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**Doctoral Degree Regulations of Faculty 08: Physics,  
Mathematics, and Computer Science at Johannes  
Gutenberg University Mainz dated December 2, 2013**

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Based on Art. 7 (2) sentence 2 and Art. 86 (2) No. 3 of the University Act (HochSchG), version dated November 19, 2010 (GVBl. p. 463), most recently amended on June 18, 2013 (GVBl. p. 157) BS 223-41, the council of the Faculty of Physics, Mathematics, and Computer Science at Johannes Gutenberg University Mainz agreed to the following Doctoral Degree Regulations on November 30, 2011. These Doctoral Degree Regulations were approved by the Ministry of Education, Science, Continuing Education, and Culture of Rhineland-Palatinate in their letter dated July 8, 2013 Ref.: 977 journal No. 23/08. The regulations are herewith announced.

**I. Preamble**

The academic title of Doctor of Natural Sciences (Doctor rerum naturalium, Dr. rer. nat.) shall be awarded to candidates who have acquired academic accomplishments that, in terms of knowledge and capabilities, exceed those imparted during a main course of study at an institution of higher education. To qualify, candidates must demonstrate that they have a thorough understanding of the relevant academic discipline across its entire spectrum, that they have a general understanding of certain related academic disciplines, and that they are capable of self-reliant and independent academic work.

**II. Doctorate**

Section 1  
Doctor of Natural Sciences

The title of Doctor of Natural Sciences (Dr. rer. nat.) will be awarded by the Faculty of Physics, Mathematics, and Computer Science at Johannes Gutenberg University Mainz. Doctoral degrees may be awarded in the following fields: Physics, Didactics of Physics, Meteorology, Mathematics, Didactics of Mathematics, History of Mathematics and Natural Sciences, Computer Science, Didactics of Computer Science.

Section 2  
Doctoral Degree Requirements

Candidates must submit a written academic dissertation and attend an oral colloquium.

### **III. Boards**

#### **Section 3**

##### **Doctoral Candidate Admissions Board**

(1) The 'Doctoral Degree and Postdoctoral Lecturing Qualification Board of the Faculty' ("Promotions- und Habilitationsausschuss des Fachbereichs", abbreviated to ProHaF in the following) will be responsible for the doctoral degree program. This board shall consist of the following persons:

1. The Dean as chairperson.
2. Six other faculty members (as defined in Art. 37 (2) No. 1 of the German University Law (HochSchG)), four members of the academic personnel (as defined in Art. 37 (2) No. 3 HochSchG) and one member each from the groups stipulated in Art. 37 (2) No. 2 and 4 HochSchG.

(2) The ProHaF will be responsible for the interpretation of these Doctoral Degree Regulations as well as procedural issues. It will not be responsible for decisions relevant to the evaluation of doctoral degree achievements. The ProHaF shall be responsible for/advise on

- a) The revocation and the withdrawal of doctoral degrees in accordance with sections 35 and 37
- b) Suggested changes to the Doctoral Degree Regulations
- c) Procedural issues in connection with the award of international doctoral degrees
- d) Procedural issues in connection with the award of interdisciplinary doctoral degrees.

(3) The ProHaF will be constituted for the electoral period of the faculty council. The student members will serve a one-year term. The members per section 1 (1), No. 2 will be appointed by the faculty council from candidates nominated by the various groups.

(4) All negative decisions of the ProHaF must be supported by a written justification that must be submitted to the relevant persons. Information on the right of appeal must be enclosed with any negative decision.

#### **Section 4**

##### **Faculty Responsibilities**

The Dean shall decide on the basis of the legal requirements set out in these Doctoral Degree Regulations with regard to the admission of candidates and the doctoral degree assessment procedures and shall appoint the members of the board of examiners as defined in section 22. The ProHaF shall be informed of the admission of candidates and of the corresponding doctoral degree assessment procedures.

#### **Section 5**

##### **Compensation of disadvantages for handicapped and chronically ill doctoral candidates**

(1) The special needs of handicapped doctoral candidates must to be taken into account to ensure that they are not disadvantaged. If a doctoral candidate is able to plausibly demonstrate that they are unable to meet the requirements for the award of a doctoral degree in their stipulated form in whole or part because of long-term or persistent physical disability, the Dean shall authorize an extension to the period in which the requirements are to be met or allow the candidate to provide evidence of achievement in other form. Submission of a corresponding certificate issued by a doctor or medical officer may be required.

(2) The representative for the severely disabled at the university may be involved in the decision-making procedure of the Dean as defined in paragraph 1.

#### **IV. Admission of doctoral candidates**

##### Section 6

##### Application for admission

(1) For admission to the program, candidates for a doctoral degree must complete and submit a form to the Dean that includes:

- a) Documentation as defined in sections 7 and 8 demonstrating the academic qualifications of the candidate
- b) The preliminary working title of the dissertation and the acceptance of the candidate by the supervisor as defined in Section 9
- c) In general, a declaration by a second supervisor stating their willingness to supervise the dissertation as defined in Section 9.

(2) In addition, candidates must submit a personal statement showing whether they have obtained or tried to obtain a doctoral degree from another faculty. If this is the case, the subject of the dissertation, the faculty and date must be specified.

