dissertation may be submitted as an exception to the rule and in justified cases.

(3) Applications for admission to doctoral study are to be made in writing and addressed to the chairperson of the doctoral board. However, under the provisions of the Fixed-Term Research Contracts Act (*Wissenschaftszeitvertragsgesetz, WissVG*), the doctoral procedure begins independently of Section 3.1 when the topic of the dissertation is made public. The following must be included with the application:

1. Documents that are required pursuant to Section 3.1.
2. A tabular CV.
3. A written declaration stating whether the applicant has already previously applied for a doctoral study program at another institute of higher education or another department at Freie Universität Berlin, including full information regarding the outcome of the process, where applicable.
4. A written declaration concerning the material and/or personnel resources required to carry out the doctoral research project.
5. A written declaration that the doctoral candidate acknowledges the applicable doctoral degree regulations.
6. A declaration concerning the desired academic title in German for women pursuant to Section 1.1.

(4) In the event that the doctoral research project is interdisciplinary in nature, the chairperson of the doctoral board shall inform all departments concerned of the application for admission to doctoral study. The doctoral board then decides whether the project may be carried out within the Department of Mathematics and Computer Science.

(5) The doctoral board shall make decisions regarding applications for admission to doctoral study within one month of receipt; during the period in which courses are not held, this may be extended to a maximum of six weeks. The chairperson of the doctoral board must send a written notification to the candidate confirming their admission to doctoral study, or a written notification and statement detailing the reasons why they were denied admission, where applicable.

(6) Admission may be denied if:

1. The requirements outlined in Section 1 are not fulfilled.
2. The documents to be submitted as part of the application for admission are incomplete and were not sent within three months after such a request was made.
3. The period defined under Section 14 has not yet lapsed.
4. The description of the doctoral research project or the submitted dissertation pursuant to Section 3.2 does not fulfill the requirements pursuant to Section 5.3.1.

(7) The doctoral board is to be notified in the event of a significant change to the candidate's fulfillment of the requirements for admission to doctoral study. In this case, the doctoral board will assess whether the necessary requirements for admission have still been met and decide on whether the doctoral procedure is to be continued.

Section 4

## Enrolling as a Student for a Doctoral Degree

(1) Doctoral candidates who are not already members of Freie Universität Berlin through employment with the university or enrollment in a degree program are required to enroll in their doctoral program as students and remain enrolled until they have successfully passed their oral defense (*Disputation*).

If they do not enroll as students by the deadline stated in the letter admitting them to doctoral study or by the end, where applicable, of the formal extension period, the admission to doctoral study will be revoked. This also applies if the doctoral candidate formally withdraws from the university before successfully passing the oral defense. Candidates are permitted to reapply for admission to doctoral study in cases where their original admission is revoked on the above grounds.

## Section 5

### Doctoral Research Project, Standard Time to Degree

(1) The candidate is free to choose the topic of their doctoral research project; however, they are advised to take the department's key research areas as a basis. The doctoral research project should typically be completed within four years (standard time to degree).

(2) Should a doctoral candidate exceed the regular doctoral study period pursuant to Section 5.1, they must submit an application to the doctoral board to extend the study period with a short statement as to progress made to date on the dissertation and how much time is still estimated until completion. If the doctoral candidate enrolls prior to this pursuant to Section 4, then the doctoral candidate is to submit the application to the Student Records and Registration Office after approval by the doctoral board. If the doctoral candidate does not submit the approved extension request with good reason and within three months after being asked to produce such a document, the admission to doctoral study will be revoked. If the doctoral candidate was enrolled as a student, their enrollment will be revoked.

(3) The description of the doctoral research project (see Section 3.1.3) must illustrate that the doctoral candidate has an insight into current research in the specialist field of their proposed doctoral research project, that they understand how to situate the topic within a wider academic context, and that the dissertation is expected to make a new contribution to the state of research. In the case of serious doubts as to whether the requirements have been met pursuant to the above, the doctoral board may obtain an expert opinion.

