

Attachment to Correspondence RA III 2 dated October 02, 2009

Doctorate Rules and Regulations of the Physics Department of Freie Universität Berlin

Preamble

By virtue of Section 14, paragraph 1 No. 2 of the partial basic regulation (trial model) of Freie Universität Berlin dated October 27, 1998 (Official FU Announcement No. 24/1998) in connection with Section 70, para. 5 of the Higher Education Act in the State of Berlin (Berliner Hochschulgesetz - BerlHG) in the version of its publication of the revised version of February 13, 2003 (GVBl. p. 81), most recently amended by the law of March 19, 2009 (GVBl. p. 70), the faculty council of the Physics Department at Freie Universität Berlin has issued the following doctorate regulations on July 15, 2009*):

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§ 1 Definition of the Terms Doctorate and Doctoral Degree

(1) The Physics Department of Freie Universität Berlin confers a doctoral degree or a Doctor of Natural Sciences (doctor rerum naturalium, abbreviated as Dr. rer. nat.) or a Doctor of Philosophy (Ph.D) on the basis of doctoral studies and in compliance with the following provisions.

(2) The doctorate does not only provide proof of the successful conclusion of the studies, but also the applicant's qualification for in-depth scientific work through independent research endeavors in a specialization represented by the department. The written doctoral work shall consist of a scientific paper (dissertation) or several individual papers (cumulative paper) and an examination colloquium (oral defense) in the subject area of the dissertation. To earn a Doctor of Philosophy (Ph.D.), the doctoral candidate must also provide proof of the successful completion of doctoral studies within Dahlem Research School (DRS) or equivalent university studies by submitting a certificate and transcript or equivalent verification.

(3) The degree of Honorary Doctor of Natural Sciences (doctor rerum naturalium honoris causa, abbreviated: Dr. rer. nat. h.c.) can be conferred for outstanding scientific work in one of the subjects relating to Physics.

(4) Pursuant to para. 1 a doctoral degree can only be conferred a single time.

§ 2 Doctoral Committee

(1) The faculty council shall appoint the doctoral committee at the beginning of its term. This committee is responsible for the proper execution of doctoral studies and all other doctoral matters pertaining to the department. The doctoral committee shall consist of at least three full-time professors and at least one academic staff member with a doctorate. Experimental physics and theoretical physics must be represented by at least one university professor each. One deputy is to be appointed for each Representative.

(2) The doctoral committee decides on the admission of applicants and acceptance of dissertation projects to doctoral studies. The committee is obliged to advise the applicants. In the case of interdisciplinary doctoral projects, the doctoral committee shall ensure that the review adequately takes the other subjects into consideration. The meetings of the doctoral committee are closed.

(3) The doctoral committee may assign individual decisions or certain rights to the chair of the doctoral committee. The doctoral committee may reverse such assignments at any time. The right of the doctoral committee to make its own decisions shall remain unaffected.

(4) The doctoral committee reports to the faculty council and informs the faculty council of its decisions.

§ 3 Admission Requirements

(1) To be admitted to doctoral studies, the applicant must have successfully earned his or her university degree majoring in a subject essential for the doctorate at a university within the area of application of the Framework Act for Higher Education and must have passed

– A Master's examination with a total of 300 credit points – including the previously completed study program,

– A diploma examination, or

– The first state examination for teachers trained to teach at general education or vocational schools.

(2) Applicants may be admitted with a Bachelor's degree from one of the study programs essential for the doctorate, if the degree was conferred with the best possible overall grade available according to the grading scale of the respective examination regulations, and if the applicant has successfully passed an assessment test administered by two full-time professors. The doctoral committee decides on the format of the assessment test.

(3) If the applicant has a university degree other than the ones listed under para. 1 and 2, the applicant may be admitted to complete a doctorate if the applicant's qualification for the dissertation's subject area is assured. The doctoral committee may approve the application for the doctorate conditionally and require the applicant to provide graded course assessments within a certain time period that are customary for university studies listed under paragraph 1, or that are required to prove the applicant's knowledge of the doctorate being applied for.

