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# Doctoral Regulations for the Faculty of Mathematics, Physics & Computer Science at the University of Bayreuth dated 20 September 2017

# as amended on 7 August 2019

Pursuant to Article 13(1) sentence 2 in conjunction with Article 64(1) sentence 5 of the Bavarian Higher Education Act (Bayerisches Hochschulgesetz – BayHSchG), the University of Bayreuth hereby issues the following Doctoral Degree Regulations for the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth:

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#### Part I: General provisions

### Section 1 Doctoral degree

- (1) <sup>1</sup>The University of Bayreuth shall award the academic degree of "Doktor der Naturwissenschaften" (Dr. rer. nat.) through its Faculty of Mathematics, Physics and Computer Science. <sup>2</sup>The degree may be awarded as "Doktorin" or "Doktor". <sup>3</sup>The abbreviated form remains unaffected.
- (2) Pursuant to Article 64(1) of the Bavarian Higher Education Act (Bayerisches Hochschulgesetz – BayHSchG), the award of a doctoral degree shall serve as evidence of having completed independent academic research at a level that substantially exceeds the requirements set forth in Section 4.1.1 hereof for admission to doctoral studies.
- (3) Award of a doctoral degree shall require doctoral students to write an academic research paper (thesis) and pass a viva voce examination (thesis colloquium).
- (4) <sup>1</sup>As set forth in Section 18 hereof, the University of Bayreuth shall award the academic title of "Doktor der Naturwissenschaften ehrenhalber" (Dr. rer. nat. h. c.) through its Faculty of Mathematics, Physics and Computer Science in exceptional cases in which individuals earn this title on the basis of outstanding academic achievements. <sup>2</sup>Sentences 2 and 3 of Section 1.1 shall apply accordingly.

### Section 2 Entitlement to administer examinations

<sup>1</sup>The lecturers entitled to administer examinations pursuant to these regulations shall be professors within the meaning of Article 2(3) sentence 1 of the Bavarian Higher Education Employment Act (Bayerisches Hochschulpersonalgesetz – BayHSchPG), professors who have qualified for release from duty, retired professors (cf. Article 13 BayHSchPG) and all other lecturers entitled to administer examinations pursuant to Section 4 of the Higher Education Examiners Act (Hochschulprüferverordnung – HSchPrüferV) who are members of the Faculty of Mathematics, Physics and Computer Science. <sup>2</sup>Lecturers from other faculties at the University of Bayreuth or other German or international institutions of higher education may also be appointed as examiners, provided they meet the qualification requirements specified in Article 62(1) of the Bavarian Higher Education Act (BayHSchG) in conjunction with Section 4 of the Higher Education Examiners carried out in cooperation with universities of applied sciences (Fachhochschulen/HAWs) and Part V of these regulations shall apply to "binational" doctoral programmes (joint programmes with foreign universities).

#### Section 3

#### Doctorate committee and extended doctorate committee

- (1) Unless otherwise stipulated in these doctoral degree regulations, the doctorate committee shall be responsible for granting admission to doctoral studies and for executing the doctoral examination process.
- (2) <sup>1</sup>The doctorate committee shall comprise the dean, acting as chair, and three professors within the meaning of Article 2(1)(1) Bavarian Higher Education Employment Act (BayHSchPG) as well as one other member of academic staff who has a doctorate, is another full-time member of academic staff and teaches at university level. <sup>2</sup>They shall be elected by the faculty council for a term of two years.
- (3) <sup>1</sup>The doctorate committee shall meet quorum when all members have been summoned in line with relevant procedures and the majority of members are present and eligible to vote. <sup>2</sup>The committee shall pass resolutions based on the majority of votes cast. <sup>3</sup>It shall not be permitted to abstain from voting, cast secret ballots or vote by proxy. <sup>4</sup>Should a vote result in a tie, the chair shall have the casting vote.
- (4) <sup>1</sup>The decisions of the doctorate committee must be conveyed in writing to applicants and doctoral students by the dean. <sup>2</sup>Decisions having adverse effects shall be justified and include information on the available legal remedies.
- (5) Exclusion on the basis of personal involvement shall be governed by Article 41(2) of the Bavarian Higher Education Act (BayHSchG) in conjunction with Articles 20 and Article 21 of the Bavarian Administrative Procedures Act (Bayerisches Verwaltungsverfahrensgesetz – BayVwVfG).
- (6) <sup>1</sup>The extended doctorate committee shall be composed of the members of the doctorate committee, all other university teaching staff within the meaning of Article 2(3) sentence 1 of the Bavarian Higher Education Employment Act (BayHSchPG), professors who have qualified for release from duty and retired professors at and from the Faculty of Mathematics, Physics and Computer Science. <sup>2</sup>Its chair shall be the dean. <sup>3</sup>It shall be called within fourteen days of any one member's request. <sup>4</sup>Section 3.3 to 3.5 hereof shall apply accordingly.