## Section 6

### Supervision of the Doctoral Research Project

(1) By admitting the candidate to doctoral study, the department formally assumes responsibility for the supervision, examination, and assessment of the dissertation and oral defense during the doctoral procedure.

(2) A doctoral research project should typically be supervised by a university professor within the department who is qualified in the subject. They are required pursuant to Section 3.1.4 to submit a declaration that they will supervise and assess the doctoral research project. They must report to the doctoral board on the progress of the dissertation on request. The agreement by the respective professor to supervise the doctoral candidate is binding for the entire doctoral procedure and may not be delegated. Instructors from universities of applied sciences are permitted to contribute to supervising the doctoral candidate in coordination with the primary supervisor.

(3) Irrespective of Section 6.2, the heads of research groups/independent junior research teams and other members of external research institutes and educational establishments with equivalent qualifications have the right to act as supervisors, examiners, and evaluators for doctoral degrees within the department, provided they have been granted equivalent status in terms of their rights and obligations as part members of the faculty within the framework of a cooperation agreement with Freie Universität Berlin and in agreement with the department. The same applies to the heads of junior research teams financed through external funding based at Freie Universität Berlin who have been recognized officially by the department in a contractual agreement as having the right to supervise, assess, or examine doctoral candidates.

(4) In justified cases, professors who are not members of the department may be appointed as supervisors by the doctoral board. The doctoral board in such cases selects a full professor from the department to support the external supervisor. External supervisors must ensure that they can offer an appropriate level of supervision, even if their field of employment is mainly outside the State of Berlin, in particular ensuring that consistent contact is maintained with the doctoral candidate.

(5) The supervisor shall make themselves available and dedicate adequate time to the doctoral candidate for the purposes of advising them and discussing the doctoral research project. It is possible to conclude a more extensive supervision agreement.

(6) If important reasons compel a supervisor, or the doctoral candidate, to end the supervision agreement during the course of the doctoral procedure, they are obligated to notify the doctoral board at the earliest opportunity, stating the reasons for the decision. The doctoral board makes the decision on whether a new supervisor is to be appointed. Even if the supervisor ceases to be a member of Freie Universität Berlin, they retain the right to supervise a dissertation which has already been started until its completion, and to act as a member of the doctoral committee.

## Section 7

### Dissertation and Topic of the Oral Defense (*Disputation*)

(1) The written achievements necessary to obtain a doctoral degree must demonstrate the doctoral candidate's ability to carry out independent scholarly work at a high level, the results of which contribute or aim to contribute new knowledge to the relevant research field. The dissertation must be written in German or English; it is not permitted to write in a mixture of the two.

(2) The dissertation may be submitted in two formats:

a) An unpublished or part-published dissertation that presents the research project and its findings in their entirety. Prior publications of individual results of the dissertation are permitted subject to consultation between the doctoral candidate and the supervisor. Publications of this nature must be indicated in the introduction with due reference to the relevant sections.

b) A cumulative dissertation that is made up of at least four published or unpublished individual works by the doctoral candidate and potentially other co-authors in which the doctoral candidate played a primary role or made an indispensable contribution, and which together comprise an achievement equivalent to a dissertation as defined under Section 7.2.a above. Any prior publications of individual works must have been published in internationally renowned, peer-reviewed, academic journals or conference proceedings, while unpublished works must have been accepted for publication by journals or conference proceedings of the same standard. A cumulative dissertation must have an overall title. It must also include a list of the individual academic works that form the basis of the dissertation in addition to the information stated under Section 7.5. The individual works must be included in the original text and consolidated into a well-rounded, complete text by means of

introductory, connecting, and concluding texts in which the results of the research are comprehensively interpreted, evaluated, and discussed. The sections that pertain to the inserted publications and the sections that pertain to the additional text must be clearly identifiable. The dissertation must include all texts and data relevant to understanding and evaluating the subject, including attachments if necessary. Differences in terminology and notation between the individual academic works must be directly addressed and highlighted. If the individual works have previously been published as co-authored articles, the supervisor must declare in writing the extent of the doctoral candidate's contribution and the relevant sections. A percent value does not suffice in this case. The examiners responsible for the doctoral procedure are not bound to replicate the appraisal of the individual works upon their publication in their assessment.