(4) An equivalent final degree from a university that is not within the area of application of the Framework Act for Higher Education is also considered a university degree as per para.1. If the Central Office for Foreign Education Systems, which is part of the Standing Conference of Ministers of Education and Cultural Affairs [Zentralstelle für ausländisches Bildungswesen beim Sekretariat der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland] does not list this final degree as an equivalent degree, an equivalency confirmation must be obtained from this office. If the Central Office for Foreign Education Systems does not provide an evaluation of the foreign university degree, a member of the examination board qualified to do so shall evaluate the degree's equivalency. If equivalency is not determined, the examination board shall determine if, pursuant to the provisions under para. 3, an equivalency can be established.

(5) If the degree was conferred by a *Fachhochschule* [University of Applied Sciences], the respective qualification must be proven. This proof consists of a final examination at the university of applied sciences in one of the study programs essential for the doctorate with the best-possible final grade that can be granted according to the grading scale of the respective examination regulations. The examination board will decide on a case by case basis, if it wants to proceed in accordance with para. 2 or 3.

§ 4 Admission Procedure

(1) Applications for admission to a doctorate must be submitted prior to commencing any work pertaining to the dissertation project and must be submitted to the doctoral committee along with the following documents:

a) Documents, certificates, and transcripts required as per Section 3,

b) A curriculum vitae including a summary of all activities and experiences pertaining to the intended doctorate in the form of a table,

c) A statement on whether the candidate has previously declared his or her intention to earn a doctorate at another university or if doctoral studies are ongoing at another university or in another department, if applicable including all respective information,

d) A statement indicating that the applicant is familiar with the currently valid doctorate rules and regulations,

e) If the applicant's native language is not German, the person applying to Freie Universität Berlin must submit a university degree from a foreign university or similar institution, and proof of proficiency in the German language by passing the German language proficiency test for universities [Sprachprüfung für den Hochschulzugang - DSH] or comparable proof pursuant to the regulations for German language tests for foreign applicants to Freie Universität Berlin,

c) If the doctoral work is to be performed in English, proof of English language skills at the B 1 level as defined by the Common European Framework of Reference for Languages (GFR) or proof of equivalent language skills.

(2) The application for admission must be accompanied by a description of the objectives and methods of the dissertation project. The dissertation project must be approved by at least one full-time university professor of the Physics Department. The doctoral candidate shall suggest a supervisor. The suggested supervisor must confirm that he or she is prepared to assume this responsibility.

(3) The doctoral committee usually decides on applications for admission to the doctorate within one month. The reasons for a rejection must be provided in writing.

(4) The doctorate application must be rejected, if:

a) The prerequisites as per Section 3 are not fulfilled,

b) The documents listed under 1 and 2 were not submitted,

c) A doctorate has already successfully been completed in a subject area that relates to Physics,

d) A doctorate is currently in progress in the requested doctoral subject, or

e) The statement pursuant to para. 1, sub-para. c) is incorrect.

The doctoral application may also be rejected based on lack of competence as per Section 4, para. 2.

§ 5 Enrollment as Doctoral Candidate

(1) Doctoral candidates, who are not already members of Freie Universität Berlin because they work for the university or are enrolled in a study program, must enroll as a doctoral candidate at Freie Universität Berlin.

(2) If the candidate does not enroll within the time period provided in the notification of admission to complete the doctorate and/or the extension period, the admission to do the doctorate shall expire. This does not, however, preclude a new application for admission to doctoral studies.

§ 6 Supervision of the Dissertation Project, Standard Research Period

(1) Once the candidate is admitted to doctoral studies, the department must ensure that the dissertation is supervised, reviewed, and graded.

(2) Dissertation supervisors are usually professors of the Physics Department. The supervision of a dissertation is an ongoing obligation of the respective professor and cannot be delegated. If all involved parties agree, other professors or scientists that do not belong to the department may also be actively involved in the supervision.