##### Section 7

##### Admission requirements

(1) To be admitted to the program, doctoral candidates must demonstrate that they have been awarded an academic qualification related to the subject in which they plan to obtain a doctoral degree by a German institute of higher education or equivalent institution. Accepted qualifications are:

- a) The completion of the diploma examination or the first State Examination for Teaching at Secondary Schools or the State Examination for Teaching at Vocational Schools.
- b) A Master's degree

In addition, the final grade of the qualification should be at least 'good' (gut). In certain cases, the Dean may admit applicants with lower final grades.

(2) Paragraph 1 shall apply accordingly to applicants with Master's degrees awarded by a German University of Applied Sciences.

(3) The Dean shall decide whether to recognize qualifications other than those specified in paragraph 1, foreign qualifications and qualifications differing from those specified in the admission requirements in consultation with the responsible institutes at Johannes Gutenberg University Mainz; in any case of uncertainty, the Dean shall also consult with the representatives of the subject in question. Should this be necessary, any additional study and examination qualifications that a candidate may still need to acquire in order to qualify for admission shall be defined. In case of a successful qualification specified in section 8, the admission requirements stipulated there shall apply.

(4) Applicants who do not hold a university entrance qualification awarded by a German or an English-language educational institute or a degree from a German or English-language degree program will need to demonstrate that they have sufficient English or German language skills before they can be admitted as doctoral candidates. Their language skills must meet the following requirements:

- a) Proficiency in the German language equivalent to level DSH-2 of the 'German Language Proficiency Examination for Admission to Higher Education for Foreign Applicants (DSH)' in accordance with the Ordinance governing the German Language Proficiency Examination for Admission to Higher Education for Foreign Applicants (DSH) at Johannes Gutenberg University Mainz or
- b) Proficiency in the English language equivalent to a minimum score of 250 points (adapted computer-based test) or 600 (standard paper-based test) in the Test of English as a Foreign Language (TOEFL) or an equivalent.

## Section 8

### Admission of applicants with a

#### Bachelor's degree or diploma certificate awarded by a University of Applied Sciences

(1) In place of the qualifications stipulated in section 7 (1), a Bachelor's degree awarded by a university or a diploma awarded by a University of Applied Sciences in Germany in a subject related to that of the doctoral degree program may be accepted if the candidate is clearly among the best performers in the specific subject. This shall be considered to be the case if the qualification has been graded 'Very Good' (sehr gut) or the applicant was among the top 10% of their year in their subject, or an equivalent criterion is met.

(2) The requirement for the admission of an applicant per (1) above as a doctoral candidate is:

- a) Acceptance as a doctoral candidate by two authorized examiners as defined in section 22 (1), who work as independent academics at the Faculty of Physics, Mathematics and Computer Science; these two examiners must confirm the suitability of the candidate for admission to the doctoral degree program in the relevant field with a letter of recommendation.
- b) Such candidates will be admitted on the proviso that, during the doctoral degree program:
  - aa) They complete courses specified by the Dean that are equivalent to 45 ECTS credits in accordance with the examination regulations for the degree program at the relevant university
  - bb) They submit a written academic paper equivalent to 15 ECTS credits that conforms to the regulations for the Master's thesis and to examination regulations of the university specified by the Dean that are relevant to the selected doctoral degree subject. The subject must be set by the supervisor or the second supervisor; preparation time, in deviation from the specified examination regulations, shall be three months. This thesis may serve as the basis for the subsequent dissertation.
  - cc) Within 12 months, they successfully complete the courses specified in aa) and are in the top 10% for their year in the courses attended, and the paper specified in bb) is positively assessed by the supervisor or second supervisor.

(3) Should a candidate fail to meet the requirements listed in 2 b) cc), their status as a doctoral candidate shall be rescinded. Under special circumstances, particularly in the case of illness, a handicap, the need to care for an invalid or other reasons beyond the candidate's control (such as pregnancy or childcare), the Dean may extend the period specified in 2 b) cc). The achievements may be credited to a Master's degree program if equivalent.

(4) In general, the other entrance requirements specified in sections 6, 9, 10 and 11 shall also apply.

## Section 9 Coordination of dissertation, supervisors

(1) In general, applicants will draft the preliminary working title in consultation with a professor of the faculty or other authorized examiner as defined in section 22 (1), who also works as an independent academic at the Faculty of Physics, Mathematics and Computer Science. These persons are called 'supervisors' in the following. The purpose of supervisors is to provide support to their doctoral candidates. If a candidate so wishes, the Dean may appoint a second supervisor for the dissertation project from the group of persons defined in section 22 (1).

(2) Applicants who are unable to draft a preliminary title using this procedure may submit a request to the Dean to appoint a supervisor.

(3) The topic for the dissertation should be formulated so that it can be completed within three years under the actually obtaining conditions.

(4) The ProHaF shall decide whether and to what extent professors, professors emeritus and honorary professors may participate in the selection of a dissertation topic following consultation with the professors of the relevant faculty.

(5) If the topic is approved by a supervisor who is not a faculty member, a professor of the faculty must also act as supervisor (second supervisor). If the topic is approved by a research associate (as defined in Art. 56 (1) 4 HochSchG), the special rules defined in section 7 shall apply.

(6) Doctoral candidates are to undertake research work at an institute of Johannes Gutenberg University. In exceptional circumstances, the ProHaF may authorize completion of the dissertation outside these institutes following consultation with the professors of the relevant faculty. In general, the dissertation may also be completed at the institutions listed in Annex 1.