(3) In the case of written achievements as set out in Section 7.2 that have been prepared and/or co-authored with other researchers, the proportion of the work carried out by the doctoral candidate must be clearly defined and delineated in such a way that it can be assessed in its own right. The doctoral candidate is obligated to present a declaration summarizing their contribution to the conceptualization, implementation, and documentation of the works comprising the dissertation. The names and addresses of the co-authors are to be recorded in the candidate's official doctoral file.

(4) The doctoral candidate must state all resources used and assistance received and declare that they are solely responsible for the dissertation. The dissertation may not have been submitted as part of an earlier doctoral procedure. If uncertainties arise, then academic work from prior doctoral procedures (see Section 3.3.3) are to be presented for comparison.

(5) On the title page, the dissertation must include the topic, the name of the author, a statement that it is being submitted to the Department of Mathematics and Computer Science at Freie Universität Berlin as a dissertation, and the year of submission on the title page, as well as a cover page with the name of the supervisor. The appendices should include a summary of the results in German no more than one page in length, and a brief CV, subject to the doctoral candidate's consent.

(6) Five printed and bound copies of the dissertation must be submitted. One copy must remain with the department. The dissertation must be submitted in both printed and electronic form. The dissertation may be analyzed for plagiarism using suitable software programs in compliance with data protection regulations.

(7) The doctoral candidate is obligated to submit a declaration signed by both them and their supervisor prior to the doctoral certificate being issued, stating that the research data underlying the dissertation may be stored for a period of ten years at the responsibility of the supervisor in such a way that it is made accessible to the research community if necessary.

(8) The doctoral candidate submits a proposal for their presentation topic for the oral defense with a brief summary of its content. They may seek counsel from their supervisor or the doctoral committee in selecting the topic of their presentation. The doctoral committee shall decide on whether the proposed topic of presentation is accepted. An alternative proposal may be requested if necessary.

## Section 8

### Examiners' Reports

(1) The doctoral board appoints the examiners as soon as the dissertation has been submitted.

(2) The first examiner appointed for the dissertation is usually the supervisor pursuant to Section 6.2.1. Moreover, the doctoral board, in agreement with the doctoral candidate, appoints an external examiner, who must also be a university professor. A maximum of two further examiners may be

appointed. At least one of the examiners must be a full professor and at least one of them must be a member of the department. If key methodological aspects or content of the dissertation refer to an area of research that falls under the remit of a different department, then one of the other examiners must be from that department. At least one examiner may not simultaneously be the co-author of one or several of the individual academic works forming the basis of the dissertation. The regulations in Sections 6.2 to 6.4 still apply.

(3) The examiners' reports must be written independently and submitted within three months of being requested to the doctoral degree office. If this deadline is not met, the supervisor must outline the reasons in writing to the doctoral board. Should an external examiner fail to meet the deadline, the doctoral degree office will contact them and report back to the doctoral board regarding the situation. Should an external examiner exceed the deadline by over a month, the doctoral board is permitted to appoint a new examiner. The reports are to be treated as confidential. When the reports are requested, the examiners will be informed in writing via the doctoral degree office that the doctoral candidate will be granted the right to view the reports pursuant to Section 11.1. The report should evaluate the importance of the dissertation topic in a wider context, acknowledge the results of the dissertation, and demonstrate any flaws or omissions. Furthermore, the examiner may recommend editorial changes for the version of the dissertation to be printed, which must be clearly noted. Should the examiners recommend revisions that go beyond typical editorial changes, then these changes are to be made in the version of the dissertation to be printed and the original version documented in an attached corrigendum. When giving the overall grade for the dissertation, each examiner must recommend either acceptance of the dissertation and a grade as defined in Section 10.1, or rejection of the dissertation. If a report does not make its recommendations and grading clear, the doctoral committee shall return it to the examiner to be amended.