(3) Notwithstanding para. 2, the directors, heads of research groups, and persons responsible for independent junior researcher groups and other peer members of non-university research institutes and educational institutes, who, based on cooperation agreements entered into with Freie Universität Berlin and in collaboration with the department, were granted the right to be involved in the doctorate as supervisors, experts, and examiners, have the rights and duties of part-time professors. This also applies to persons responsible for independent junior researcher groups financed by third-party funds, for which Freie Universität Berlin is the admitting institution, and who, in collaboration with the department and within the context of an agreement, were granted the right to lead doctoral candidates to a doctorate.

(4) If warranted, the doctoral committee may also appoint professors who are not associated with the Physics Department. The doctoral committee shall appoint a full-time professor from the Physics Department to support the external supervisor. External supervisors must also guarantee proper supervision, if their professional activities take place mainly outside of the State of Berlin, and must, in particular, guarantee that personal contact with the doctoral candidate is assured.

(5) The topic of the dissertation project can be chosen freely, but the choice must be made in consultation with the supervisor. Generally, the dissertation project should be completed within four years (standard research period).

(6) By providing the doctoral candidate and the department with a statement, the supervisor pledges to supervise the doctoral candidate's dissertation project for a period of up to four years. Upon request, the doctoral committee shall decide in consultation with the supervisor on any period of time exceeding four years. If the supervisor or the doctoral candidate feels compelled to terminate the supervisory relationship for good reasons, they must immediately inform the chair of the doctoral committee and state the reasons.

(7) If the supervisor's association with Freie Universität Berlin ends, the supervisor shall be entitled to complete the supervision of a commenced dissertation and be a voting member of the doctoral commission for a period of three years. This time limitation does not apply to former full-time professors of Freie Universität Berlin, whose teaching certificate and examination authorization are still valid.

§ 7 Dissertation

(1) The written dissertation shall prove the qualification for independent in-depth scientific work. The results of the dissertation must represent a scientific advancement in the subject area.

(2) The written doctoral work to be submitted in German or English may consist of:

a) An unpublished or completely or partially published paper that must contain an integrally closed presentation of the research and its results. Prior publications are only allowed if jointly agreed upon by the doctoral candidate and the supervisor.

or

b) A cumulative paper consisting of published or unpublished individual papers, that, in toto, must represent achievements equal to a dissertation pursuant to a). Published individual papers must be published in an internationally recognized scientific journal with a review process, and unpublished individual papers accepted by such journals after the respective review. The doctoral candidate must be the respective first author. A cumulative paper that must have one overall title must also, in addition to the requirements listed under Section 7, para. 5. contain a list of titles of the individual papers and an introduction and accompanying text that summarily interprets, reviews, and discusses the individual contributions to the cumulative paper. At least four individual contributions must be submitted. The supervisor shall identify in writing, which contribution the doctoral candidate has made to the respective papers and that his/her contribution was authored independently and under the primary responsibility of the doctoral candidate.

(3) Regarding a written doctoral paper pursuant to para. 2 developed in cooperation with other scientists, the contribution of the doctoral candidate must be clearly defined and assessable. The doctoral candidate must identify in detail the part he/she has played in the design, execution, and drafting of the paper.

(4) The doctoral candidate must reference all resources and aids that were used and assure that the paper was authored independently on this basis. The dissertation cannot have been accepted or rejected as insufficient within the context of previous doctoral studies. In the event of doubt, papers from earlier doctoral studies must be submitted for comparison purposes.

(5) The dissertation's title page must include the author's name, must designate the dissertation as submitted to the Physics Department of Freie Universität Berlin and reference the year of submission. It must also include a cover page for the names of the dissertation readers. The appendix must include a summary of the results in German and English on no more than one page as well as a list of prior publications that have resulted from this dissertation. With the consent of the doctoral candidate it should also include a short résumé of the doctoral candidate.

(6) The dissertation must be submitted in ten printed copies each. One copy must be appropriate for later copying. One copy shall remain with the department. Previous publications of parts of the paper must also be submitted as reprints in triplicates.

§ 8 Evaluation of Dissertation

(1) The doctoral committee shall appoint the dissertation readers immediately upon submission of the dissertation.