(7) Heads of junior research groups who do not hold a postdoctoral lecturing qualification and whose group is funded by a program that employs a selection process and external assessment may act as reviewers and examiners in the assessment procedure if they hold the qualification that is the subject of the doctoral degree assessment procedure or its equivalent. In this case, a total of three assessments of the dissertation per section 16 (1) are required, one of which must be prepared by an external reviewer. The heads of junior research groups in the Emmy Noether Program of the GRC, heads of Helmholtz junior research group and heads of junior research group who have been awarded the Sofja Kovalevskaja Prize by the Humboldt Foundation meet this requirement. The ProHaF will decide whether other such persons from other programs can act as supervisors/reviewers following appearance of the person before the ProHaF where appropriate. A faculty professor (second supervisor) will jointly advise a doctoral candidate together with the head of a junior research group in consultation with the doctoral candidate. The faculty professor shall generally write the second review.

(8) Faculty members of universities of applied sciences may also be appointed to act as supervisors. The stipulations of (7) shall apply appropriately.

## Section 10 Acceptance as a doctoral candidate

(1) Following a review of the submitted documentation, the Dean shall decide whether to accept a doctoral candidate based on the legal requirements stipulated in these Doctoral Degree Regulations. The ProHaF shall be informed of the decision. Candidates shall be informed of the result of their application for admission to the doctoral degree program and will be informed of the name(s) of their supervisor/second supervisor. If an application is unsuccessful, reasons for this must be provided.

(2) Following acceptance of an applicant as a doctoral candidate, the faculty automatically undertakes to subsequently review the dissertation.

#### Section 11 Doctoral studies phase

(1) Doctoral candidates are to be enrolled in accordance with the regulations of the University Act for the State of Rhineland Palatinate and the Enrollment Ordinance of Mainz University.

(2) If an advisor leaves the staff of Johannes Gutenberg University after a relevant doctoral candidate has been accepted, he/she may, as a rule, continue to act as a supervisor in the doctoral degree assessment procedure for up to four semesters after their departure. Extensions of this period must be approved by the ProHaF.

(3) If a supervisor becomes unable or unwilling to undertake the relevant duties or if the period of four semesters as specified in (2) is exceeded and no extension is granted, the Dean will appoint a new supervisor on the basis of suggestions made by the doctoral candidate. Such suggestions will not constitute the right to have a certain person appointed as supervisor. The Dean shall appoint the members of the board of examiners in accordance with section 22.

(4) Sections 2 and 3 apply accordingly to second supervisors.

(5) Doctoral candidates are advised to take advantage of the support provided by the General Postgraduate Program at Johannes Gutenberg University Mainz.

### **V. Admission to the doctoral degree assessment procedure**

#### Section 12 Application

(1) The procedure commences with the submission of the application to be accepted as doctoral degree candidate.

(2) The application for admission must be submitted in written form using the form provided and directed to the faculty and personally to the Dean.

The application must show the title of the written dissertation and must propose the members of the board of examiners as defined in section 22 (2).

(3) The following must be submitted with the application:

- a) A curriculum vita with a photograph of the applicant; this, in addition to the standard information, should state the candidate's educational qualifications, nationality and address
- b) A copy of the certification of admission as a doctoral candidate
- c) Four copies of the dissertation written in English or German; these must be bound with title page (see Annex II), pagination, an abstract, a list of references and a CV of the author (if the dissertation has already been published in whole or part, the same number of copies of these publications will also be required)
- d) An abstract signed by the supervisor; this should be restricted to a DIN A4 page and 5,000 characters at most in German and English together with an electronic version. If the dissertation is written in English, a German abstract may not be required.
- e) A signed statement submitted using the form designed for this purpose:

- aa) stating that the applicant wrote the dissertation personally using only the sources and aids cited and that the candidate is aware of the stipulations for the safeguarding of good academic practice in research and teaching and the consequences of academic misconduct.
- bb) specifying whether the dissertation has already been submitted as part of another qualification
- cc) stating whether the same work or parts thereof have been submitted in a form other than a dissertation to another faculty
- f) If the candidate is required to meet conditions as specified in section 7, (3) 2 or section 8 (2) b), they must also submit their study records or similar evidence and if necessary certificates showing completion of courses, practical courses or seminars.
- g) A receipt of payment of the doctoral fee.

Section 13  
Doctoral fee

The doctoral fee is determined by the local state regulations.

Section 14  
Admission to the doctoral degree assessment procedure

- (1) The Dean will review the submitted documentation to ensure this complies with the legal requirements of these Doctoral Degree Regulations; if admission is granted, the Dean shall also appoint the dissertation reviewers.
- (2) The Dean shall inform the doctoral candidate and the supervisor of the outcome of the review. Where admission is not granted, justification for this must be provided.
- (3) Candidates may only withdraw their application for admission to the procedure before the dissertation has been submitted to the reviewers. The ProHaF must also be informed.

**VI. The dissertation**

Section 15  
Dissertation requirements

- (1) The dissertation must be written independently by the candidate and must conform to the academic standards of the field. It should contain new academic insights that justify its publication.
- (2) If several candidates jointly work on a specific academic project (team work), each individual doctoral candidate must submit their personal contribution to the research project and explain its academic relevance in the form of a dissertation. Each individual's contribution to the project must be clearly defined.
- (3) Candidates may not submit a dissertation which was already accepted as a dissertation by another faculty or department or was returned as inadequate by another faculty or department. In any of these cases, the application for admission to the doctoral degree assessment procedure will be refused.