#### Part II: Regular process of obtaining a doctoral degree

### Section 4 Application for admission to doctoral studies

- (1) Applicants for a doctoral studies programme shall fulfil the following requirements:
  - They must have obtained a university degree in the relevant discipline; this degree 1. shall normally be a "Diplom" from a German university, a master's degree from a university or university of applied sciences (Fachhochschule/HAW) or the German First State Examination in Secondary School Teaching. The doctorate committee may also accept other types of degrees from institutions of higher learning as well as degrees in related disciplines as sufficient for meeting the doctoral programme requirements; it may also impose additional requirements on applicants in certain cases. The doctorate committee shall also decide on the recognition of degrees from institutions of higher education outside of Germany. In so doing, it shall apply the principle of equivalence in accordance with Article 63 of the Bavarian Higher Education Act (BayHSchG). Equivalence shall be ascertained using the equivalence agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) and the German Rectors' Conference (HRK). In cases of uncertainty regarding equivalence, the Central Office for Foreign Education (ZAB) may be consulted. The requirements set forth in sentence 1 above shall be considered met if applicants pass the test of aptitude for pursuing doctoral studies pursuant to Section 6 hereof.
  - 2. Applicants may not have failed that test or a similar type of doctoral examination.
  - Applicants shall have entered into a supervision agreement pursuant to Section 7 hereof with a lecturer entitled to administer examinations pursuant to Section 2 sentence 1 hereof; however, applicants shall not be automatically entitled to conclude a supervision agreement.
  - 4. Applicants may not have proven themselves unworthy of holding the title of "Doktor" through their conduct.
- (2) <sup>1</sup>Applications for doctoral studies shall be made in writing to the doctorate committee via the dean. <sup>2</sup>Applications shall be accompanied by the documents required as evidence of meeting the requirements set out in Section 4.1 and a statement from applicants that they have not been accepted for doctoral studies in the same discipline at another university or institution of the University of Bayreuth that awards doctorates. <sup>3</sup>The application shall also involve registering online with the faculty as an applicant.

(3) Doctoral studies shall commence on receipt of written confirmation of acceptance for doctoral studies at the faculty.

### Section 5 Statistical requirements

- (1) To implement the university's data collection requirements as set forth in the Higher Education Statistics Act (HStatG) of 2 November 1990, as amended, doctoral students' personal data as specified in Section 5 of the Higher Education Statistics Act shall be collected, automatically saved and processed by the faculty upon submission of the application for admission to doctoral studies; this shall be done for the purpose of fulfilling the statutory requirements and for purposes of legislation and planning in higher education pursuant to Section 1(1) sentences 1 and 2 of the Higher Education Statistics Act. Applicants shall be obligated to cooperate and provide their personal data (Article 10(2) sentence 3 BayHSchG) in this regard.
- (2) <sup>1</sup>The data to be collected pursuant to the Higher Education Statistics Act (HStatG) of 2 November 1990 shall be submitted regularly to the Statistics Office of the State of Bavaria and to university administrators for the purpose of presenting higher education statistics. <sup>2</sup>Personal data shall be utilized and processed as stipulated in Article 10 of the Bavarian Higher Education Act (BayHSchG).

### Section 6 Test of aptitude for doctoral studies

- (1) Admission to the test of aptitude for doctoral studies shall require that:
  - Applicants do not meet the requirements set out in Section 4.1.1 and have not obtained a bachelor's degree in the relevant discipline from a university or university of applied sciences (Fachhochschule/HAW) or a "Diplom" degree in the relevant discipline from a university of applied sciences (Fachhochschule/HAW) with a final grade of "good" or better.
  - 2. Applicants have not previously failed a relevant test of aptitude for doctoral studies or a similar test at another German institution of higher education.
  - A lecturer entitled to administer examinations pursuant to Section 2 hereof is in favour of admission to the test of aptitude for doctoral studies after consulting with the relevant applicant.

- (2) <sup>1</sup>Applications for admission to the test of aptitude for doctoral studies shall be submitted in writing to the chair of the doctorate committee. <sup>2</sup>Applicants shall include the following documents with their applications:
  - 1. Documentation of having met the admission requirements specified in Section 6.1.2 and 6.1.3 above
  - 2. A statement indicating whether they have previously taken a test of aptitude for doctoral studies or a similar test at another institution of higher education

<sup>3</sup>Applicants may also submit additional documentation of any qualifications relevant to their fields of study that go beyond their current degrees.

- (3) <sup>1</sup>The doctorate committee shall be responsible for deciding on admission to the test of aptitude for doctoral studies. <sup>2</sup>Admission shall be denied if:
  - 1. The requirements for admission set out in Section 6.1 above have not been met, or
  - 2. Applicants have proven themselves unworthy of holding the title of "Doktor" through their conduct, or
  - 3. Applicants have not provided all of the documentation specified in Section 6.2 sentence 2 above
- (4) Applicants must prove by way of the test of aptitude for doctoral studies that they have the subject knowledge and academic ability necessary for pursuing doctoral studies.
- (5) <sup>1</sup>The test of aptitude for doctoral studies shall consist of an oral examination before an examination committee lasting approximately one hour. <sup>2</sup>The examination committee shall be composed of three lecturers from the relevant discipline who are entitled to administer examinations. <sup>3</sup>The chair of the doctorate committee shall appoint the examination committee and select an examiner to chair the committee. <sup>4</sup>He or she shall set the examination date and invite the members of the examination committee and the applicants to the examination with one week's notice. <sup>5</sup>Section 14.7 hereof shall apply accordingly.
- (6) <sup>1</sup>The test of aptitude for doctoral studies shall not be graded. <sup>2</sup>The examination committee shall decide whether applicants have met the requirements specified in Section 6.4 above. <sup>3</sup>If it determines that the requirements have not been met, the test of aptitude for doctoral studies shall be deemed failed. <sup>4</sup>Section 9.3 sentence 2 hereof shall apply accordingly.
- (7) <sup>1</sup>A failed test of aptitude for doctoral studies may be repeated once. <sup>2</sup>The application for admission to a repeat aptitude test must be submitted within one year of notification of failing the test, unless the chair of the doctorate committee grants applicants a grace period due to special circumstances or events outside of their control.

- (8) Applicants shall receive a notice, signed by the chair of the doctorate committee, with the result of their test of aptitude for doctoral studies; this notice shall give reason and indicate potential legal remedies.
- (9) Once applicants have passed the aptitude test and met the requirements specified in Section 4.1.2 to Section 4.1.4 of these regulations, they shall receive from the faculty written confirmation of their acceptance for doctoral studies.