(4) The doctoral board, at the suggestion of the doctoral committee, must appoint a further external examiner if the examiners disagree about the grade to be given, to the extent of which the grade is disputed by more than one full grade, or the reports feature position statements that conflict with the assessment of the dissertation pursuant to Section 8.5.

(5) When the reports are complete, the dissertation must be made available to the public for ten working days (Monday to Friday) during the department's lecture period. During the period in which courses are not held, this is to be extended by five further working days. Upon the request of one of the members of the department qualified to supervise dissertations pursuant to Section 6.2 to the chairperson of the doctoral board, the viewing period may be extended by ten working days. Every member of this group is entitled to view the dissertation and reports as well as submit a written position statement, which must be added to the doctoral file. Each member of this group shall be notified via email by the doctoral degree office regarding the viewing period for the dissertation.

## Section 9

### Doctoral Committee

(1) The doctoral board appoints the doctoral committee for the upcoming doctoral procedure, at the earliest following submission of the dissertation and at the latest following submission of the reports.

(2) The doctoral committee typically consists of four members of the Department of Mathematics and Computer Science: three university professors or persons with equivalent qualifications pursuant to Section 6.3 to 6.4 and a research associate who already holds a doctorate. A maximum of one external professor may be appointed as a member from among the university professors as an exception to the rule. The doctoral committee may include a maximum of two university professors



who were also co-authors of the individual academic works that form the basis of the dissertation. Additional members who are not entitled to vote may be appointed to the doctoral committee as advisory members.

(3) The meetings of the doctoral committee shall not be open to the public. Its rulings are to be treated as confidential.

(4) In the event that a voting member of the doctoral committee resigns, the doctoral board shall fill their position accordingly.

(5) Other relevant departments are to be given due consideration on the doctoral committee in the case of interdisciplinary projects.

(6) The doctoral committee shall designate the chairperson of the doctoral committee.

## Section 10

### Examiners' Assessment of the Dissertation and Date of the Oral Defense (*Disputation*)

(1) Following the viewing period, the members of the doctoral committee shall decide whether or not to accept the dissertation. The doctoral committee uses the following grades:

summa cum laude (with honors)

magna cum laude (very good)

cum laude (good)

rite (pass)

(2) If the dissertation is rejected, the doctoral committee will declare that the doctoral procedure has not been passed, stating the reasons in a concluding report. The chairperson of the doctoral board must send the doctoral candidate a written notification and statement detailing the reasons why they did not pass the doctoral procedure.

(3) The doctoral committee determines the topic for the oral defense presentation in consideration of the doctoral candidate's proposal (see Section 7.8) and notifies the doctoral candidate. It also decides on the date of the oral defense in conjunction with the doctoral candidate, which should be during the period in which courses are held, and invites the wider university community to attend. At least two weeks must lie between the announcement of the topic and the oral defense. The maximum period of time between the submission of the final report and the oral defense should be two months during the period in which courses are held.

Should the doctoral candidate withdraw at their own wish from the oral defense, they may not be awarded a doctoral title and they are deemed to have failed in their doctoral candidacy. The chairperson of the doctoral board must send a written notification to the candidate stating that they have failed.

## Section 11

### Oral Defense (*Disputation*)

(1) The purpose of the oral defense is to demonstrate that the doctoral candidate is able to present their research findings orally and are capable of scholarly debate in relation to their academic subject. They are expected to be able to defend their dissertation against criticism, especially objections or comments raised by the examiner. To this end, they must be granted the right to view the reports

pursuant to Section 8.3 and statements pursuant to Section 8.5 two weeks prior to the defense at the earliest. The oral defense may be held in German or English. All members of the doctoral committee and the doctoral candidate must attend the oral defense in person. In certain circumstances, the doctoral board may determine by request and at its discretion that the oral defense may take place electronically via video conference or video phone call. A consensus must be established among all members of the doctoral committee and the doctoral candidate prior to this decision. If the doctoral candidate is not present in person, a monitoring officer appointed by the doctoral board must ensure that the oral defense takes place in compliance with the regulations. No right to a remote format exists.

