Guidlines for Formal Aspects of Ph.D. Theses and Complementary Documents Submitted to the Doctoral Degree Committee^{*1}

The Doctoral Degree Committee^{*1} is checking each submitted Ph.D. thesis for satisfying common formal standards. Common standards refers to guiding principles as set forth e.g. by DFG (Leitlinien zur Sicherung guter wissenschaftlicher Praxis) or TUHH (Richtlinie zur Sicherung guter wissenschaftlicher Praxis). Moreover, rules which are generally accepted in the scientific community are considered. Those may differ depending on the field. Moreover, the thesis must meet the requirements of the Doctoral Degree regulations^{*2}. Therefore, Ph.D. candidates are expected to know the Doctoral Degree regulations^{*2}.

The following guidelines shall reduce uncertainty among Ph.D. candidates about formal expectations regarding the submitted thesis and help to avoid common mistakes. There is no claim of completeness of the list. It rather gives examples based on experience. The list contains mandatory aspects ("musts") which must be respected and recommended aspects the consideration of which is finally up to the candidate and the examination committee.

In case of minor remarks, the Doctoral Degree Committee^{*1} will just forward change requests to the chair of the Ph.D. examination committee. The Chair of the examination committee is responsible for ensuring the inclusion of the requested changes in the final version of the thesis.

In case of more severe concerns or multiple violations, the thesis may be passed back to the candidate and has to be resubmitted to the Doctoral Degree Committee^{*1} with the requested changes.

Curriculum Vitae (cv)

The curriculum vitae submitted to the Doctoral Degree Committee^{*1} with the thesis upon opening of the Ph.D. procedure must be complete, i.e. without interruptions.

Short self-explaining gaps (of up to 2-3 months) may be acceptable such as a gap between graduation from school and beginning of university studies. Often used terms for filling gaps in the cv are:

- Work and travel
- Gap year
- Self-employed
- Finalization of Ph.D. thesis
- ... or the like.

The cv is not mandatory in the final published version of the thesis. If a cv is contained in the final version, it can be shortened and/or appended by most recent items. However, it must not contain items which differ from or are contradictory to the originally submitted complete cv.

Layout of the Thesis

- The cover page must exactly fit the format provided by the Doctoral Degree Committee^{*1}. Please note the differences between the cover page of the submitted and the accepted version of the thesis. Indications of gender must be adapted (e.g.: "Betreuerin" or "Betreuer" instead of "Betreuer(in)".
- For the final published version of the thesis, some publishers require specific layouts for the cover page or an editor's preface. In such cases, the compatibility with the TUHH requirements has to be confirmed with the Ph.D. office before printing.
- The dissertation should be printed double-sided
- All parts of the thesis must be easily readable, i.e. apply a sufficiently large font size. This applies in particular to text within figures and to figures themselves. Available space should be exploited in order to scale figures to a sufficient size. Using a complete page in landscape format may also be an option. Readability must still be guaranteed, if the thesis is later printed in a common smaller format such as A5.
- Figure axes must be labeled.
- Unsharp print of figures must be avoided.
- Language and grammar must be acceptable.
- Notation must be consistent throughout the thesis. In cumulative theses, consistency must be at least ensured within the explaining summary part of the thesis.

The notation of variables, constants, dimensions and operators may serve as an example for consistent notation: Typically, variables and physical constants are noted in italics, while mathematical constants, dimensions and operators are represented in non-italic form. Even if a different choice is taken, it needs to be consistently applied throughout the thesis including figures.

- Decimal points have to be notated according to the language of the thesis: In English "." is used (e.g. 1.0), while "," (e.g. 1,0) is used in case of German language.
- The numbering scheme of the sections must follow a logical hierarchy. E.g., if a Section 1.1 is defined, there must be also a Section 1.2. Otherwise, just the chapter number "1" is sufficient.
- There are different opinions on where to place the list of references:

One view is to consider the references as part of the thesis but the appendix to be not a part of the actual thesis. Consequently, the list of references should be placed before the appendix.

Another view is that also the appendix belongs to the thesis and may include e.g. long mathematical derivations. Moreover, references may be easier to find if the list is placed at the end of the thesis, i.e. after the appendix. Both solutions are acceptable and up to the author.

- It is recommended to have a list of symbols and acronyms, if applicable.
- It is recommended that figures or tables are placed after they are first referenced in the text.
- The layout should respect page margins throughout the thesis, i.e. text, tables and figures outside those margins should be avoided. In particular, page margins should respect a binding.
- It is recommended to print the submitted thesis double-sided.

References

- The list of own publications has to be submitted to the Doctoral Degree Committee^{*1} on a separate form. It shall include both publications with relation to the thesis and additional publications generated during the Ph.D. candidate period.
- At least the final published version of the thesis should not contain a separate list of own publications. Own publications should be included in the general list of references. However, own pre-publications may be mentioned in the preface.
- Citations and the list of references must follow common rules (e.g. DIN ISO).
- References must be clearly identifiable. This precludes abbreviations of journal or conference names, which can only be deciphered by insiders.
- Author lists in references must not be shortened (e.g. by using "et. al.")
- Sometimes, the list of authors in a list of references is replaced by a bar in order to indicate the same authors as for the previously listed paper. It is recommended to refrain from such abbreviations in a thesis.
- References must be given in a consistent format. I.e. the formats must not differ throughout the list of references. If DOI numbers are given at all, they should be given for all references with DOI number.
- References to online sources must include the date on which the page was visited.
- Sources of all material, in particular figures have to be cited.
- Links to online resources such as source code or other material must ensure a long-lasting availability. The TUHH repository may be considered for that purpose.

Links or barcodes to sources, which are likely to be only temporarily available, must be avoided.

Language

- A thesis can be written in English or German. No other languages are allowed. This applies also to the preface.
- In exceptional cases, very short Latin sayings or phrases may be acceptable, if they are easy to find and can be considered as part of good general education. However, it is recommended to refrain from such usage.
- Other languages are not allowed.

Preface and Acknowledgments

- The thesis version submitted to the Doctoral Degree Committee^{*1} must not contain a preface or acknowledgements. However, a preface or acknowledgements may be included in the final published version of the thesis.
- The preface and acknowledgments must be written in the language of the thesis.
- Religious acknowledgements or indications are not allowed.

Textrecycling, Self-Plagiarism

• Textrecycling from own publications, sometimes also referred to as selfplagiarism, is controversially discussed in the scientific community. For theses at TUHH, the present DFG guidelines (Leitlinien zur Sicherung guter wissenschaftlicher Praxis) must be respected.

How to handle textrecycling appears to be not generally regulated. However, textrecycling should be minimized. In any case, textrecycling must be marked and references must be given. The particular way of marking textrecycling shall follow common rules in the respective community.

Publications used for textrecycling must be included in the list of references. It is also recommended to mention pre-publications in a preface.

- It must be particularly indicated, in case recycled text is taken from another thesis, e.g. an own master thesis.
- Some publishers require specific copyright agreements. It is in the author's responsibility to avoid copyright violations in case of textrecycling, e.g. by appropriate ways of citation.

Others

- A Ph.D. thesis is an academic publication which is independent of any relationship to employers, companies and the like. Therefore, any kind of respective disclaimers or liability exclusions cannot be accepted in the thesis.
- It is recommended to refrain from citations (e.g. by famous people, sayings...) which are not related to the topic of the thesis.