#### Section 7 Supervision and supervision agreement

- (1) <sup>1</sup>Doctoral studies shall be supervised by a lecturer entitled to administer examinations. <sup>2</sup>The key aspects of the doctoral studies relationship shall be set down in a written supervision agreement between the applicant and this lecturer. <sup>3</sup>The supervisor shall inform the doctorate committee if an applicant quits doctoral studies.
- (2) <sup>1</sup>Should the supervisor cease to be one of the lecturers entitled to administer examinations pursuant to Section 2 sentence 1 hereof, the supervisor may continue supervising for up to two years afterwards, provided he or she remains entitled to administer examinations in accordance with Section 2 hereof. <sup>2</sup>The doctorate committee may extend the time period under sentence 1, above, by up to two years at most if there exists good cause.
- (3) If a supervisor is unable to continue supervising a student's doctoral research, the doctorate committee shall arrange for a continuation of supervision to the extent possible.
- (4) <sup>1</sup>If doctoral studies are pursued in cooperation with a university of applied sciences (Fachhochschulen/HAW; Section 19 hereof), such studies shall be supervised on equal terms by the lecturers of the university of applied sciences who are entitled to administer examinations and those of the university; the supervision agreement shall be concluded jointly between those parties and the applicant. <sub>2</sub>Section 7.1 and 7.2 above shall apply accordingly.

#### Section 8

#### Application for admission to the doctoral examination process

<sup>1</sup>Applications for admission to the doctoral examination process shall be submitted in writing to the doctorate committee via the dean; admission to doctoral studies shall be a prerequisite for admission. <sup>2</sup>The application shall include the following:

- 1. Five identical copies of the student's doctoral thesis, which must fulfil the requirements of Section 11 hereof
- 2. An abstract, with title, in both German and English and both printed and in a form suited to electronic transmission; the format for the latter shall be discussed with the dean
- 3. A sworn statement from the doctoral student affirming that the thesis is the product of independent, self-directed study and does not rely on any sources or aids other than those specified (cf. Article 64(1) sentence 6 BayHSchG) as well as a statement to the effect that he or she has not previously submitted the thesis for the purpose of obtaining an academic degree and that he or she has never failed this or any other similar type of doctoral examination
- 4. A statement indicating that no assistance has been received from professional thesis consultants/coaches or similar service providers and that no such assistance shall be utilized in the future
- 5. The doctoral student's curriculum vitae with particular emphasis on his or her educational history
- 6. An official certificate of good conduct (amtliches Führungszeugnis) Applicants from outside of Germany shall submit evidence that is recognized as equivalent by the University of Bayreuth. This may be an excerpt from their home country's criminal records, a certificate of good character or a comparable document. Members of the University of Bayreuth shall not need to submit a certificate of good conduct.
- 7. An electronic copy of the doctoral thesis along with a statement of consent from the doctoral student permitting the electronic copy of the thesis to be subject to a special review, taking into account the student's copyright and privacy rights
- 8. A statement of consent from the applicant indicating that in the event of suspicion of academic misconduct, the university will be permitted to investigate the matter itself by conducting an internal review.

### Section 9 Decision on admission to doctoral studies and to the doctoral examination process

- (1) Admission to doctoral studies shall be denied if the requirements specified in Section 4.1 hereof have not been met.
- (2) Admission to the doctoral examination process shall be denied if:
  - 1. Admission to doctoral studies has not been granted, or
  - 2. The documentation required under Section 8 hereof is incomplete, or
  - 3. The doctoral student has proven himself or herself unworthy of holding the title of "Doktor" through his or her conduct
- (3) <sup>1</sup>The doctorate committee shall decide on the applications submitted by doctoral students within one month. <sup>2</sup>Doctoral students shall be notified of decisions on admission to or rejection from doctoral studies and the doctoral examination process pursuant to Section 3.4 hereof. <sup>3</sup>With respect to the doctoral examination process, the chair of the doctorate committee shall strive to ensure that no more than three months pass between submission of the application for admission to the doctoral examination process and the final thesis colloquium.

### Section 10 Withdrawal from the doctoral programme

<sup>1</sup>Doctoral students may withdraw from the programme of doctoral studies at any time prior to submission of the application for admission to the doctoral examination process. <sup>2</sup>Withdrawal declarations shall be submitted in writing to the dean. <sup>3</sup>The dean shall inform the supervisors and afford them a two-week period in which to respond to the request. <sup>4</sup>The supervision agreement shall be regarded as rescinded once the dean has confirmed the declaration following passage of the two-week period.

### Section 11 Doctoral thesis

- (1) <sup>1</sup>The doctoral thesis shall be the product of the doctoral student's independent academic research and contribute to solving a problem in the area of scientific research. <sup>2</sup>It should present new academic findings. <sup>3</sup>The results achieved shall be presented in a suitable form.
- (2) <sup>1</sup>The doctoral thesis shall be signed and submitted in typescript; it shall also be bound, paginated and contain a table of contents as well as an abstract that describes the research question and the findings obtained. <sup>2</sup>All literature or other sources used shall be disclosed in full; any wording that is a direct or near-direct quote shall be indicated as such. <sup>3</sup>The information on the title page shall match the sample available at the Office of the Dean. <sup>4</sup>The doctoral thesis shall additionally be submitted electronically in a form that is to be agreed with the dean; this shall enable review by faculty members who are eligible to administer examinations. <sup>5</sup>This review shall comply with the author's copyright and privacy rights.
- (3) If a research paper that has already been published is submitted as a dissertation, the relevant number of author's copies of the printed work may be submitted in lieu of typewritten copies.
- (4) If submitting a thesis by published works, an extended abstract shall be submitted along with the published works to explain the links between the submitted publications and the author's own contribution. The decision as to whether a cumulative dissertation appears suitable is made by the doctorate committee.
- (5) The doctoral thesis shall be written in either German or English.