Section 16  
Reviewers of the dissertation

- (1) As soon as a doctoral candidate has been admitted to the doctoral degree assessment procedure, the Dean shall appoint as a rule two (but no less than two) reviewers for the

dissertation. If a supervisory relationship has been established as defined in section 9 (1), the supervisor shall also act as one of the reviewers; the same applies in the case of section 9 (5). At least one of the reviewers must be a faculty member as defined in Art. 46 HochSchG. Where section 9 (7) applies, it will be necessary to appoint three reviewers, one of whom must be external.

(2) The doctoral candidate can propose a subject representative as reviewer with that person's prior approval. Justification for the proposal must be provided.

(3) Before the date for the colloquium has been set and in justified cases or at the request of the doctoral candidate, the Dean may retroactively appoint an additional or alternative reviewer. The ProHaF must be informed.

(4) The Dean is to submit a copy of the dissertation to each reviewer.

### Section 17 Review of the dissertation

(1) The reviewers shall submit a reasoned review to the Dean within six weeks of submission of the dissertation and shall recommend the acceptance or rejection of the dissertation as well as a grade in the event of acceptance in accordance with section 18 (6) 2; where appropriate, reviewers may recommend revision or amendments to the dissertation in accordance with section 19.

(2) Should the reviews deviate from each other with regard to the proposal for acceptance or rejection of the dissertation, the Dean shall then appoint at least one further external reviewer; the stipulations of (1) shall apply. After submission of this review or reviews, the Dean shall conclude the dissertation has been accepted if more than half the reviewers and no less than two reviewers recommend acceptance and shall calculate the grade for the dissertation in accordance with section 18 (6). The Dean shall evaluate the recommendation of a rejection of the dissertation if at least half the supervisors recommend rejection.

(3) Should the best and worst grades recommended in the reviews deviate by more than an entire grade although acceptance of the dissertation is recommended, the Dean shall appoint at least one other external reviewer; the stipulations of (1) shall apply. On receipt of this review or reviews, the Dean shall calculate the grade in accordance with section 18 (6).

(4) If all reviewers suggest the grade "Excellent", the Dean shall obtain a further external review in accordance with section 17 (4). The stipulations of (1) shall apply accordingly. On receipt of this review or reviews, the Dean shall calculate the grade in accordance with section 18 (6).

(5) The additional reviewers as defined in (2) to (4) shall be informed of the recommendations for acceptance or rejection as well the grades proposed in the other reviews submitted.

(6) The reviewers have the right to use electronic media in order to analyze the dissertation for evidence of plagiarism. For this purpose, they may request submission of an electronic version of the dissertation from the author within a reasonable period. If the author fails to comply with this request, the reviewers have the right to propose rejection of the dissertation. If the dissertation is not submitted in the form defined in section 12 (3) e) aa), it may not be graded as adequate.

### Section 18 Acceptance procedures, evaluation of the written doctoral requirements

(1) If all supervisors recommend acceptance or, in the event of section 17 (2), the Dean recommends acceptance, the Dean shall make the dissertation available for perusal by faculty members for fourteen days.

(2) The reviews are also to be made available in the same time period to the members of the faculty council, of the ProHaF, to faculty members as defined in Art. 46 HochSchG and to faculty members with a postdoctoral lecturing qualification. For time reasons, additional reviews produced in accordance with section 17 (4) need not be made public if the additional reviewer(s) have already disclosed their grade(s) to the Dean but have not yet submitted the final version of their review(s) in writing.

(3) Candidates may contact the Dean in writing to appeal against the dissertation review or the assessment procedure as a whole before the end of the period in which the dissertation is to be made available to faculty members and members with postdoctoral lecturing qualifications. The ProHaF shall decide on all appeals that relate to the doctoral degree regulations and other procedural issues and on the subsequent rejection or necessary revision of the dissertation. In the case of appeals relating to the assessment of requirements, the Dean is to obtain at least one further review. The procedures in sections 17 (3), 19 and 20 shall be followed.

(4) The dissertation shall be considered accepted if this is recommended as specified in (1) and any appeal per (3) does not result in its rejection; and there are no requirements for changes or amendments as stipulated in section 19 (1).

(5) If the dissertation is accepted, the Dean will notify the doctoral candidate at their request of the grade proposed by the supervisors.

(6) The grade of the written dissertation is to be calculated as the arithmetic average of the individual grades or intermediate grades; should the grade be precisely between two grades, the dissertation will be awarded the better grade. The following grades are to be used if a dissertation is accepted:

"Excellent" (intermediate grade 0.7)

"Very Good" (grade 1.0 or intermediate grades 1.3 or 1.5)

"Good" (grade 2.0 or intermediate grades 1.7 or 2.3 or 2.5)

"Adequate" (grade 3.0 or intermediate grade 2.7).

The following is to be taken into account:

- a) The grade "Excellent" (intermediate grade 0.7) can only be awarded if all supervisors propose the grade "Excellent" for the dissertation.
- b) Should a case in accordance with section 17 (2) occur, the best grade that can be awarded to the dissertation is "Very Good".
- c) If a supervisor recommends the rejection of a dissertation, this review must be weighted as a grade of 4.0 in the calculation of the overall grade if the dissertation is accepted.