(2) The oral defense lasts 90 minutes. It begins with a presentation around 25 minutes in length, followed by a discussion lasting around 15 minutes. The doctoral candidate outlines a topic of general interest and of their choice for their presentation (see Section 7.8). A defense of the dissertation lasting 20 minutes follows, over the course of which the results of the dissertation and its arguments are presented. This is followed by questions from the doctoral committee, and a concluding discussion during which questions can also be put forward by the other people present.

(3) The chairperson of the doctoral committee is to produce and sign the official minutes of the defense.

(4) If the doctoral candidate misses the oral defense without good reason, then it is to be considered failed. The chairperson of the doctoral board must send the doctoral candidate a written notification and statement detailing the reasons why they did not pass the doctoral procedure.

## Section 12

### Decision to Confer a Doctoral Degree

(1) The doctoral committee shall make its decision on the oral defense after the examination has concluded. If the candidate passes the examination, the grades pursuant to Section 10.1 shall be used.

(2) If the candidate fails the oral defense, they may repeat it three months at the earliest or eighteen months at the latest after the initial examination. At the next oral defense attempt, the doctoral candidate must be able to provide information on how their dissertation topic has developed in light of the research that has been published in the meantime. If the candidate also fails at the second attempt, the doctoral committee will declare the doctoral degree as not awarded, stating the reasons in a concluding report. The chairperson of the doctoral board must send the doctoral candidate a written statement detailing the reasons why they did not pass the doctoral procedure.

(3) If the oral defense has been passed, the doctoral committee determines the overall result of the doctoral assessments. The doctoral committee uses the grades stated in Section 10.1. The grade "summa cum laude" may only be given if the dissertation and the oral defense were given this grade.

(4) Having passed the dissertation and oral defense, the doctoral candidate may request an interim certificate featuring the topics and grades of the dissertation and defense as well as the overall grade. The interim certificate and/or concluding report does not entitle the candidate to use the title of "Doctor" pursuant to Section 13.

(5) After the doctoral procedure is completed, it must still be treated confidentially. The right to inspect records shall be granted subject to legislative requirements.

## Section 13

### Concluding Report

(1) If the doctoral procedure is completed with a positive outcome, the chairperson may produce a concluding report amounting to one page that summarizes the doctoral candidate's achievements in their dissertation and oral defense upon the request of the doctoral candidate and in consultation with the doctoral committee. Excerpts from the reports may be quoted without naming the author of the report.

(2) The concluding report is issued to the doctoral candidate together with the doctoral certificate.

(3) The concluding report also includes details such as the title of the dissertation and the topic of the oral defense and the overall grade, as well as a breakdown of the individual grades for the dissertation and defense. It may be written in German or English (under the title "Summary Review").

#### Section 14

##### Re-admission to the Doctoral Procedure

Where a candidate is not awarded a doctoral degree because their performance is judged insufficient and a failing grade is therefore awarded, they may reapply for admission to a doctoral degree procedure in this subject a minimum of six months thereafter, whereby the new dissertation may be submitted no earlier than one year from the new admission. This shall also apply in the event that a doctoral program in this subject was not passed at another university or institution entitled to award doctorates.

#### Section 15

##### Withdrawal of the Application for Doctoral Study and Termination of Procedure

(1) The doctoral board may comply with the doctoral candidate's withdrawal of their application for admission to doctoral study, provided that the dissertation has not yet been submitted (see Section 7.1).

(2) After six years from admission to doctoral study, the doctoral board may decide to terminate the procedure subject to the written consent and opinion of the candidate's supervisors. The notification to terminate the procedure must be accompanied by a statement of reasons written by the chairperson of the doctoral board. Candidates are permitted to reapply for admission to doctoral study in cases where their original admission is revoked on the above grounds.