### Section 12 Evaluation of the thesis

(1) <sup>1</sup>After admission to the doctoral examination process, the doctorate committee shall immediately appoint as assessors at least two members of teaching staff who are eligible to administer examinations to evaluate the doctoral thesis; at least one of these staff members shall be a professor at the Faculty of Mathematics, Physics and Computer Science per the definition of Article 2(1)(1) Bavarian Higher Education Employment Act (BayHSchPG). <sup>2</sup>When doctoral studies are pursued in cooperation with a university of applied sciences (Fachhochschulen/HAW; Section 19 hereof), the standard procedure shall be to appoint as assessors the two supervisors, one from the university of applied sciences and one from the university, each with equal rights. (2) <sup>1</sup>Each of the assessors shall submit his or her written opinion on the thesis within a reasonable period of time of no more than two months and recommend acceptance or rejection of the doctoral thesis. <sup>2</sup>Each assessor shall assess the doctoral thesis and grade it in accordance with the following scale:

Very good	= 1 =	a work worthy of special recognition		
Good	= 2 =	an above-average work		
Satisfactory	= 3 =	a work meeting the average requirements		
Insufficient	= 4 =	a work exhibiting significant shortcomings, of no use overall		
<sup>3</sup> Intermediate grades of 1.5 and 2.5 may be given.				

<sup>4</sup>Special cases may warrant a grade of Excellent = an absolutely outstanding achievement.

<sup>5</sup>Grades of "excellent" shall carry a numerical value of 0.

- (3) <sup>1</sup>The doctorate committee shall appoint an additional assessor if the awarded grades differ from each other by more than one full grade. <sup>2</sup>The same shall apply if an assessor suggests appointing an additional assessor. <sup>3</sup>If a doctoral thesis earns a grade of "excellent" or is assessed by multiple supervisors, the doctorate committee shall appoint an additional assessor; if the awarded grade is "excellent", the assessor shall be external.
- (4) The doctorate committee may, at any time throughout the process, also opt to appoint additional assessors where it considers them necessary to ensure fair evaluation of the doctoral thesis.
- (5) <sup>1</sup>The dean shall notify the members of the extended doctorate committee, in a suitable manner, of receipt of the evaluations and the grades issued by the assessors. <sup>2</sup>The abstract of the doctoral thesis shall be sent with the notification, along with an electronic copy of the thesis if requested; copyright and privacy rights shall be respected. <sup>3</sup>The dean shall make the assessors' reports available for inspection by the members of the extended doctorate committee for two weeks in the Office of the Dean. <sup>4</sup>Members may submit a written opinion or request a meeting of the extended doctorate committee. <sup>5</sup>The extended doctorate committee may request additional evaluations of the thesis. <sup>6</sup>To assess the doctoral thesis, the arithmetic mean of the individual grades awarded shall be calculated, and any digits following the first decimal digit of the resulting figure shall be disregarded. <sup>7</sup>Theses shall be accepted where they are awarded at least "satisfactory" (3.0), otherwise they shall be rejected. <sup>8</sup>Section 3.4 hereof shall apply accordingly.

- (6) <sup>1</sup>If the doctoral thesis is rejected, the doctoral student may submit a new thesis within one year of the announcement of the rejection. <sup>2</sup>Section 12.1 to 12.5 shall govern the subsequent procedures. <sup>3</sup>If the doctoral student does not submit a new thesis within the period specified in sentence 1 above or if the new thesis is rejected, the doctoral examination process shall be terminated without success; Section 9.3 sentence 2 shall apply accordingly.
- (7) <sup>1</sup>The extended doctorate committee may return a thesis to the applicant for revision instead of rejecting it. <sup>2</sup>In this case, the doctoral student may submit a new thesis instead of undertaking the revision. <sup>3</sup>Revised or rewritten theses shall be submitted to the doctorate committee by the deadline specified in Section 12.6 sentence 1. <sup>4</sup>Revised theses shall be assessed by the assessors appointed for the original thesis, provided they are still available; Section 12.1 to 12.5 shall otherwise remain applicable. <sup>5</sup>If the doctoral student does not submit a revised or new thesis by the time specified, or if the revised or new thesis is also rejected, the doctoral examination process shall be terminated without success. <sup>6</sup>Section 9.3 sentence 2 hereof shall apply accordingly.
- (8) <sup>1</sup>If the assessors or members of the extended doctorate committee find shortcomings in the thesis, though not shortcomings severe enough to justify rejecting the work, the doctoral student may be requested to make corresponding corrections. <sup>2</sup>When the required copies of the thesis are submitted, the chair of the board of examiners shall confirm that the corrections have been made.

### Section 13 Board of examiners

- (1) <sup>1</sup>Within a reasonable period after acceptance of the thesis pursuant to Section 12.5 sentence 7 of these regulations, a "viva voce" thesis colloquium (Section 14 hereof) shall be held before the board of examiners. <sup>2</sup>The board of examiners shall be made up of the following individuals:
  - 1. A professor, within the meaning of Article 2(1)(1) of the Bavarian Higher Education Employment Act, at the Faculty of Mathematics, Physics and Computer Science, who may not be an assessor; this individual shall act as chair
  - 2. The assessors
  - 3. An additional lecturer entitled to administer examinations per Section 2 hereof

<sup>3</sup>If an assessor within the meaning of Section 13.1.2 above is prevented from taking part in the further process and this results in fewer than two assessors being involved, a lecturer entitled to administer examinations per Section 2 hereof shall be appointed as a member of the board of examiners to replace this assessor.

(2) The chairperson and the other members of the board of examiners are appointed by the dean on the recommendation of the doctorate committee and immediately after admission to the doctoral examination procedure.