(2) The supervisor of the dissertation project shall be appointed as the first dissertation reader. The doctoral committee together with the doctoral candidate shall appoint another reader. At least one reader must be a full-time professor of the Physics Department. At least one reader must be from the dissertation's subject area. If significant methodological or objective aspects of the dissertation touch on a subject area that is predominantly represented by another department, the second reviewing professor should belong to this department. Section 6, para. 3 shall not be affected.

(3) The reader's reports must be drafted independently from each other and submitted within six weeks after having been requested. The reasons for not being able to observe the time limit must be justified in writing to the doctoral committee. The reports must be treated confidentially. The reports must recognize the importance of the dissertation and its results in a larger context and denote any deficiencies. If a reader notices deficiencies in the dissertation that can or must be addressed, the reader must describe these in the report in detail. In such cases, the reader may recommend that the dissertation be revised in accordance with the comments. Each reader

must write a final overall report, in which the reader must either recommend that the dissertation be evaluated and graded pursuant to Section 10, be rejected, or returned for a remediation of certain deficiencies and then resubmitted. If the required evaluation is not clearly outlined in the reader's report, the doctoral committee shall return the report for revision.

(4) If the readers' evaluations deviate from one another by more than one grade, the doctoral committee shall appoint another reader.

(5) If the first and second reader both grade the dissertation as "summa cum laude," a third, external reader's report must be obtained.

(6) At the end of the review process, the dissertation and the reader's grade proposals must be publicly displayed in the doctoral office for two weeks. All professors and members of the Physics Department with a doctorate may review the dissertation and the reports and may also submit written statements that must be included in the doctoral documentation. The doctoral committee must inform this group of persons that the dissertation has been publicly displayed in an appropriate manner. The doctoral committee may appoint another external reader on the basis of the statements received during the period the dissertation was publicly displayed.

§ 9 Doctoral Commission

(1) After the dissertation has been submitted, the doctoral committee shall appoint the members of the doctoral commission for the respective doctoral procedure, and shall appoint one member as the chairperson. The supervisor of the dissertation cannot, however, be the chairperson. Within the context of interdisciplinary doctoral work, other departments must be adequately taken into consideration when forming the doctoral commission.

(2) The doctoral commission consists of five members from the Department and has the following composition: three professors and one academic staff member with a doctoral degree as well as one doctoral candidate in an advisory capacity. Usually, the first and second readers are members of the doctoral committee. Alternatively, one external professor may be appointed as a member of the group of professors. Other members, particularly external readers, may be appointed as advisory members of the doctoral commission in an advisory capacity with no voting rights.

(3) The tasks of the doctoral commission are as follows:

a) Review the dissertation on the basis of the submitted reports and, if applicable, written comments as per Section 8, para. 6,

b) Schedule and conduct the oral defense,

c) Grade the oral defense, and

d) Determine the final grade by taking into consideration the individual grades of the dissertation and oral defense pursuant to Sections 10 and 11.

(4) The meetings of the doctoral commission are not open to the public. The decisions must be treated confidentially.

(5) The decisions of the doctoral commission are based on the majority decision of its voting members. All votes on achievement reviews are taken openly; abstentions are not allowed. Should a voting member of the commission resign, the doctoral committee shall replace this member accordingly.

§ 10 Decisions on the Dissertation and Scheduling the Oral Defense

(1) After the period during which the dissertation must be publicly displayed, the doctoral commission decides on the acceptance, rejection, or return of the dissertation, the admission of the doctoral candidate to the oral defense and the dissertation's grade/distinction. If the dissertation is accepted, the following grading system shall be used:

- Outstanding (summa cum laude)
- Very good (magna cum laude)
- Good (cum laude)
- Sufficient (rite).

The dissertation may only be awarded the distinction "summa cum laude," if the third reader's report is also in agreement with this evaluation. If the dissertation is rejected, the doctoral commission shall not schedule an oral defense, but declare the doctorate as failed, providing reasons for this decision. The chair of the doctoral commission shall inform the doctoral candidate in writing of the rejection and provide the reasons for this decision.

