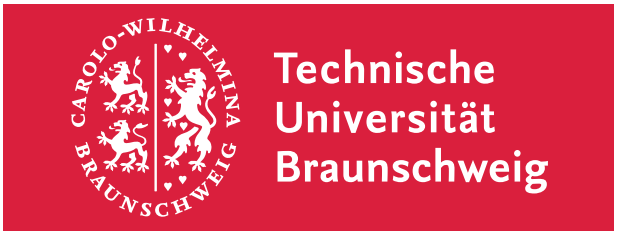
TU Braunschweig



Master's Thesis

[The Title of the Thesis]

Author:

[Forename] [Surname]

[Month 13, 2014]

Advisors:

Prof. *[Name]*

Department of *[...]*

***[Surname]*, *[Forename]*:**
[The Title of the Thesis]
Master's Thesis, TU Braunschweig, *[2014]*.

Abstract

[...]

Contents

List of Figures

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1. Introduction

[...]

Goal of this Thesis

[...]

Structure of the Thesis

[...]

2. Background

[...]

3. Example Chapter

This chapter gives you some examples how to include graphics, create tables, or include code listings. But first, we start with a short description how you can efficiently cite in LaTeX. The following footnote shows you how to reference URLs and where this document is available online.[1]

3.1 Citation

There are several types of literature. The most citations are workshop and conference papers. Please use the inproceedings-tag for those citations (e.g., [KAK09]). You should have short-hands for workshop and conference names to be sure the naming is consistent and uniform (see our BibTeX files how to do that).

Slightly different are articles published in journals (e.g., [KG06]). Make sure you that the volume and number-tags are present and that no inproceeding is tagged as article or vice versa.

You might want to take a look at the example BibTeX file to find out how to cite books [CE00], technical reports [KCH+90], websites [CDT09], PhD theses, or master theses [Beu03, Ros09].

3.2 Formulas

There are different types of mathematical environments to set formulas. The equation $E = m \cdot c^2$ is an inline formula. But you can also have formulas at a separate line (see Equation 3.1).

$$P = \big(\mathcal{A} \Rightarrow (\mathcal{B} \Leftrightarrow \mathcal{C}) \wedge (\mathcal{B} \Leftrightarrow \mathcal{D})\big) \wedge (\mathcal{B} \Rightarrow \mathcal{A}) \wedge (\mathcal{C} \Rightarrow \mathcal{A}) \wedge (\mathcal{D} \Rightarrow \mathcal{A}) \tag{3.1}$$

If you need multiple lines that are aligned to each other, you might want to use the following code.

[1] http://www.ovgu.de/tthuem

$$
\begin{aligned}
& \text{GraphLibrary} \\
\wedge\ & (\text{GraphLibrary} \Rightarrow \text{Edges}) \wedge (\text{Edges} \vee \text{Algorithms} \Rightarrow \text{GraphLibrary}) \\
\wedge\ & (\text{Edges} \Leftrightarrow \text{Directed} \vee \text{Undirected}) \wedge (\neg\text{Directed} \vee \neg\text{Undirected}) \\
\wedge\ & (\text{Algorithms} \Leftrightarrow \text{Number} \vee \text{Cycle}) \\
\wedge\ & (\text{Cycle} \Rightarrow \text{Directed}).
\end{aligned}
$$

3.3 Graphics

In Figure 3.1 on the next page, we give a small example how to insert and reference a figure.

3.4 Tables

Table 3.1 shows the result of a simple tabular environment.

Group Type	Propositional Formula
And	$(P \Rightarrow C_{k_1} \wedge \ldots \wedge C_{k_m}) \wedge (C_1 \vee \ldots \vee C_n \Rightarrow P)$
Or	$P \Leftrightarrow C_1 \vee \ldots \vee C_n$
Alternative	$(P \Leftrightarrow C_1 \vee \ldots \vee C_n) \wedge \text{atmost1}(C_1, \ldots, C_n)$

Table 3.1: Mapping a feature model to a propositional formula

3.5 Code Listings

In Listing 3.1 on page 8, we give an example of a source code listing.

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```
1  class A extends Object {
2      A() { super(); }
3  }
4  class B extends Object {
5      B() { super(); }
6  }
7  class Pair extends Object {
8      Object fst;
9      Object snd;
10     Pair(Object fst, Object snd) {
11         super(); this.fst=fst; this.snd=snd;
12     }
13     Pair setfst(Object newfst) {
14         return new Pair(newfst, this.snd);
15     }
16 }
```

Listing 3.1: Java source code

4. Tool Support

Most theses in computer science are accompanied by tool support written by the author of the thesis. Such tools enable an empirical evaluation or simply serve as a proof-of-concept. Hence, tools are typically not the ultimate goal in research, but often necessary to evaluate whether proposed concepts solve real problems. Hence, it is common to write about the tool in a dedicated chapter.

The tool chapter has several goals. For supervisors, it typically helps to estimate the implementation effort of a thesis. . . . to be continued . . .

[. . .]

5. Evaluation

[...]

6. Related Work

[...]

7. Conclusion and Future Work

[...]

A. Appendix

[...]

Bibliography

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Hiermit erkläre ich, dass ich die vorliegende Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel verwendet habe.

Braunschweig, den *[42. Monat 2014]*