#### Section 16

##### Doctoral Certificate

(1) A certificate for the doctorate will be issued in German. A supplemental document in English will also be issued.

(2) It includes:

1. The names of Freie Universität Berlin and the Department of Mathematics and Computer Science
2. The name of the doctoral candidate
3. The doctoral title awarded pursuant to Section 1.1
4. The title of the dissertation
5. The subject of the research

6. The date of the oral defense; this is deemed to be the date on which the candidate received their doctorate
7. The overall results of the degree pursuant to Section 12.3
8. The names of the examiners
9. The name and signature of the dean
10. The official stamp of Freie Universität Berlin.

(3) If the doctoral research was conducted within the course of a successfully completed structured doctoral study program, then the name of the doctoral study program may be included in the certificate.

(4) The doctoral certificate is issued by the dean within four weeks after the requirement to submit copies of the dissertation has been fulfilled pursuant to Section 18. The doctoral candidate may use the doctoral title pursuant to Section 1.1. from the moment of receipt of the certificate.

## Section 17

### Publication Formats, Requirement to Submit Copies of the Dissertation

(1) Dissertations are to be published in a digital format via the University Library within one year from the date of the oral defense. Prior to this, the doctoral candidate must obtain permission to print the version of the text that is to be published from the committee chairperson.

(2) The published version must meet the formal requirements pursuant to Section 7.5.1, state the names of the examiners, and provide the date of the oral defense.

(3) A digital PDF version and two printed copies must be submitted to the University Library.

## Section 18

### Joint Doctoral Programs with Institutions Outside of Germany

(1) Doctoral procedures may only be conducted together with universities outside of Germany or other equivalent institutions if

a) The applicant fulfills the requirements for admission to doctoral study within the Department of Mathematics and Computer Science at Freie Universität Berlin.

b) The universities outside of Germany or other equivalent institutions have the right to award doctorates under their governing national legislation and the title that they award is recognized within the scope of the German Higher Education Framework Act.

(2) The implementation of joint doctoral procedures must be arranged between the participating departments, faculties, or equivalent offices, whether this is on a case by-case basis or in general. These agreements shall apply alongside the provisions of these regulations. Equivalence with the requirements and procedures of these regulations must be guaranteed where applicable.

## Section 19

### Appeals Process

The doctoral candidate is entitled to submit an appeal to the doctoral board regarding the results of the doctoral procedure or individual sections thereof. They must declare their intention to do so to the

chairperson of the doctoral committee in writing within three months of the announcement of the result.

## Section 20

### Revocation of Doctoral Title

The revocation of a doctoral title is subject to legislative requirements.

## Section 21

### Honorary Doctorates

Upon the request of the dean or at least three professors from the Department of Mathematics and Computer Science, the department council may award an honorary doctorate pursuant to Section 1.1 with the title of "Dr. rer. nat. h. c." for outstanding academic achievements within the field of one of the department's fields of study. The doctoral board is to appoint a doctoral committee pursuant to Section 9.2 that will present a report to the board. The decision of the department council requires the majority of the members of the department council entitled to use the corresponding doctoral title. Professors in the department who are not members of the department council must be enabled to participate in the vote.

## Section 22

### Entry into Force and Interim Regulations

(1) These regulations enter into force on the day following their publication in *Mitteilungen* (the official bulletin of Freie Universität Berlin). At the same time, the previously applicable doctoral regulations at the Department of Mathematics and Computer Science from July 19, 2006 (*FU-Mitteilungen* 2/2007), last amended on December 21, 2011 (*FU-Mitteilungen* 17/2012), shall lapse.

(2) In the case of doctoral procedures that began before the regulations entered into force, the doctoral candidate may choose to continue their studies under the previously applicable regulations of the Department of Mathematics and Computer Science at Freie Universität Berlin pursuant to Section 1.2. This decision must be made by the end of the semester following these regulations coming into force. Once the request for continuation under the chosen regulations has been approved, it is final and the student may not then apply to transfer their studies to the other regulations.