

Title of the Bachelor Thesis

Optional Subtitle Goes Here

Bachelor Thesis
Faculty of Science, University of Bern

submitted by

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Abstract

Here comes the abstract that summarizes your work.

Acknowledgements

I am grateful to ...

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Chapter 1

Introduction

In a preamble (even before the first section) you can describe both the goal and content of this chapter – it is also helpful to give a short outline of the chapter. That is, one describes what can be found in which section and subsection. By means of labels you can refer to chapters – e.g. Chapter 2 – or sections – e.g. Section 1.1.1. Remember that at least two sections are required at each level.

1.1 Title of First Section

First section on the first level.

1.1.1 Title of First Subsection

First section on the second level.

Title of First Subsubsection

First section on the third level.

Title of Second Subsubsection

Second section on the third level.

1.1.2 Title of Second Subsection

Second section on the second level.

1.2 Title of Second Section

Second section on the first level.

Chapter 2

Basic Concepts

One can show that everything will be fine [1]. Yet, Fuchs et al. have also proven to err is human [2].

One of the major advantages of L^AT_EX is the possibility to display math. From rather simple things like $\varphi : \mathcal{G} \rightarrow \mathbb{R}^n$ or

$$\varphi_n^{\mathcal{P}}(g) = (d(g, p_1), \dots, d(g, p_n))$$

to equation arrays like

$$\begin{aligned} \|\varphi(g) - \varphi(g')\| &= \left(\sum_{i=1}^n (d(g, p_i) - d(g', p_i))^2 \right)^{\frac{1}{2}} \\ &\leq (n \cdot d(g, g')^2)^{\frac{1}{2}} \\ &= \sqrt{n} \cdot d(g, g') \end{aligned} \tag{2.1}$$

or the definition of cases

$$f(x) = \begin{cases} 5 & \text{if } x \geq 0 \\ 23 & \text{else} \end{cases}$$

and various others.

Chapter 3

Novel Method

In Alg. 1 an example of an algorithm is shown.

Algorithm 1 Basic Algorithm(l, u)

- 1: generate random number $n \in [l, u]$
 - 2: **while** $n \neq 42$ **do**
 - 3: **if** today is Tuesday **then**
 - 4: print(42)
 - 5: **end if**
 - 6: **end while**
 - 7: **return** best solution found so far
-

In the following code fragment the `System.out.print()` method is illustrated in Java.

```
package test;

// a Hello World Program
public class Hello {

    public static void main(String[] args) {
        System.out.print("Hi!");
    }
}
```

Chapter 4

Experimental Evaluation

In Fig. 4.1 (a) – (d) some very nice figures are shown. In this figure the possibility of displaying subfigures is used. The width of each subfigure is fixed via parameter `width`. Note that parameter `[h]` is *not* recommended at all – most of the time \LaTeX knows very well where a figure should be placed – use the parameter only if there is really no other way.

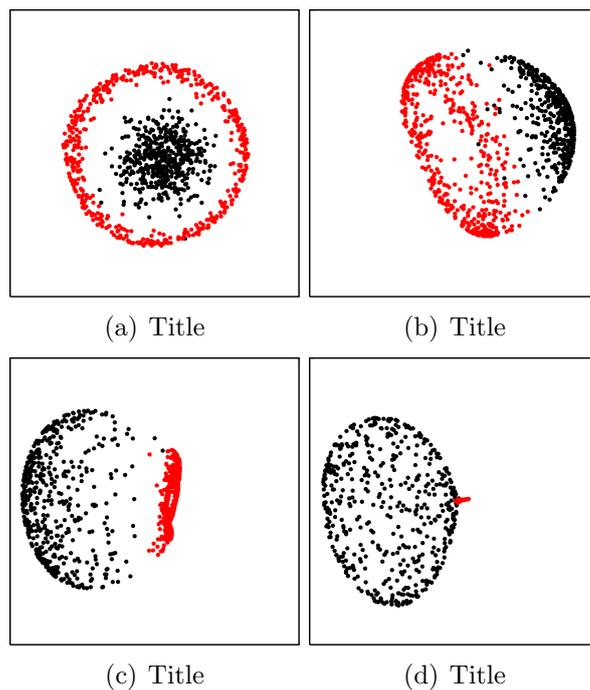


Figure 4.1: Caption of the complete figure.

In Fig. 4.2 the *Lorem ipsum* is illustrated. This time a single figure (without subfigures) is shown. Note how parameter `scale` rather than `width` is employed to manage the size of this figure.

In Table 4.1 some basic characteristics of consetetur sadipscing are shown in a rather simple format. Table 4.2 is more elaborated and uses, for instance, multi-

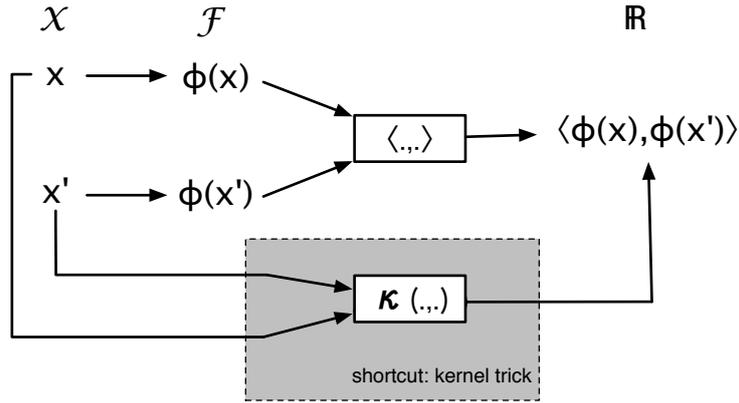


Figure 4.2: Caption of this figure.

Lorem Ipsum	
diam	vero eos et accusam et justo
justo	10 (0, 1, 2, 3, 4, 5, 6, 7, 8, 9)
aliquyam (q, w, t)	1,000, 500, 2,000
voluptua	nonumy eirmod tempor (takimata sanctus)
tempor	none
gubergren	yes

Table 4.1: Basic characteristics of Lorem Ipsum.

columns and other features.

	<i>k</i> -ta	Lorem Ipsum Dolor	
Ea Rebum	te	va	te
Gubergren	94.9	98.0	97.0 ①
Magna	66.9	72.4	68.6 ①

Table 4.2: Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua ($\alpha = 0.05$): ①/① At vero eos et accusam/justo, respectively.

Chapter 5

Conclusions and Future Work

Here come the conclusions and hints to future research activities.

Appendix A

Appendix Title

Additional material can be placed here. Do not forget to refer to the appendix in the main part of your thesis.

Bibliography

- [1] Miquel Ferrer, Dimosthenis Karatzas, Ernest Valveny, Itziar Bardají, and Horst Bunke. A generic framework for median graph computation based on a recursive embedding approach. *Comput. Vis. Image Underst.*, 115(7):919–928, 2011.
- [2] Mathias Fuchs and Kaspar Riesen. A novel way to formalize stable graph cores by using matching-graphs. *Pattern Recognit.*, 131:108846, 2022.