Konzeption und Entwicklung eines
datengetriebenen Unterstützungssystems
für Etatplanung und Mittelallokation
einer hybriden Spezialbibliothek

von

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Abstract

Scientific documents often use LaTeX for typesetting. While numerous packages and templates exist, it makes sense to create a new one. Just because.

Zusammenfassung

Scientific documents often use LaTeX for typesetting. While numerous packages and templates exist, it makes sense to create a new one. Just because.

Inhaltsverzeichnis

1   Einleitung

> In which the reasons for creating this package are laid
> bare for the whole world to see and we encounter so-
> me usage guidelines.

This package contains a minimal, modern template for writing your thesis. While originally meant
to be used for a Ph. D. thesis, you can equally well use it for your honour thesis, bachelor thesis,
and so on—some adjustments may be necessary, though.

1.1 Why?

I was not satisfied with the available templates for LaTeX and wanted to heed the style advice given
by people such as Robert Bringhurst [1] or Edward R. Tufte [2, 3]. While there *are* some packages
out there that attempt to emulate these styles, I found them to be either too bloated, too playful,
or too constraining. This template attempts to produce a beautiful look without having to resort
to any sort of hacks. I hope you like it.

1.2 How?

The package tries to be easy to use. If you are satisfied with the default settings, just add

```
\documentclass{mimosis}
```

at the beginning of your document. This is sufficient to use the class. It is possible to build your
document using either LaTeX|, XƎLaTeX, or LuaLaTeX. I personally prefer one of the latter two
because they make it easier to select proper fonts.

1.3 Features

The template automatically imports numerous convenience packages that aid in your typesetting
process. Tabelle 1.1 lists the most important ones. Let's briefly discuss some examples below. Please
refer to the source code for more demonstrations.

Package	Purpose
amsmath	Basic mathematical typography
amsthm	Basic mathematical environments for proofs etc.
booktabs	Typographically light rules for tables
bookmarks	Bookmarks in the resulting PDF
dsfont	Double-stroke font for mathematical concepts
graphicx	Graphics
hyperref	Hyperlinks
multirow	Permits table content to span multiple rows or columns
paralist	Paragraph ('in-line') lists and compact enumerations
scrlayer-scrpage	Page headings
setspace	Line spacing
siunitx	Proper typesetting of units
subcaption	Proper sub-captions for figures

Tabelle 1.1: A list of the most relevant packages required (and automatically imported) by this template.

1.3.1 Typesetting mathematics

This template uses amsmath and amssymb, which are the de-facto standard for typesetting mathematics. Use numbered equations using the equation environment. If you want to show multiple equations and align them, use the align environment:

$$V := \{1, 2, \ldots\} \tag{1.1}$$
$$E := \big\{(u, v) \mid \mathrm{dist}(p_u, p_v) \leq \epsilon\big\} \tag{1.2}$$

Define new mathematical operators using \DeclareMathOperator. Some operators are already predefined by the template, such as the distance between two objects. Please see the template for some examples. Moreover, this template contains a correct differential operator. Use \diff to typeset the differential of integrals:

$$f(u) := \int_{v \in \mathbb{D}} \mathrm{dist}(u, v) \, \mathrm{d}v \tag{1.3}$$

You can see that, as a courtesy towards most mathematicians, this template gives you the possibility to refer to the real numbers $\mathbb{R}$ and the domain $\mathbb{D}$ of some function. Take a look at the source for more examples. By the way, the template comes with spacing fixes for the automated placement of brackets.

1.3.2 Typesetting text

Along with the standard environments, this template offers paralist for lists within paragraphs. Here's a quick example: The American constitution speaks, among others, of (i) life (ii) liberty (iii) the pursuit of happiness. These should be added in equal measure to your own conduct. To

typeset units correctly, use the `siunitx` package. For example, you might want to restrict your daily intake of liberty to 750 mg.

Likewise, as a small pet peeve of mine, I offer specific operators for *ordinals*. Use `\th` to typeset things like July 4th correctly. Or, if you are referring to the 2nd edition of a book, please use `\nd`. Likewise, if you came in 3rd in a marathon, use `\rd`. This is my 1st rule.

1.4 CHANGING THINGS

Since this class heavily relies on the `scrbook` class, you can use *their* styling commands in order to change the look of things. For example, if you want to change the text in sections to bold you can just use

```
\setkomafont{sectioning}{\normalfont\bfseries}
```

at the end of the document preamble—you don't have to modify the class file for this. Please consult the source code for more information.

Tabellenverzeichnis

Abbildungsverzeichnis

Akronyme

PCA	Principal component analysis
SNF	Smith normal form
TDA	Topological data analysis

Glossar

LaTeX   A document preparation system

$\mathbb{R}$ The set of real numbers

LITERATUR

1. R. Bringhurst. *The Elements of Typographic Style*. 4. Aufl. Hartley & Marks Publishers, Vancouver, British Columbia, Canada, 2012.

2. E. R. Tufte. *Envisioning information*. Graphics Press, Cheshire, CT, USA, 1990.

3. E. R. Tufte. *The visual display of quantitative information*. 2. Aufl. Graphics Press, Cheshire, CT, USA, 2001.

Selbständigkeitserklärung

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