

TUDa Thesis With Typst

Title German

Master thesis by Albert Author

Date of submission: October 04, 2042

1. Review: SuperSupervisor 1

2. Review: SuperSupervisor 2

Darmstadt



TECHNISCHE
UNIVERSITÄT
DARMSTADT

field of study:
Some Field of Study

Institute ABC

Erklärung zur Abschlussarbeit gemäß § 22 Abs. 7 APB TU Darmstadt

Hiermit erkläre ich, Albert Author, dass ich die vorliegende Arbeit gemäß § 22 Abs. 7 APB TU Darmstadt selbstständig, ohne Hilfe Dritter und nur mit den angegebenen Quellen und Hilfsmitteln angefertigt habe. Ich habe mit Ausnahme der zitierten Literatur und anderer in der Arbeit genannter Quellen keine fremden Hilfsmittel benutzt. Die von mir bei der Anfertigung dieser wissenschaftlichen Arbeit wörtlich oder inhaltlich benutzte Literatur und alle anderen Quellen habe ich im Text deutlich gekennzeichnet und gesondert aufgeführt. Dies gilt auch für Quellen oder Hilfsmittel aus dem Internet.

Diese Arbeit hat in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegen.

Mir ist bekannt, dass im Falle eines Plagiats (§38 Abs.2 APB) ein Täuschungsversuch vorliegt, der dazu führt, dass die Arbeit mit 5,0 bewertet und damit ein Prüfungsversuch verbraucht wird. Abschlussarbeiten dürfen nur einmal wiederholt werden.

Bei einer Thesis des Fachbereichs Architektur entspricht die eingereichte elektronische Fassung dem vorgestellten Modell und den vorgelegten Plänen.

A. Author

Albert Author

Darmstadt, 04.10.2042

Abstract

This is a template to write your thesis with the corporate design of TU Darmstadt. For instructions on how to set up this template see Section 2.

Contents

1	Demo of the Template Style	1
1.1	Demo Paragraphs	1
1.2	Some Basic Elements	2
1.2.1	Figures	2
1.3	Test Coding	3
1.4	Lists	3
1.5	Let's do some math	4
1.5.1	Math in Latex	4
1.5.2	Adjust Equation spacing	5
1.6	Another Section	6
2	Usage of this Template	7
2.1	Template Options	7
2.2	TUDa Accent Color List	12
3	Glossary	14

List of Symbols

- t - time

List of Figures

1 Demo of the Template Style

This chapter contains lots of demo content to see how the template looks. For usage instructions go to Section 2.

1.1 Demo Paragraphs

Here is some demo text. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliquam quaerat voluptatem. Ut enim aequo doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliquam quaerat voluptatem. Ut enim aequo doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut postea variari voluptas distingue possit, augeri amplificarique non possit. At etiam Athenis, ut e patre audiebam facete et urbane Stoicos irridente, statua est in quo a nobis philosophia defensa et collaudata est, cum id, quod maxime placeat, facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet, ut et.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliquam quaerat voluptatem. Ut enim aequo doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut postea variari voluptas distingue possit, augeri amplificarique non possit. At.

1.2 Some Basic Elements

This text contains two¹ footnotes².

1.2.1 Figures

The following Figure 1 represents a demo Figure.

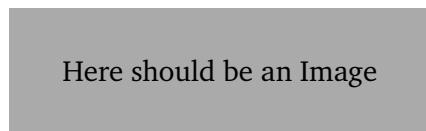


Figure 1.1: The figure caption.

We can also make tables, as in Table 1.

A	B
1	2

Table 1.1: This is the table title.

The text continues normally after the Figures.

¹The number two can also be written as 2.

²This is a first footnote.

It has a second line.

1.3 Test Coding

Let's autogenerate some stuff:

- Element Nr. 0 has value 0
 - Element Nr. 1 has value 2
 - Element Nr. 2 has value 4
-

1.4 Lists

This is a list:

1. an item
2. another item

This is another list

- an item
- another item
- yet another item

1.5 Let's do some math

Bla blub **bold**. Math: $x + y^{\frac{a+b}{2}}$.

Align:

$$x + y^2 \neq 27 \sum_{n=0}^N e^{i \cdot \pi \cdot n}$$

s.t.

$$\begin{pmatrix} 1 & 3 \\ 3 & 4 \end{pmatrix}^T = \alpha \begin{pmatrix} x & y \\ x_2 & y_2 \end{pmatrix}^T$$

$\underbrace{\mathcal{B} \geq B}_{\text{This is fancy!}}$

$$x = y^2 + 12 \quad (\text{This does A})$$

$$y = z/2 = \frac{z}{2} \quad (\text{This does B}) \quad (1)$$

In Equation 1 we can see cool stuff.

