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MASTER THESIS

Basic L^AT_EX Template

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Declaration of Authorship

I declare that the work presented here is original and the result of my own investigations. Formulations and ideas taken from other sources are cited as such. It has not been submitted, either in part or whole, for a degree at this or any other university.

Location, Date

Signature

Abstract

Describe your approach and results within the abstract.

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1 Introduction

Here you should write something..

2 Methods you should probably use

In general the DIV option should be used for specification of borders. It allows a correct typography of the document. The geometry package should be avoided whenever possible.

2.1 Table of Contents

Within the table of contents page numbering usually is in roman letters. Afterwards the introduction should start with page number one in arabic letters. The document class scrbook does this by default, when frontmatter, mainmatter and backmatter are defined. Therefore, you should insert the `\frontmatter` command before your table of contents, the `\mainmatter` command before your introduction and finally the `\backmatter` command before your appendix or bibliography. Please have a look at the source code of this document, all packages are explained within the comments.

2.2 Indentation

Sometimes the indentation of latex at first feels odd. Anyway if you have a look at some books, you will find that mostly a new paragraph is marked by indentation, instead of usage of an empty line.

Therefore, the indentation at the begin of this line is a desired effect.

2.3 Referencing

Use the cleverrev package to reference Chapter 1. The package allows to specify the reference style globally. Therefore, it helps to refer in a consistent way. Otherwise you may quickly have both way of references e.g. Figure and figure, since it must be written manually.

2.4 Citations

There are two ways to cite:

- Max Mustermann (2142) showed that ...
- This is currently a hot research topic (Max Mustermann, 2142)

In your bibliography, you should use strings, using the @string syntax. Otherwise you might quickly end up with a lot of different names for the same conference, which causes misleading information. (Please have a look at the bibliography file.)

2.5 Enumerations

For enumerations the package enumitem should be used since it allows for much more customization than the basic enumeration. An example from the documentation is given below.

A “normal” enumerate list with changed counter.

- a) Test 1
- b) Test 2
- c) Test 3
 - 1) Test 3.1
 - 2) Test 3.2
 - 3) Test 3.3
 - I) Test 3.3.1
 - II) Test 3.3.2
 - III) Test 3.3.3

Another list where the indentation was removed.

- a) Test 1
- b) Test 2
- c) Test 3
 - 1) Test 3.1
 - 2) Test 3.2

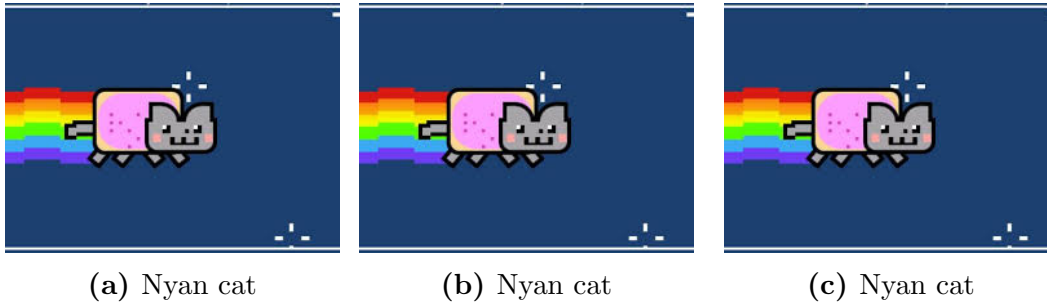


Figure 2.1: Pictures of Nyan cats

3) Test 3.3

I) Test 3.3.1

II) Test 3.3.2

III) Test 3.3.3

2.6 Figures

An example figure of nyan cats is given in Figure 2.1. It is a basic example how to use sub figures. Please note that you should provide a short name for every figure in these braces: `[]`. The short name is displayed within the table of figures, where no detailed explanation is suitable. If you do not define a short name, the whole text of the caption will be displayed. The example algorithm below provides a bad example, where the short name should be specified but is not. You can use the `FloatBarrier` command if you want to make sure that a figure is within a specific section.

In general there should be no forced line brake within a caption!

2.7 Tables

In general there should be no vertical lines within tables. One package for tables is the `booktabs` package. Many examples can be found in the web. A basic example, taken from the `booktabs` documentation, is given in Table 2.1.

Studium		
Fach	Dauer	Einkommen (€)
Info	2	12,75
MST	6	8,20
VWL	14	10,00

Table 2.1: A basic example from the booktabs package.

2.7.1 The tabu package

The tabu package provides some useful tools for advanced tables.

2.8 Algorithms

There are several packages for algorithms. A nice one is the algorithm 2e package. In Algorithm 1 a simple example from the algorithm2e documentation is given.

Algorithm 1: How to write algorithms (Small example from the algorithm2e documentation)

Data: this text

Result: how to write algorithm with L^AT_EX2e initialization;

while *not at end of this document* **do**

 read current;

if *understand* **then**

 go to next section;

 current section becomes this one;

else

 go back to the beginning of current section;

end

end

2.9 Compiling The Document

You have to compile the document in three steps:

- Compile the document using xelatex: xelatex Template.tex
- Run biber to set up bibliography: biber Template

2.9 Compiling The Document

- Run xelatex again and get the final document: Xelatex Template.tex

Bibliography

Max Mustermann, M. M. (2142). “The greatest paper of the world”. In: *Greatest Conference Of the World (GCOW)*. Vol. 42, pp. 23–42 (cit. on p. 4).