#### Section 14 Thesis colloquium

- (1) <sup>1</sup>The thesis colloquium shall be an individual examination conducted in a cooperative atmosphere. <sup>2</sup>It shall be an academic defence in which doctoral students prove that they possess deep knowledge of the discipline in which the thesis is based.
- (2) <sup>1</sup>The date of the thesis colloquium shall be set by the dean in consultation with the chair of examiners. <sup>2</sup>The doctoral student and members of the board of examiners shall be invited to the thesis colloquium in writing at least 14 days in advance. <sup>3</sup>The doctorate committee may specify a shorter period in consultation with the doctoral student.
- (3) <sup>1</sup>The thesis colloquium shall last for no fewer than 60 and no more than 120 minutes and be open to the entire university. <sup>2</sup>It shall be conducted in either German or English. <sup>3</sup>The thesis colloquium shall be divided into a presentation on the thesis and an academic defence. <sup>4</sup>Media shall be used appropriately. <sup>5</sup>The colloquium shall be headed by the chair of the board of examiners. <sup>6</sup>In addition to the members of the board of examiners, all lecturers entitled to administer examinations within the meaning of Section 2 hereof shall be invited to attend the thesis colloquium. <sup>7</sup>The chair may permit questions from the teaching staff who are present and entitled to administer examinations; the chair shall ensure that members of the board of examiners have a sufficient share of the examination time.
- (4) <sup>1</sup>The thesis colloquium shall be graded on the basis of a joint discussion between the examiners and in accordance with the scale pursuant to Section 12.2 sentences 2 to 5 hereof. <sup>2</sup>To assess the colloquium, the arithmetic mean of the individual grades awarded shall be calculated, and any digits following the first decimal digit of the resulting figure shall be disregarded. <sup>3</sup>To pass the thesis colloquium, the doctoral student shall attain a grade of at least "satisfactory" (3.0).

- (5) <sup>1</sup>A written record of the colloquium shall be prepared in line with Section 15 hereof; it shall describe the order of events and the calculation of the final grade for the doctorate. <sup>2</sup>The record shall include the following information:
  - 1. The date of the thesis colloquium
  - 2. The names of the chair and the other examiners
  - 3. The name of the doctoral student
  - 4. The subject of the examination
  - 5. The grades awarded for the thesis and thesis colloquium as well as the final grade for the doctorate

<sup>3</sup>The written record shall be signed by the chair and the examiners.

- (6) <sup>1</sup>If the doctoral student does not pass the thesis colloquium, it may be repeated once. <sup>2</sup>Applications for repetition of a colloquium shall be submitted to the dean within one year of notification of failing the thesis colloquium. <sup>3</sup>In exceptional cases, the doctorate committee may permit a second repetition of the failed colloquium; the doctoral student shall submit any such application to the dean within six months of notification of failing the thesis colloquium a second time. <sup>4</sup>The doctoral examination process shall be terminated without success if the doctoral student does not submit an application for a repeat thesis colloquium within the periods specified in sentences 2 and 3 above, if the doctoral student fails the second repetition too; Section 9.3 sentence 2 hereof shall apply accordingly.
- (7) <sup>1</sup>If doctoral students do not appear at their thesis colloquium or withdraw from their colloquium after it has commenced, they must immediately notify the dean of the reasons for their non-appearance or withdrawal in writing and ensure that such reasons are credible. <sup>2</sup>Should doctoral students fall ill, the dean may request presentation of a medical certificate. <sup>3</sup>If the reasons for the non-appearance or withdrawal are beyond the control of those doctoral students, the dean shall set a new date in line with Section 14.2 above. <sup>4</sup>If doctoral students do not immediately notify the dean of the reasons for their non-appearance or withdrawal per sentence 1, or do not substantiate such notification, or bear responsibility for the non-appearance or withdrawal, the thesis colloquium shall be deemed failed; Section 9.3 sentence 2 hereof shall apply accordingly.

### Section 15 Final grade for the doctorate

- (1) If the doctoral student passes the thesis colloquium, the board of examiners shall calculate a final grade for the doctorate.
- (2) <sup>1</sup>The final grade for the doctorate shall be calculated as follows: first, the arithmetic mean of the grade awarded for the thesis and the grade awarded for the thesis colloquium shall be computed for each separately. <sup>2</sup>Digits following the first decimal place shall be disregarded. <sup>3</sup>Next, the figure for the thesis shall be doubled, added to the (unchanged) figure for the thesis colloquium and divided by three. <sup>4</sup>Digits following the first decimal place of the resulting total shall be disregarded. <sup>5</sup>The following assessment scale shall apply to the final grade:

		summa cum laude (with distinction)
to	1.5	magna cum laude (very good)
to	2.5	cum laude (good)
to	3.0	rite (satisfactory)
	to to to	to 1.5 to 2.5 to 3.0

- (3) The final grade shall be verbally communicated to doctoral students by the chair of the board of examiners subsequent to the thesis colloquium.
- (4) <sup>1</sup>The dean shall provide doctoral students with a temporary certificate indicating the result of their examination, if successful. <sup>2</sup>The temporary certificate does not entitle doctoral students to bear the title of "Doktor".

### Section 16 Publication of the thesis

- (1) <sup>1</sup>Doctoral students shall make their thesis available to the academic community by copying and distributing it. <sup>2</sup>Works that have already been published pursuant to Section 11.3 and 11.4 hereof need not be republished.
- (2) <sup>1</sup>For publication purposes, doctoral students shall deliver to the dean the number of copies required for the form of publication they have selected; they shall do this at no charge and within one year of issue of the temporary certificate with the result of the passed examination. <sup>2</sup>Doctoral students may choose to provide:
  - 1. 40 copies as books or photo prints for distribution purposes.
  - 2. 6 copies if the thesis is to be published in predominantly unabridged form in one or more academic journals.