The Dean is to use the above rules to calculate the grade for the dissertation prior to the oral colloquium.

#### Section 19 Revision of the dissertation

(1) The dissertation may be returned once for revision if it contains serious deficiencies that can be resolved.

(2) In consultation with the reviewers, the Dean will set an appropriate deadline for the revision of the dissertation. This deadline may be extended once only if exceptional circumstances intervene. If the doctoral candidate fails to resubmit the dissertation by deadline, it will then be rejected.

(3) If a revised dissertation is submitted by the deadline, the reviews shall decide whether the dissertation is to be accepted or rejected. Section 17 (2) and (3) shall be apply appropriately.

## Section 20 Rejection of the dissertation

(1) Should the ProHaF reject the dissertation for formal reasons or should all the reviewers or, in case of section 17 (2), the Dean recommend rejection of the dissertation, the Dean shall then inform the doctoral candidate, the members of the faculty council, the ProHaF, the faculty members and members with postdoctoral lecturing qualifications of its rejection, stating the dissertation will be available for perusal for four weeks in the Dean's office.

(2) The rejection of the dissertation will be considered final if none of the faculty members and members with postdoctoral lecturing qualifications object to the rejection of the dissertation and provide reasons for their objection.

(3) If an objection is raised against rejection in accordance with (2), the ProHaF shall decide upon the acceptance or rejection of the dissertation assuming that this is in keeping with the doctoral degree regulations as well as all procedural issues. The reviewers shall decide on all objections relating to the assessment of doctoral requirements. Decisions must be justified in a statement. The decision must be unanimous and a new review from each reviewer must be provided. If reviews are not unanimous in rejecting the dissertation, the Dean shall obtain two additional reviews, if necessary from external supervisors; these reviews shall take into account the previous reviews. Should the new reviews unanimously recommend accepting the dissertation, the Dean shall again make available the dissertation for perusal per section 18 (1) and calculate the grade for the dissertation using the proposed grades from both review procedures per section 19 (6). Otherwise, objections shall be considered as having been rejected

## Section 21 Consequences of rejection

(1) If a dissertation is rejected, the doctoral degree assessment procedure will terminate at this point: the grade will be "Failed".

(2) The Dean will notify the faculty council, the ProHaF and the doctoral candidate of the reviews in writing.

(3) A rejected dissertation along with all reviews shall remain on file in the faculty Dean's office. The doctoral fee will not be reimbursed.

(4) The doctoral degree assessment procedure can be repeated by means of submission of a new dissertation that differs significantly from the rejected dissertation.

## **VII. Oral examination**

### Section 22 Examiners and board of examiners

(1) After the dissertation has been accepted, the Dean shall convene the board of examiners in accordance with (2) for the oral examination and shall set a date and time in consultation with the members of the board of examiners and the doctoral candidate. Professors, junior professors, faculty members, adjunct professors, associate professors and those holding a postdoctoral lecturing qualification may act as examiners. The requirement is that they must regularly teach at a university. The faculty council may decide to allow professors emeritus, retired professors and honorary professors of Johannes Gutenberg University Mainz as well as research associates as defined in Art. 56 (1) 4 HochSchG to act as examiners for doctoral candidates they are supervising in the justified individual circumstances defined in section 9

(7). Research associates and employees defined in Art. 56 (1) 4 HochSchG must hold a doctoral degree or its equivalent.

(2) The board of examiners shall consist of:

- a) Five persons, including the chairperson; in justified cases the Dean may allow for exceptions; four persons however is the absolute minimum. The board shall be constituted as follows: one reviewer, two other examiners from the faculty (as defined in 1), of whom one at least should be the secondary supervisor, together with a fourth examiner in accordance with 1, whose field of work is closely associated with the dissertation subject.
- b) The Dean shall appoint the chairperson of the board. The chairperson must be a faculty member and may not be one of the reviewers of the dissertation.
- c) The Dean may also appoint additional examiners, particularly for inter-university doctoral degree assessment procedures involving German and foreign universities or equivalent institutes of higher education. These examiners must have the same or equivalent qualifications to those specified in (1).

(3) In the case of international doctoral degree assessment procedures, the faculty members of both universities must be involved in the assessment of the written and oral doctoral requirements. Exceptions from (2) are permitted, whereby the examiners need to hold a doctoral degree or an equivalent qualification. Cooperation agreements will govern further details.

(4) The Dean will appoint a keeper of the minutes who must hold a doctoral degree in the relevant subject per (1).

### Section 23 Colloquium

(1) The oral examination takes the form of a colloquium. In the colloquium, the doctoral candidate is to give a 30 minute presentation on their dissertation and then subsequently defend the dissertation in a disputation with the board lasting 30 - 60 minutes. The chairperson may also allow questions from doctoral degree holders in the auditorium. The doctoral candidate may request that the colloquium is held in English; international doctoral degree assessment procedures may also be held in the language of the partner country if the colloquium is held there. The disputation should extend beyond the scope of the dissertation. The colloquium must take place within six months of the availability period of the dissertation as specified in section 18 (1).

(2) Faculty members, members of institutions with a clear affiliation with the subject as well as guests of the doctoral candidate may attend the colloquium. If so requested by the doctoral candidate or if this is necessary to ensure orderly completion of the colloquium, the Dean or the chairperson may exclude the public entirely or in part.

