



## Guidelines for External Referees of Doctoral Theses at the Department of Physics and Astronomy, Heidelberg

We would like to thank you in advance for taking the considerable effort to be an external referee for a doctoral thesis in our department. Your work will be an important contribution to the continued success of our graduate education. These guidelines should help you to understand the procedures applied in the process towards a doctoral degree. Our dean's office will be glad to provide any further information, if required.

As a referee, you are usually expected to contribute to both of the steps of the examination, the written evaluation and the oral exam. Written reports are to be provided by 2 referees (of which you are one). The oral exam is conducted as a closed session with the candidate, the 2 referees as well as 2 other professors.

### **The written evaluation**

The candidate should provide you with a written version of the thesis typically 10 weeks before the oral exam is scheduled to take place. You will have 4 weeks to write your report, which needs to be submitted to the dean's office by the date communicated to you by the candidate. It is important that the deadline for the written report is met because both the thesis and the written reports of the 2 referees will be made available to faculty members for their consideration before the oral examination takes place.

The thesis represents the final results of the dissertation work and cannot be altered after the referees' reports have been obtained, with the exception of correcting minor spelling mistakes.

Your written report should consider the scientific value of the work performed and the quality of the written presentation. A doctoral thesis is expected to be an original piece of scientific work that has been performed by the author. The results of the thesis may have been published before the evaluation. Otherwise the results should be of such a quality that a refereed publication can be expected according to your judgement.

Your report should contain a grading in the range from 1 to 4 in steps of 0.5. The meaning of the gradings is:

1 (very good), 2 (good), 3 (satisfactory), 4 (passed)

You may want to contact the other referee to learn about the typical grading scale at the department.

In very exceptional cases you may recommend that the thesis merits a "distinction (summa cum laude)". This would have to be clearly stated in your report. For a distinction to be awarded, this recommendation has to be made independently by both referees and the oral exam has to show a matching performance. Please consider the recommendation for a distinction very carefully, as only the best 5% (among typically 100 theses per year) receive this very prestigious grade.

Please mail your signed report to the dean's office. In case of deadline problems, a fax copy can be sent ahead of the original letter. Please contact the dean's office if you need any advice.

## Oral Examination

The oral exam will take place in the departmental offices. Your travel costs will be covered by the candidates' research group. The candidate will have agreed with you on the date for the oral exam and you will receive an e-mail invitation from the department ahead of time. The exam is not public. The candidate presents him/herself in front of the thesis committee consisting of the 2 referees and 2 other professors. The exam begins with a 15-20 min. blackboard presentation of the thesis followed by about 45 min. of questions and answers. Questions typically start with thesis related issues, then extend into more general questions on physics in the thesis context and finally close with subjects outside of the thesis work. You are invited to ask questions at any stage during the exam but of course your input is mostly needed for your special field of work.

At the end of the oral examination, grades are given by the 4 individual examiners using the same grade scale as was used for the written report. The final grade is calculated according to a procedure defined in the regulations for doctoral theses at the University of Heidelberg. The complete regulations are only available in German, however, an extract of the essential parts has been translated into English. Both the full German version and the English extract are appended to these guidelines for your perusal.

Let me thank you again for doing this important service to our department.

I do hope that you enjoy the science and the atmosphere at the oldest German university.

A handwritten signature in black ink that reads "M. Bartelmann". The signature is written in a cursive, slightly slanted style.

Prof. Matthias Bartelmann, Dean

Appended: Promotionsordnung (in German)  
Information on the Organisation of Doctoral Studies (in English)