Sub equations:

$$a = \text{with line number} \quad (2.1)$$

$$b = \text{no line number}$$

$$b = \text{with line number} \quad (2.2)$$

1.5.1 Math in Latex

This is possible with the package mitex: You can include the package at the beginning of your document via `#import "@preview/mitex:0.1.0": *`. Usage:

<pre>mitex(`\begin{pmatrix} \dot{r}_x + \omega r_x - \omega p_x \\ \dot{r}_x - \omega r_x + \omega p_x \end{pmatrix} = \begin{pmatrix} +\omega \xi_x - \omega p_x \\ -\omega s_x + \omega p_x \end{pmatrix}`)</pre>	$\begin{pmatrix} \dot{r}_x + \omega r_x - \omega p_x \\ \dot{r}_x - \omega r_x + \omega p_x \end{pmatrix} = \begin{pmatrix} +\omega \xi_x - \omega p_x \\ -\omega s_x + \omega p_x \end{pmatrix}$
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1.5.2 Adjust Equation spacing

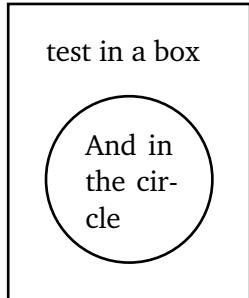
To reduce the spacing above and below block equations use:

```
#show math.equation: set block(spacing: 0.1em) // does not work!
```

With default spacing	With reduced spacing
This is Text. $x^2 = y^2$ This is Text.	This is Text. $x^2 = y^2$ This is Text.

1.6 Another Section

Some graphics:



Some more text here. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliquam quaerat. In Figure 2 we can see things.



Figure 1.2: This is a figure

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliquam quaerat voluptatem. Ut enim aequo doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut postea variari voluptas distinguere possit, augeri amplificarique non possit. At etiam Athenis, ut e patre audiebam facete et urbane Stoicos irridente, statua est in quo a nobis philosophia defensa et collaudata est, cum id, quod maxime placeat, facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et.

2 Usage of this Template

To use the template write the following in your `main.typ` file (also see the `README.md` of the repository for more details):

```
#import "templates/tuda-typst-templates/templates/tudapub/tudapub.typ": tudapub

#show: tudapub.with(
    title: [
        My Thesis
    ],
    author: "My Name",
    accentcolor: "3d"
)

= My First Chapter
Some Text
```

For the list of possible accent colors to select from see Section 2.2.

2.1 Template Options

In the following, we show the `show`-command of this template with all doc and default options. Note that this may not be up to date, thus always also look at the file `templates/tudapub/tudapub.typ`.

```
#show: tudapub.with(
    title: [Title],
    title_german: [Title German],  

  
    // Adds an abstract page after the title page with the corresponding content.
```

```
// E.g. abstract: [My abstract text...]
abstract: none,

// "master" or "bachelor" thesis
thesis_type: "master",

// The code of the accentcolor.
// A list of all available accentcolors is in the list tuda_colors
accentcolor: "9c",

// Size of the main text font
fontsize: 10.909pt, //11pt,

// Currently just a4 is supported
paper: "a4",

// Author name as text, e.g "Albert Author"
author: "An Author",

// Date of submission as string
date_of_submission: datetime(
    year: 2023,
    month: 10,
    day: 4,
),

location: "Darmstadt",

// array of the names of the reviewers
reviewer_names: ("SuperSupervisor 1", "SuperSupervisor 2"),

// language for correct hyphenation
language: "en",

// Set the margins of the content pages.
// The title page is not affected by this.
// Some example margins are defined in 'common/props.typ':
// - tud_page_margin_small // same as title page margin
// - tud_page_margin_big
// E.g. margin: (
```

```

//   top: 30mm,
//   left: 31.5mm,
//   right: 31.5mm,
//   bottom: 56mm
// ),
margin: tud_page_margin_big,

// tuda logo - has to be a svg. E.g. image("PATH/T0/LOGO")
logo_tuda: image("logos/tuda_logo.svg"),

// optional sub-logo of an institute.
// E.g. image("logos/iasLogo.jpeg")
logo_institute: none,

// How to set the size of the optional sub-logo
// either "width": use tud_logo_width*(2/3)
// or      "height": use tud_logo_height*(2/3)
logo_institute_sizeing_type: "width",

// Move the optional sub-logo horizontally
logo_institute_offset_right: 0mm,

// An additional white box with content e.g. the institute, ... below the tud
// logo.
// Disable it by setting its value to none.
// E.g. logo_sub_content_text: [ Institute A \ filed of study: \ B]
logo_sub_content_text: [
    field of study: \
    Some Field of Study \
    \
    Institute A
],


// The bibliography created with the bibliography(...) function.
// When this is not none a references section will appear at the end of the
// document.
// E.g. bib: bibliography("my_references.bib")
bib: none,