(3) The keeper of the minutes shall record the minutes, which shall then be signed by the members of the board of examiners. The minutes must record the major features and the result of the colloquium. The minutes may not be taken in electronic form.

(4) At the request of the doctoral candidate the Gender Equality Representative for the faculty can take part in the colloquium.

(5) In the event of particularly urgent cases where the candidate needs to take up a professional post by a certain date, the colloquium may be held before the end of the availability period or before all reviews have been received at the justified written request of the doctoral candidate. The Dean shall decide whether such a request shall be approved. In the event of the rejection of the dissertation, the result of the colloquium will be null and void.

## § 24

### Evaluation of the oral examination

(1) After the colloquium, the board of examiners shall hold a closed session to decide whether the result of the oral examination meets requirements and shall also set the oral grade. The board of examiners shall decide whether the keeper of minutes shall be present during the evaluation of the oral examination and overall evaluation.

(2) If the oral examination is passed, the following grades are to be awarded:

"Excellent" (intermediate grade 0.7)

"Very Good" (grade 1.0 or intermediate grades 1.3 or 1.5)

"Good" (grade 2.0 or intermediate grades 1.7 or 2.3 or 2.5)

"Adequate" (grade 3.0 or intermediate grade 2.7).

Should there be any disagreement among the examiners, a compromise should first be sought; if no compromise can be found, the arithmetic average shall be awarded; if this is precisely between two grades, the better grade shall be awarded. An "Insufficient" performance will be awarded grade 4.0.

(3) The grade "Excellent" may only be awarded in the oral examination for a truly outstanding performance. All members of the board of examiners must agree to award this grade.

(4) The grade "Very Good" may only be awarded if all members of the board of examiners agree or no more than one member disagrees.

(5) The oral examination shall be considered to have been failed if at least two members in accordance with section 22 (2) or (3) evaluate the performance as "Insufficient".

(6) The examiners shall inform the doctoral candidate of the result of the oral examination after the examination.

## Section 25

### Absence from the oral examination

If the doctoral candidate fails to attend the oral examination, the candidate shall be considered to have failed the examination. If the candidate was unable to attend for a justified reason, the Dean shall arrange a new date. The examination will not count as a repeat.

## Section 26

### Retaking the oral examination, consequences of failure to pass

(1) If the oral exam is failed, then it may be repeated once. The repeat examination can be held again within three months at the earliest and must be repeated within one year of the date of the initial examination. The repeat examination shall have the same duration and subject matter as the original examination. The rules in sections 22 - 25 shall apply accordingly; however the grade "Excellent" may not be awarded for a repeat examination.

(2) The chairperson of the board of examiners shall notify the doctoral candidate of the reasons for failing the exam within one month and shall suggest a date for repeating the examination.

(3) Candidates must submit an application to the Dean to take a repeat oral examination within three months after the failure of the first examination; to be enclosed with this application is the notification of failure of the first attempt.

(4) If one or more of the examiners leave the teaching body at Johannes Gutenberg University prior to the repeat examination, section 11 (2) shall apply accordingly.

(5) If the doctoral candidate waives the right to a repeat examination in writing, such a waiver shall be considered irrevocable.

(6) Should the request for a repeat examination not be submitted by deadline, the repeat examination be failed or the right to a repeat examination be waived, then the final grade for the doctoral degree assessment procedure shall be "Failed". Section 21 (3) shall apply accordingly.

## **VIII. Successful completion of the doctoral degree assessment procedure**

### Section 27 Overall grade

(1) In closed session, the board of examiners shall calculate an overall grade for the doctoral examination in accordance with the stipulations in these Doctoral Degree Regulations. This overall grade shall be calculated from the grade for the dissertation and the oral examination; these shall be weighted 2:1. The following are to be used:

Summa cum laude ("mit Auszeichnung bestanden"); to be awarded for the intermediate grade 0.7.

Magna cum laude ("mit Auszeichnung bestanden"), for grade 1.0 or intermediate grades of 1.3 or 1.5

Cum laude ("mit gut bestanden"); for grade 2.0 or intermediate grades of 1.7 or 2.3 or 2.5

Rite ("bestanden") for grade 3.0 or an intermediate grade of 2.7.

(2) To be graduated summa cum laude, a candidate must have been awarded the grade "Excellent" for both the dissertation and the oral examination.

(3) After acceptance of the dissertation in accordance with section 18 (4) and successful completion of the doctoral examination, the doctoral candidate shall be issued a form by the Dean certifying that they have passed the doctoral examination. This intermediate notification does not give the candidate the right to use the doctor title.

(4) The grades of the oral and written doctoral requirements in German as well as the overall grades in German and Latin will be shown in the doctoral certificate.

### Section 28

#### Dissertation publication

(1) The doctoral candidate is obligated to appropriately provide the academic public with access to the dissertation in a suitable manner by means of reproduction and distribution as specified in section 29. The board of examiners may recommend changes.

(2) In special cases, the Dean may extend the delivery date for the mandatory copies by up to one year at the request of a doctoral candidate. Such a request needs to be submitted prior to the end of the initial deadline and needs to be justified in writing; the request must include a written confirmation provided by a publisher that the dissertation is to be printed. Please also see section 30 (2). If there is failure to comply with the requirements of (1) and (2), the ProHaF shall decide how to proceed.

(3) With the approval of the supervisor, parts of the dissertation may be published in academic journals before completion of the doctoral degree assessment procedure. Such a publication shall not be considered as a dissertation.