(2) The chair of the doctoral commission shall issue the invitation to the oral defense with the doctoral candidate's consent. There should be at least two weeks of lecture period between the receipt of the last reader's report and the oral defense, and at the most four months.

(3) If the dissertation has to be revised, the oral defense shall not be scheduled until the revised dissertation has been submitted and reviewed, and the period during which the dissertation was publicly displayed pursuant to Section 8, para. 6 has ended.

(4) If the doctoral candidate declares that he or she does not want to go through with the oral defense, the doctorate shall be deemed as not passed. The chair of the doctoral committee must inform the doctoral candidate of this decision in writing.

§ 11 Oral Defense

(1) The purpose of the oral defense is to prove the ability of the doctoral candidate to verbally explain and discuss scientific problems and to defend the dissertation against criticism, particularly objections of the readers. Depending on the doctoral candidate's preference, the oral defense shall be conducted in English or in German. The oral defense is open to the university unless the doctoral candidate objects. All members of the doctoral commission must attend the oral defense.

(2) The oral defense starts with a presentation of approx. 30 minutes, during which the doctoral candidate presents and explains the results of the dissertation and their significance within a larger subject-related context. Subsequently, the doctoral candidate defends the dissertation against criticism and answers questions posed by members of the doctoral commission. All questions should relate to subject-related and methodological aspects of the dissertation and its placement into the larger scientific context of the subject area. Subsequently, the chair of the doctoral commission may allow questions from the public on the topic of the oral defense. The discussion must take at least 30 minutes, but no longer than 60 minutes.

(3) The chair of the doctoral commission shall coordinate the scientific oral defense and decide which questions are legitimate and their order. The chair may exclude the public, if this is necessary for a proper oral defense; members of the doctoral committee are not considered members of the public.

(4) The members of the doctoral commission shall appoint one of its members as recording secretary. The recording secretary shall take minutes on the course of the oral defense. The minutes must be included in the doctoral documentation. The minutes must include the following information:

- Date /time/place of the oral defense,
- A list of the attending members of the doctoral commission,
- The dissertation grade,
- A list of discussion contributions in bullet point format,
- The oral defense grade,
- The final grade as per Section 11, and
- Special explanatory notes.

The minutes must be signed by the recording secretary and the chair of the doctoral commission.

(5) Should the doctoral candidate not appear for the oral defense without a valid excuse, the exam shall be deemed as not passed. The doctoral candidate shall be informed of this fact in writing.

§ 12 Decision on the Oral Defense and the Doctorate

(1) Following the oral defense, the doctoral commission shall review and grade the oral defense in a closed meeting pursuant to Section 10, para. 1. For the evaluation of the oral defense, the discussion has more weight than the presentation. For the final grade, the dissertation has more weight than the oral defense. The doctoral commission shall then determine the final grade by using the grades/distinctions listed in Section 10, para. 1. The commission shall inform the doctoral candidate about the individual grades of the dissertation, the oral defense, and the final grade. The designation "outstanding (summa com laude)" can only be awarded as a final grade, if the dissertation was also awarded this designation.

(2) After the doctoral commission has determined the final grade, the doctoral candidate shall be issued an interim certificate, bearing the dissertation's title, the individual dissertation and oral defense grades as well as the final grade/designation. This interim certificate does not entitle its owner to the use of the doctoral degree.

(3) The entire doctorate must continue to be treated confidentially even after its completion; the person who was awarded the doctorate or the former doctoral candidate is entitled to review the doctoral file for up to one year after the completion of the doctorate.

(4) If the candidate does not pass the oral defense, the chair of the doctoral committee must inform the doctoral candidate of this decision and of the respective reasons in writing within two weeks. The doctoral candidate may re-take the oral defense once, at a date between three and six months following the first exam.

(5) If the doctoral candidate also fails the second oral defense, the doctoral commission shall declare the doctorate as failed and will provide the reasons for its decision. The chair of the doctoral committee shall inform the doctoral candidate of the decision in writing within two weeks, and provide reasons.