```

```
// Add an English translation to the "Erklärung zur Abschlussarbeit".
thesis_statement_pursuant_include_english_translation: false,

// Which pages to insert
// Pages can be disabled individually.
show_pages: (
    title_page: true,
    outline_table_of_contents: true,
    // "Erklärung zur Abschlussarbeit"
    thesis_statement_pursuant: true
),

// Insert additional pages directly after the title page.
// E.g. additional_pages_after_title_page: [
//     = Notes
//     #pagebreak()
//     = Another Page
// ]
additional_pages_after_title_page: none,

// Insert additional pages directly after the title page.
// E.g. additional_pages_after_title_page: [
//     = Notes
//     #pagebreak()
//     = Another Page
// ]
additional_pages_before_outline_table_of_contents: none,

// Insert additional pages directly after the title page.
// E.g. additional_pages_after_title_page: [
//     = Notes
//     #pagebreak()
//     = Another Page
// ]
additional_pages_after_outline_table_of_contents: none,
```

```

// For headings with a height level than this number no number will be shown.
// The heading with the lowest level has level 1.
// Note that the numbers of the first two levels will always be shown.
heading_numbering_max_level: 3,

// In the outline the max heading level will be shown.
// The heading with the lowest level has level 1.
outline_table_of_contents_max_level: 3,

// Set space above the heading to zero if it's the first element on a page.
// This is currently implemented as a hack (check the y pos of the heading).
// Thus when you experience compilation problems (slow, no convergence) set
this to false.
reduce_heading_space_when_first_on_page: false,

// How the table of contents outline is displayed.
// Either "adapted": use the default typst outline and adapt the style
// or      "rewritten": use own custom outline implementation which better
reproduces the look of the original latex template.
// Note that this may be less stable than "adapted", thus
when you notice visual problems with the outline switch to "adapted".
outline_table_of_contents_style: "rewritten",

// Use own rewritten footnote display implementation.
// This may be less stable than the built-in footnote display impl.
// Thus when having problems with the rendering of footnote disable this
option.
footnote_rewritten_fix_alignment: true,

// When footnote_rewritten_fix_alignment is true, add a hanging intent to
multiline footnotes.
footnote_rewritten_fix_alignment_hanging_indent: true,

// Use 'Roboto Slab' instead of 'Robot' font for figure captions.
figure_caption_font_roboto_slab: true,

// Figures have the numbering <chapter-nr>.<figure-nr>
figure_numbering_per_chapter: true,

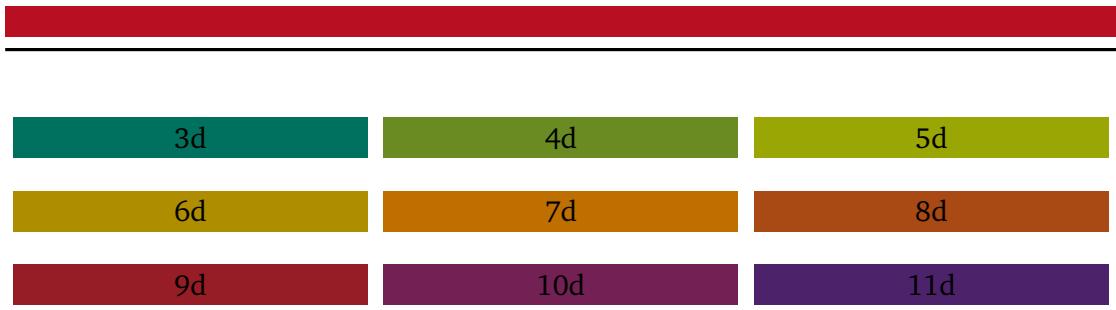
```

```
// Equations have the numbering <chapter-nr>.<equation-nr>
// @todo This seems to increase the equation number in steps of 2 instead of
one
equation_numbering_per_chapter: false,
)
```

2.2 TUDa Accent Color List

The list of colors that can be used in the template argument `accentcolor`:





3 Glossary

KDE Community: An international team developing and distributing Open Source software.

KU Leuven

OIDC – OpenID Connect: OpenID is an open standard and decentralized authentication protocol promoted by the non-profit OpenID Foundation.

UNamur – Université de Namur

Bibliography

- [1] “IMRAD.” Accessed: Dec. 20, 2018. [Online]. Available: <https://en.wikipedia.org/wiki/IMRAD>
- [2] M. Kohm, “KOMA-Script.” Accessed: Feb. 05, 2019. [Online]. Available: <http://mirrors.ctan.org/macros/latex/contrib/koma-script/doc/scrguide.pdf>
- [3] R. Niepraschk, W. Schmidt, and H. Gäßlein, “The document class leaflet.” Accessed: Feb. 12, 2020. [Online]. Available: <http://mirrors.ctan.org/macros/latex/contrib/leaflet/leaflet-manual.pdf>
- [4] “Das Bild der TU Darmstadt.” Accessed: May 01, 2020. [Online]. Available: https://www.intern.tu-darmstadt.de/media/medien_stabsstelle_km/services/medien_cd/das_bild_der_tu_darmstadt.pdf
- [5] M. Peischl, “TUDaPub – \LaTeX-Paper im Corporate Design der TU Darmstadt.” Accessed: Oct. 12, 2021. [Online]. Available: <http://mirrors.ctan.org/macros/latex/contrib/tuda-ci/doc/DEMO-TUDaPub.pdf>