Section 29  
Form and number of the mandatory copies

(1) The dissertation shall be considered to be suitably accessible for the academic public if, in addition to the copies for the registrar's files, four printed archive copies of the dissertation are provided free of charge to the University Library on age-resistant acid-free pulp paper and its distribution is provided for by means of the following:

- a) Submission of an electronic version with pagination identical to the print version. The data format and form of data carrier will be specified by the University Library. The dissertation is to be uploaded to the publication server of the University Library in accordance with their instructions together with an abstract in German and English of no more than 200 words, or
- b) Evidence of a minimum publication run of 150 copies if the dissertation is to be distributed through the book trade, or
- c) Evidence of proof of publication in a journal, or
- d) The provision of four other reproductions in book form or as photocopies.

(2) In cases a) and d), the doctoral candidate shall transfer to the University Library of Johannes Gutenberg University Mainz the right to create and distribute additional copies and to upload copies, permanently and without restrictions, to data networks and to make these freely available there. In cases b) and c), the volume must include the code "D77" (on the back of the title page or in a footnote) so that it is identified as a dissertation of Mainz University. In such cases, the doctoral candidate retains the right to also upload the dissertation to the University Library publication server under the conditions listed above. A delay may be observed between the upload and release of the dissertation if this required by third-party sponsors or for patent protection purposes. In case d), the University Library is obligated to archive the copies for four years.

(3) Doctoral candidates are to provide the mandatory copies in the following form: The recto of the title page shall use the format shown in Annex II; on the verso is to appear the names of the reviewers who recommended acceptance of the dissertation, as well as the date of the oral examination; the submitted curriculum vitae shall be placed at the end of the dissertation until the time of publication.

(4) If the dissertation is published as a stand-alone book outside a dissertation series by a publishing house or as a journal article (articles), the pages specified in (3) must be bound in. In the case of one or more journal articles, the verso of the title sheet must show the bibliography of the offprint (with the addition "Offprint from: ...") insofar as it is not printed on the first page of a journal article by the publisher.

(5) Previously published parts of the dissertation are to be included with the remaining parts of the dissertation in a volume or book.

Section 30  
Doctoral degree certificate

(1) Immediately after delivery of the mandatory copies, the doctoral degree procedure will be finalized in the form of the presentation of the doctoral degree certificate. The doctoral degree certificate may not be issued in electronic form.

(2) If the printed dissertation is to be distributed as a monograph or journal article, the Dean may finalize the doctoral degree procedure on receipt of written confirmation issued by a publisher that the dissertation is to be published or by an editor, in which case the receipt of the printed manuscript must also be confirmed.

(3) The certificate shall show the title of the dissertation, the overall grade in German and Latin, the grades awarded for the dissertation and the colloquium in German as well as the date of the oral examination. Intermediate grades for the oral examination and dissertation may be shown. The certificate shall be signed by the President and the Dean of the faculty and bear the seal of Johannes Gutenberg University (see example in Annex II).

(4) In the case of international doctoral degree assessment procedures, a joint certificate may be issued in cooperation with the foreign university; this will show the information specified in (3). Alternatively, a certificate in accordance with Annex II will be generated that includes the phrase: "This certificate is only valid together with the corresponding certificate from [Name of foreign university]".

(5) Every doctoral candidate will be presented with a doctoral degree certificate in German with a translation into English; the latter shall be clearly marked "Translation", but shall otherwise take the form specified in (3). In addition, it shall contain an explanation of the doctoral degree in accordance with Annex II ("Credential Evaluation" at the end of the English sample doctoral certificate). Doctoral candidates may submit their own suggestion for a translation of their dissertation title.

(6) On presentation of the certificate, doctoral candidates obtain the right to use the title "Doctor of Natural Sciences ("Doctor der Naturwissenschaften": Dr. rer. nat.)". The doctoral degree assessment procedure is finalized on presentation of the certificate.

### Section 31

#### Access to examination records

Graduates have the right to view their examination records retained by the Dean's office for a 12-month period after completing the doctoral degree assessment procedure in accordance with section 21 (1), section 26 (6), section 30 (6) or section 35,

### Section 32

#### Appeals

(1) Applicants retain the right to appeal against all decisions regarding their admission as a doctoral candidate and in the doctoral degree assessment procedure within one month of their notification.

(2) The faculty council shall assess appeals submitted by applicants in response to revocation of doctoral degrees per section 35 and the withdrawal of doctoral degrees per section 37 (2).

(3) The board of examiners shall assess appeals against overall grades awarded per section 27.

(4) The ProHaF shall assess all other appeals submitted by applicants against decisions concerning admission as a doctoral candidate and in the doctoral degree assessment procedure.

## **IX. Honoring graduates**

### Section 33 Anniversary certificate

(1) To mark the 25th and 50th anniversary of the award of a doctorate, the faculty council may issue an anniversary certificate in order to honor special academic achievements or if the party in question has maintained particularly close links with Johannes Gutenberg University Mainz.

(2) The parties shall be honored in a ceremony involving presentation of the certificates in which the achievements of the degree holders will be described in accordance with (1).

### Section 34 Honorary doctorates

(1) The faculty council can award the degree of an honorary Doctorate in Natural Sciences (Dr. rer. nat. h. c.) in rare cases. The ceremony shall draw attention to the outstanding independent achievements of the honorary doctor in one of the areas specified in section 1 but whose influence extends beyond his or her area of specialization; the purpose is to honor an extraordinary life in the service of science. The person being honored may not be a member of the teaching staff at Johannes Gutenberg University.