- 3. 6 copies if a commercial publisher takes responsibility for commercial distribution. The publication must bear an ISBN or ISSN number and the reverse side of the title page must identify the work as a thesis and specify the thesis location.
- 4. 6 bound and printed copies and one electronic version whose file format and form of transmission shall be discussed with the University Library of the University of Bayreuth. The publication must include an abstract in German and English. Doctoral students shall affirm in writing that the electronic version matches the accepted thesis and grant the University Library of the University of Bayreuth and the German Digital Library (DDB) the right to store this version, publish it on data networks for an unlimited period of time and allow other databases to access it. Doctoral students shall be obligated to review the metadata and the electronic version of their thesis for completeness, accuracy and legibility after processing by the University Library. Submission of files that do not meet the required file format and transmission specifications shall not count as publication.
- (3) Doctoral students shall give the University of Bayreuth written permission to publish including on data networks their name, the topic of their thesis, their thesis abstract, the date of submission and the date of the thesis colloquium; if they have selected a publication type falling under Section 16.2.1 above, doctoral students shall also assign the right to produce and distribute additional copies of the thesis.
- (4) Upon request by doctoral students, the doctorate committee may extend the deadline for delivering the required copies.
- (5) <sup>1</sup>If doctoral students fail to meet the deadline for delivery of the required copies for reasons of their own fault, all rights acquired through successful completion of the examination process shall be null and void. <sup>2</sup>Section 9.3 sentence 2 hereof shall apply accordingly.
- (6) In the event of Section 16.2.2 and 16.2.3 above, the dean may consider the deadline met if publication of the thesis and delivery of the required copies appear sufficiently certain based on a binding statement from the editor of the journal or from the publisher.

#### Section 17

#### Doctoral diploma and acquisition of the doctoral degree

- (1) If the requirements of Section 16 hereof have been fulfilled, the faculty shall issue a diploma in German as documentation of having passed the doctoral examination.
- (2) <sup>1</sup>The diploma shall confirm the successful award of the doctorate and include:
  - The name of the university and faculty
  - The full name of the degree holder and his or her date and place of birth
  - The academic degree awarded
  - The title of the thesis
  - The date of the oral examination
  - The final grade for the doctorate
  - The name and signature of the President of the University of Bayreuth and the dean of the faculty
  - The University of Bayreuth seal

<sup>2</sup>The diploma date shall be the date of the thesis colloquium. <sup>3</sup>An English translation of the diploma shall additionally be issued. <sup>4</sup>In the case of doctoral studies pursued in cooperation with a university of applied sciences (Fachhochschulen/HAW; Section 19 hereof), the name of the university of applied sciences shall also be indicated.

(3) <sup>1</sup>The diploma along with its translation shall be presented by the dean. <sup>2</sup>Presentation of the diploma shall constitute completion of the doctorate; it shall give the doctoral student the right to bear the title of "Doktor".

#### Part III: Award of honorary doctoral degrees

#### Section 18 Award of honorary doctoral degrees

- (1) <sup>1</sup>The process of conferring an honorary doctoral degree shall be initiated upon submission of a substantiated proposal by at least three professors, within the meaning of Article 2(1)(1) of the Bavarian Higher Education Employment Act (BayHSchPG), at the Faculty of Mathematics, Physics and Computer Science. <sup>2</sup>The proposal shall be submitted in writing to the dean.
- (2) <sup>1</sup>The faculty council shall appoint from the Faculty of Mathematics, Physics and Computer Science at least two professors, who fall under the definition of Article 2(1)(1) of the Bavarian Higher Education Employment Act (BayHSchPG) and are responsible for their academic disciplines, to evaluate the scientific and academic achievements attained by the individual to be honoured. <sup>2</sup>When these evaluations have been made available, the dean shall forward the proposal and evaluations to the members of the faculty council and all teaching staff with eligibility to administer examinations. <sup>3</sup>These persons may submit a written opinion within one month of receiving the documents specified in sentence 2 above.
- (3) <sup>1</sup>The faculty council shall decide on whether to award honorary doctoral degrees. <sup>2</sup>Decisions of the faculty council shall require a proposal from the extended doctorate committee. <sup>3</sup>They shall be made by considering the professors' evaluations, any opinions submitted per Section 18.2 sentence 3 and the proposal from the extended doctorate committee.
- (4) <sup>1</sup>The University President and dean shall confer the honorary doctoral degree by presenting a diploma to the individual receiving the honour. <sup>2</sup>The diploma shall identify the scientific and academic achievement of the individual on whom the honour is bestowed.

#### Part IV: Alliances with universities of applied sciences (Fachhochschulen/HAWs)

#### Section 19

#### Alliances with universities of applied sciences (Fachhochschulen/HAWs)

<sup>1</sup>Within the framework of these doctoral degree regulations, the Faculty of Mathematics, Physics and Computer Science shall enable participation in doctoral degree programmes provided in co-operation with universities of applied sciences (Fachhochschulen/HAWs) and the award of joint doctoral degrees based on the agreement between Bavarian institutions of higher education

dated 19 October 2015. <sup>2</sup>The University of Bayreuth shall be the institution in charge where cooperative doctoral studies and the conferral of joint degrees are concerned.

#### Part V: Binational doctoral studies

### Section 20 General

- (1) <sup>1</sup>The degree of "Doktor" may also be awarded when supervision occurs in cooperation with an academic institution outside of Germany (a partner institution). <sup>2</sup>This shall require that:
  - 1. An agreement on binational, joint supervision of doctoral studies has been concluded with the partner institution and approved by the doctorate committee.
  - The partner institution is entitled to confer doctorate degrees pursuant to its national legislation and the degrees to be conferred by this institution would be recognized in the area of applicability of the German Higher Education Framework Act (Hochschulrahmengesetz – HRG).
  - 3. The doctoral student has met the requirements for admission to doctoral studies and for admission to the doctoral examination process pursuant to these doctoral degree regulations (Sections 4, 8 and 9 hereof) as well as pursuant to the relevant regulations issued by the partner institution.
- (2) <sup>1</sup>The doctoral thesis shall be supervised jointly by one supervisor pursuant to Section 7.1 hereof and one member of the partner institution entitled to administer examinations in accordance with that institution's regulations, and may be submitted to the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth or to the partner institution. <sup>2</sup>The specific terms of the joint supervision shall be governed by the agreement referred to in Section 20.1.1 above. <sup>3</sup>Any theses submitted to one of the educational institutions concerned and either accepted or rejected prior to conclusion of an agreement in accordance with Section 20.1.1 above, cannot be used for the purposes of a joint doctoral examination process.
- (3) The thesis shall be graded in accordance with the regulations of the institution to which it is submitted; the other institution shall then calculate the equivalent grades pursuant to its doctoral degree regulations.