§ 13 Publication of the Dissertation and Submission Provisions

(1) The dissertation must be made available to the scientific community in an appropriate manner by copying and distributing it. This provision shall be deemed as fulfilled, if the doctoral candidate provides the following in addition to the ten copies required as per Section 7, para. 6 free of charge to the University Library:

- a) 40 copies in letterpress print or picture print,
- b) Three original publications, if the entire dissertation was published in a journal,
- c) Three originals, if a commercial publishing house is taking care of its distribution within the book trade, and if a minimum circulation of 150 copies can be proven.
- d) Three reproducible copies in typescript together with the original copy and 50 additional copies in the form of microfiche or
- e) One electronic version for which the data format and data carrier must be coordinated with the **University Library of Freie Universität Berlin**, and eight print-outs, of which six are to be submitted to the University Library and two to the department's offices.

In the case of a), the university library must keep an appropriate number of the remaining exchangeable copies for four years. In the case of b) and c), the publication must be referenced as a dissertation including the location of the dissertation. In the case of a) and d), the doctoral candidate shall grant Freie Universität Berlin the right to produce and distribute additional copies of his or her dissertation.

(2) If the dissertation is distributed by a commercial publishing house and if a print subsidy was awarded from public funds, the university library and the Physics Department must be provided with three copies each for the purpose of exchange.

(3) The publication and fulfillment of the submission obligations as per paragraph 1 must take place within one year from the date of the oral defense. The chairperson of the doctoral committee is responsible for any decisions relating to an extension of this period, which must be based on a justified written application from the doctoral candidate.

§ 14 Doctoral Certificate

(1) A doctoral certificate shall be issued in German and, upon request, also in English.

(2) The certificate must contain the following information:

- a) The names of Freie Universität Berlin and the Physics Department,
- b) The full name, date of birth, and place of birth of the person who was awarded the doctorate,
- c) The awarded degree Doctor of Natural Sciences (doctor rerum naturalium, abbreviated: Dr. rer. nat.) or Doctor of Philosophy (Ph.D.),
- d) The title of the dissertation and, for a doctorate in the subject area of Didactics of Physics, also the addendum "Specialization: Didactics of Physics,"
- e) The date of the oral defense, which is considered the date of the doctorate,
- f) The grades of the dissertation and the dissertation as well as the final grade of the doctorate,

g) The names of the dissertation readers,

(h) The name and signature of the dean and/or the chair of the doctoral commission, and

i) The seal of Freie Universität Berlin.

(2) Doctoral candidates fulfilling the requirements for the conferment of the degree Doctor of Philosophy (Ph.D.) may instead, upon request, be conferred the degree of a Doctor of Natural Sciences (Dr. rer. nat.).

(3) If known before the certificate is presented that

1. The applicant has been untruthful with regard to important requirements for the conferment of the doctoral degree or

2. The fulfillment of essential requirements for the conferment of the doctoral degree had erroneously been assumed without the situation described under 1 being the case, the doctoral certificate shall, subject to a decision to the contrary by the doctoral committee, not be presented, and, in case of doctoral studies pursuant to Sections 1 - 12, the final exam declared as not passed.

(4) The doctoral certificate should be presented within six weeks after the notification on the fulfillment of the submission obligation as per Section 13, para. 1. and 3. The doctoral certificate entitles its owner to use the doctoral degree awarded as per Section 2. sub-para. c).

§ 15 Appeal

The result of the doctoral studies can be appealed within three months after notification of the result, must be addressed to the chair of the doctoral committee, and must include a written explanatory statement. The chair of the doctoral committee is responsible for properly conducting the appeals process, and shall inform the candidate of the commission's decision on the appeal. The doctoral commission shall generally make its decision on an appeal within one month. The evaluations made and their reasons must be verified. The result of this review including the grades must be explained in writing.

§ 16 Joint Doctorate with Foreign Educational Universities or Equivalent Educational or Research Institutions

(1) The doctorate can be carried out jointly with foreign universities or equivalent educational or research institutions, if

a) The applicant fulfills the requirements for admission to doctoral studies at the Physics Department of Freie Universität Berlin, and

b) The foreign institution has the right to grant doctorates in accordance with its national legal regulations, and if the degree to be awarded by this institution would have to be recognized within the area of application of the Basic Law.