(2) The award of an honorary doctorate is to be proposed by the faculty council. The ProHaF will discuss and vote on the proposal and shall then make a recommendation to the faculty council. The faculty council shall then vote on the recommendation. The recommendation is accepted if four fifths of the members with voting rights approve.

(3) A special certificate shall be awarded during a ceremony that will emphasize the achievements of the holder of the honorary doctoral degree in accordance with section 1.

## **X. Revocation of a doctorate and withdrawal of a doctoral degree**

### Section 35 Revocation

If it is revealed prior to the presentation of the doctoral degree certificate that a candidate has falsified their achievements or that it has been assumed in error that a candidate holds certain major requirements for the doctorate, the ProHaF has the right to declare any doctoral degree achievements null and void and, if necessary, prematurely discontinue the doctoral degree assessment procedure.

### Section 36 Changes to decisions

(1) Decisions about the recognition or evaluation of the doctoral requirements may be changed if it is retroactively revealed that the applicant intentionally provided misleading information or has exploited this in such a way to influence these decisions. The ProHaF shall make the necessary changes. The party in question shall be given the opportunity to first submit a written statement.

(2) Transcription or typographic errors as well as similar obvious mistakes in the documentation relating to the dissertation and oral examinations or in the doctoral degree certificate shall be corrected on orders from the Dean.

Section 37  
Withdrawal of a doctoral degree

- (1) The circumstances for the withdrawal of a doctoral degree are determined by the current legal regulations.
- (2) The faculty council shall decide on withdrawal based on the recommendations of the ProHaF.
- (3) The withdrawal of a doctoral degree shall be notified to all German universities with the right to award doctorates.

**XI. Transitional and final clauses**

Section 38

- (1) These Doctoral Degree Regulations shall come into force on the day after their publication. They supersede the Doctoral Degree Regulations for Faculties 17 to 22 dated April 30, 1990 (StAnz. p. 615), in the version of September 28, 2004 (StAnz. S. 1420) that apply to doctoral degree assessment procedures at Faculty 08.
- (2) Applicants who have appropriately applied to be accepted as doctoral candidates before this ordinance takes effect may submit their application for admission in accordance with the previous Doctoral Degree Regulations for a period of up to three years after the new regulations come into effect.

Mainz, Monday, December 02, 2013

The Dean  
of the Faculty of Physics, Mathematics, and Computer Science  
of Johannes Gutenberg University Mainz  
Professor Dr. Stefan Müller-Stach

**Annex I (Special rules for Section 9 (6))**

With reference to section 9 (6), the following exceptions are authorized for the Max Planck Institute for Chemistry (Otto-Hahn Institute) and for Polymer Research in Mainz

A written work to be submitted as a dissertation to the Faculty of Physics, Mathematics, and Computer Science may be prepared at the Otto Hahn Institute or the Max Planck Institute for Polymer Research with the approval of the Dean.

**Annex II**

(1) Sample dissertation title page

(Dissertation title)  
Dissertation submitted  
for the award of the title  
"Doctor  
of Natural Sciences"  
to the Faculty of Physics, Mathematics, and Computer Science  
of Johannes Gutenberg University Mainz  
in Mainz

(First and last name of the doctoral candidate)

Born in .....

Mainz, date .....

(2) Sample doctoral degree certificate in German

DER FACHBEREICH PHYSIK, MATHEMATIK UND INFORMATIK

der

JOHANNES GUTENBERG-UNIVERSITÄT

IN MAINZ

verleiht

Frau/Herrn

(Name)

geboren am ..... in .....

in Anerkennung ihrer/seiner Dissertation

(Titel der Dissertation)

und des erfolgreich

abgelegten Kolloquiums

den Grad

DOKTOR

DER NATURWISSENSCHAFTEN

(doctor rerum naturalium)

im Fach XXX

mit der Gesamtbewertung:

.....

Bewertung der Dissertationsarbeit:.....

Bewertung des Kolloquiums:.....

Mainz, den .....(Datum der mündlichen Prüfung)

Präsidentin oder Präsident

Dekanin oder Dekan des Fachbereichs

.....

Siegel

*der Johannes Gutenberg-Universität Mainz*

(3) Sample doctoral degree certificate in English

TRANSLATION

THE FACULTY OF PHYSICS, MATHEMATICS AND COMPUTER SCIENCE

of the

JOHANNES GUTENBERG UNIVERSITY

at MAINZ

awards

Ms./Mr.

(Name)

born ..... in .....

in recognition of her/his dissertation

(Title of Dissertation)

and the successfully passed oral examination

the degree of

DOCTOR OF

NATURAL SCIENCES

(doctor rerum naturalium)

in XXX

with the aggregated mark:

.....

Mark for dissertation:.....

Mark for oral examination: .....

Mainz, .....(Date)

President

Dean of the Faculty

.....

...

University Seal

*of Johannes Gutenberg University Mainz*

**Credential Evaluation:** The degree 'Doktor der Naturwissenschaften' (Doctor of Natural Sciences), awarded by the Faculty of Physics, Mathematics and Computer Science of Johannes Gutenberg University Mainz, Germany, represents the equivalent of an earned doctorate (Ph.D.) from an accredited university.