#### Section 21

### Examination process at the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth

- (1) <sup>1</sup>Should the doctoral thesis be submitted to the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth, Sections 11 and 12 shall apply to the thesis and its evaluation. <sup>2</sup>The thesis supervisors referred to in Section 20.2 sentence 1 shall normally be appointed assessors.
- (2) <sup>1</sup>If the thesis is accepted under the process defined under Section 12 hereof, it shall be sent to the partner institution for the purpose of obtaining its consent to the continuation of the doctoral examination process. <sup>2</sup>If the partner institution gives its consent, the oral examination defined in Sections 13 and 14 hereof shall be conducted. <sup>3</sup>Unless the thesis supervisor from the partner institution is already on the board of examiners pursuant to Section 13.1.2 hereof, he or she – or alternatively, another member of the partner institution who is entitled to administer examinations under the regulations thereof – shall be appointed as a member of the board of examiners in the agreement pursuant to Section 20.1.1 hereof.
- (3) <sup>1</sup>If the thesis has been accepted by the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth, yet the partner institution does not consent to continuing the examination process, the joint process shall be terminated and the doctoral examination will continue in accordance with the provisions of these doctoral degree regulations. <sup>2</sup>Sentence 1 above shall also apply in the event the partner institution awards a fail grade for the oral examination.
- Publication of the thesis and delivery of the required copies shall be governed by Section 16 hereof in conjunction with the additional agreements concluded pursuant to Section 20.1.2.1 hereof.

# Section 22 Examination process at the partner institution

(1) <sup>1</sup>If the thesis is to be submitted to the partner institution, the examination process shall be governed by the partner institution's doctoral degree regulations. <sup>2</sup>The agreement pursuant to Section 20.1.2.1 hereof shall provide for appointing, as the assessor tasked with evaluating the thesis, the supervisor from the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth, pursuant to Section 20.2 sentence 1 hereof, or, if that person cannot be called upon, for appointment of another lecturer who is from the Faculty of Mathematics, Physics and Computer Science at the University and Computer Science at the University of Bayreuth and entitled to administer examinations under these doctoral degree regulations.

- (2) <sup>1</sup>If the thesis is accepted by the partner institution, it shall be sent to the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth to obtain its consent to continue the examination process. <sup>2</sup>Section 12.5 sentences 3 to 8 hereof shall apply accordingly. <sup>3</sup>If the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth grants this consent, the oral examination shall be held at the partner institution subject to the provisions thereof. <sup>4</sup>In this case, the agreement pursuant to Section 20.1.2.1 hereof shall stipulate that the supervisor from the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth, per Section 20.2 sentence 1 hereof, be a member of the committee hearing the oral examination as an examiner or, if that person cannot be called upon, that another lecturer who is from the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth and entitled to administer examinations under these doctoral degree regulations fulfil this role.
- (3) <sup>1</sup>If the thesis is accepted by the partner institution yet the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth does not consent to continuation of the examination process, the joint process shall be terminated. <sup>2</sup>The doctoral examination may be continued in accordance with the provisions of the partner institution. <sup>3</sup>Sentences 1 and 2 above shall apply in the event that the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth grades the oral examination as failed.
- (4) <sup>1</sup>The relevant provisions of the partner institution shall apply to publication of the thesis and delivery of the required copies. <sup>2</sup>The agreement pursuant to Section 20.1.1 hereof shall moreover stipulate the number of copies to be provided to the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth; alternatively, publication of the thesis as specified in Section 16.2.2 to 16.2.4 hereof may be approved. <sup>3</sup>In any case, one copy of the dissertation shall remain with the examination files. <sup>4</sup>Issue of the doctoral diploma to be conferred pursuant to Section 23 hereof shall require fulfilment of all delivery obligations.

### Section 23 Joint diploma

(1) <sup>1</sup>Following successful completion of a joint doctoral examination process, the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth and the partner institution shall issue a joint diploma indicating that the title of "Doktor" has been conferred in a joint supervision process. <sup>2</sup>This diploma shall bear the signatures and seals required under these doctoral degree regulations as well as those of the partner institution.

- (2) In lieu of a joint diploma, the Faculty of Mathematics, Physics and Computer Science at the University of Bayreuth and the partner institution may issue separate diplomas which clearly indicate that the two diplomas together represent a joint doctoral degree.
- (3) The joint doctoral diploma shall indicate that the degree holder is entitled to bear the title of "Doktor" in Germany pursuant to Section 1.1 hereof and to bear the equivalent doctor title awarded in the other country.
- (4) <sup>1</sup>The additional content of the diploma shall be governed by the agreement made per Section 20.1.2.1 hereof. <sup>2</sup>That agreement shall also cover grade equivalence. <sup>3</sup>The joint doctoral diploma shall specify the equivalent grade in the other country with the corresponding designation.