(2) The joint doctorate must be governed by an agreement. Its contractual provisions apply in addition to the provisions of these doctorate regulations. To guarantee equivalency, the agreements must take these doctorate regulations into consideration with regard to requirements and procedure. The parties must agree on which doctorate rules and regulations apply. If applicable, the foreign doctorate rules and procedures must be presented in a German or English translation to be able to determine if they are equivalent with the requirements and

procedures of the doctorate rules and regulations of the Physics Department. If the foreign doctorate rules and regulations apply, it must be guaranteed that also the most important regulations of the doctorate rules and regulations of the Physics Department of Freie Universität Berlin are also adhered to.

(3) The doctoral candidate must be enrolled at the institutions involved.

(4) The paper may be written in German or in English and must, if applicable, also contain a summary in the third language in addition to the German and English summaries.

(5) The doctoral commission shall consist of two professors each from the university or equivalent research or educational institute involved and one departmental academic staff member with a doctorate. Both dissertation readers shall be members of the commission. Upon request, the commission may be expanded to include additional university professors. It must be guaranteed that the members of the doctoral commission are proficient in the language the exam is conducted in.

(6) In the event of divergent grading systems in the two countries, the parties must agree on how the jointly determined exam grades should be named and uniformly documented. The grading scale of the ECTS (European Credit Transfer System) shall serve as the basis:

A = outstanding = summa cum laude,

B = very good = magna cum laude,

C = good = cum laude,

D = satisfactory = rite,

F = not passed = non rite.

(7) Both universities shall jointly issue a bilingual doctoral certificate according to the template developed by the German Rectors' Conference (HRK). Accordingly, the doctoral candidate has the option to use the doctoral degree either in the German or the foreign form. However only one doctoral degree will be awarded.

§ 17 Honorary Doctorate

The faculty council may, if requested to do so by the dean or at least three full-time professors of the Physics Department, confer the honorary degree of Honorary Doctor of Natural Sciences (Dr. rer. nat. h. c.) for outstanding scientific work that is significant for one of the subject areas significant for the discipline. The doctoral committee must appoint a doctoral commission as per Section 9 to review the scientific work. The commission shall make a recommendation to the faculty council under consideration of two external readers' reports. The decision of the faculty council requires a two thirds majority of the members of the faculty council with a doctoral degree.

§ 18 Revocation of a Doctoral Degree

The revocation of a degree as per Section 1 is governed by the legal provisions.

§ 19 Discontinuation of Doctoral Studies, Withdrawal, New Doctorate

(1) If more than six years have passed since the candidate was admitted to doctoral studies, the doctoral committee may discontinue the procedure after having previously obtained the written approval of the supervisor and having a hearing with the doctoral candidate. The discontinuation

notification must include reasons. It is issued in writing by the chair of the doctoral committee. This does not, however, preclude a new application for admission to doctoral studies.

(2) The doctoral candidate is entitled to withdraw before the first reader's report is received. Once the candidate has withdrawn, the procedural steps taken up to that date are no longer considered part of the doctoral procedure.

(3) If the doctorate is not passed, admission to a new doctorate may be applied for, but the new dissertation cannot be submitted until after one year has passed.

§ 20 Legal Effectiveness, Expiration, and Interim Regulations

(1) These doctorate rules and regulations shall become effective one day after their publication in the Official Announcements (official register of Freie Universität Berlin). Concurrently, the doctorate regulations of the Physics Department dated April 14, 1998 (FU Communication No. 11/1998) shall become invalid.

(2) Doctoral candidates that were working on a dissertation at the time these rules and regulations became effective and that were admitted in accordance to the formerly valid doctoral procedure pursuant to Sections 3 and 4 of the Doctorate Rules and para. 1, sub-para 2 may complete their doctorates in accordance with the former rules and procedures, provided an interim period of four years after these rules and regulations have become effective is not exceeded. Section 13 of these rules and regulations also applies to all procedures that have not yet been concluded pursuant to the former rules and regulations.