#### Part VI: Additional provisions, effective date and transitional provisions

# Section 24 Invalidity of the doctoral degree

- (1) Should it emerge prior to presenting the diploma that the doctoral student cheated with respect to his or doctoral studies, the doctorate committee shall declare all rights acquired thus far null and void and shall terminate the process.
- (2) <sup>1</sup>If the fraudulent or other prohibited activity is not discovered until after the diploma has been presented, the doctorate committee may retroactively declare the doctoral examination failed. <sup>2</sup>Revocation of the degree of "Doktor" shall be governed by statutory provisions (Article 48 of the Bavarian Administrative Procedures Act BayVwVfG as amended). <sup>3</sup>Prior to any such decision, the individual concerned shall be given the opportunity to respond to the allegations (Article 28 BayVwVfG). <sup>4</sup>With respect to the clarity, form and substantiation of the decision, statutory provisions regarding the effectiveness of administrative acts (Article 35 et seq. BayVwVfG) shall be observed.
- (3) <sup>1</sup>In the event of suspicion of academic misconduct, the doctorate committee shall, as a rule, await the report from the Committee for Academic Self-Regulation before making its decision. <sup>2</sup>Should, in certain cases, the doctorate committee already have taken a prior decision, it shall not impact the further investigation by the Committee for Academic Self-Regulation. <sup>3</sup>Express waiver of the right to bear the title of "Doktor" shall not affect the initiation or continuation of the process described in sentences 1 and 2 above.
- (4) If the student does not pass the doctoral examination pursuant to Section 24.2 sentence 1 above, the doctoral diploma shall be confiscated.

(5) In other respects, revocation of the title of "Doktor" shall be governed by Article 69 of the Bavarian Higher Education Act (BayHSchG) in conjunction with the relevant provisions of the Bavarian Administrative Procedures Act (BayVwVfG).

### Section 25 Right of inspection

<sup>1</sup>On receiving the certificate defined in Section 15.4 or unsuccessfully ending the doctoral examination process, doctoral students shall be able to inspect the records for their doctoral studies. <sup>2</sup>The dean shall determine the time and place of inspection. <sup>3</sup>Requests for inspection shall be made to the dean of the Faculty of Mathematics, Physics and Computer Science within one month of receipt of the temporary certificate per Section 15.4 or of unsuccessfully ending doctoral studies. <sup>4</sup>Like in other situations where inspection is requested, the procedure shall be governed by Articles 29 et seq. of the Bavarian Administrative Procedures Act (BayVwVfG).

## Section 26 Consideration of special circumstances

- (1) <sup>1</sup>Upon request, the protective rights provided in Sections 3, 4, 6 and 8 of the Protection of Mothers Act (Mutterschutzgesetz – MuSchG) of 20 June 2002 (BGBI I p. 2318), as amended, the time periods stipulated in the Parental Allowances and Parental Leave Act (Bundeselterngeld- und Elternzeitgesetz – BEEG) of 5 December 2006 (BGBI I p. 2748), as amended, and the time periods specified under Section 7(3) of the Home Care Leave Act (Pflegezeitgesetz – PflegeZG) of 28 May 2008 (BGBI I pp. 874, 896), as amended, the latter applying to the care of a close relative requiring care within the meaning of Sections 14 and 15 of Book XI German Social Code (Sozialgesetzbuch, Elftes Buch – SGB XI) of 26 May 1994 (Federal Gazette pp. 1014, 1015), as amended, shall be upheld with respect to dates and deadlines. <sup>2</sup>The relevant documentation shall be kept; any changes in requirements shall be communicated without delay.
- (2) <sup>1</sup>Upon request, time periods in which for reasons outside of the control of the doctoral student it was not possible for the doctoral student to pursue doctoral studies, or only possible to a very limited extent, shall not be counted towards deadlines. <sup>2</sup>The relevant documentation shall be kept; medical certificates must be presented in the event of illness. <sup>3</sup>Any changes in requirements shall be communicated without delay.

### Section 27 Consideration of the special needs of persons with disabilities

<sup>1</sup>The special situation of applicants or doctoral students with disabilities shall be given adequate consideration in order to ensure that those persons are afforded equal opportunity. <sup>2</sup>Upon written request by the applicant or the doctoral student, the doctorate committee shall determine the form in which applicants or doctoral students may meet their examination requirements or shall grant an extension of the period for completing their research or another type of compensation for disadvantages depending on the documented degree of inability to sit the examination. <sup>3</sup>As evidence of inability to complete the examination, applicants or doctoral students shall provide a medical certificate stating that they are either entirely or partially unable to participate in the examination in the intended manner due to a long-lasting or permanent disability. <sup>4</sup>The application for admission to doctoral studies shall be attached to this request; if the request is submitted later, it shall only apply to future requirements.

# Section 28 Effective date, transitional provisions

- (1) <sup>1</sup>These doctoral degree regulations shall take effect on 21 September 2017; simultaneously, the Doctoral Degree Regulations for the Faculty of Mathematics and Physics at the University of Bayreuth, dated 1 September 2009 (AB UBT 2009/062), as amended by the consolidated amendment by-laws dated 5 July 2011 (AB UBT 2011/032), shall become ineffective. <sup>2</sup>Doctoral studies for which theses were already submitted prior to these regulations becoming effective shall be completed in accordance with the regulations applicable at the time of thesis submission.
- (2) <sup>1</sup>With respect to applicants who had already received confirmation of supervision prior to the effective date of these doctoral degree regulations, the provisions of these regulations shall apply subject to the following:
  - 1. The confirmation of supervision shall replace the supervision agreement to be concluded in accordance with Section 4.1.3 in conjunction with Section 7 of these regulations.
  - 2. Proof of having met the requirements of Section 4.1.1, 4.1.2 and 4.1.4 hereof shall be submitted by these applicants together with the application for admission to the doctoral examination process pursuant to Section 8 hereof.

<sup>2</sup>To this end, the doctorate committee may decide in advance on applications to be submitted to the dean by applicants. <sup>3</sup>In other respects, Section 9.1 and Section 9.2.2 hereof shall apply accordingly.

\*) The set of amendments contains the following provisions with regard to entry into force:

The present regulations shall enter into force on the day after their announcement.