



My Very Long, Informative, Expressive, and Definitely Fancy Title

My full name

Universitätsdissertation
zur Erlangung des akademischen Grades

doctor rerum naturalium
(*Dr. rer. nat.*)

in der Wissenschaftsdisziplin
Theoretische Informatik

eingereicht an der
Digital-Engineering-Fakultät
der Universität Potsdam

Datum der Disputation: noch nicht bekannt gegeben

Betreuer

Prof. Dr. Tobias Friedrich

Hasso Plattner Institute, University of Potsdam

Gutachter

Prof. Dr. Examiner One

Fancy University

Prof. Dr. Examiner Two

University of Crazy Sciences

Abstract

Zusammenfassung

Acknowledgments

Contents

Abstract	iii
Zusammenfassung	v
Acknowledgments	vii
Contents	ix
1 Introduction	1
I The Beginning of It All	3
2 Demo Chapter	5
2.1 Senseless Section	7
3 Conclusions & Outlook	11
Bibliography	13
List of Publications	15

Part I

The Beginning of It All

This is where you can write some meta information about your chapter. For example, this chapter is based on one of my publications [NC25] (joint work with First Co-Author, Second Co-Author, Third Co-Author, and Fourth Co-Author), and I just blindly copied everything without adjusting it. Just a heads-up warning.

This chapter shows off some of the basic formats of this thesis. Many packages are included in order for you to be able to start immediately without having to manually add all of the important things. The features deemed most important are now presented.

Here is just some filler text.¹⁵ The following citations use the command `textcite`: Name and Co-Author [NC25]; Name et al. [Nam+30]. The first reference has a short list of authors, the second one a long list.

We now state a theorem and restate it later on again. Have a look at the source code in order to see how the theorem is written. Many macros are used, and all of them can be used without using math mode explicitly. Note that we can refer to [inequality \(2.1\)](#) as an inequality through the magic of an option in its label.

► **Theorem 2.1 (Variable Drift).** Let $(\mathcal{F}_t)_{t \in \mathbb{N}}$ be a filtration, $(X_t)_{t \in \mathbb{N}}$ be a random process over \mathbb{R}_0^+ adapted to \mathcal{F} , $x_{\min} > 0$, and let $T = \inf\{t \mid X_t < x_{\min}\}$. Additionally, let D denote the smallest real interval that contains at least all values $x \geq x_{\min}$ that, for all $t \leq T$, any X_t can take. Furthermore, suppose that

1. $X_0 \geq x_{\min}$ and that
2. there is a monotonically increasing function $h: D \rightarrow \mathbb{R}^+$ such that, for all $t < T$, we have $X_t - \mathbb{E}[X_{t+1} \mid \mathcal{F}_t] \geq h(X_t)$.

Then

$$\mathbb{E}[T \mid \mathcal{F}_0] \leq \frac{x_{\min}}{h(x_{\min})} + \int_{x_{\min}}^{X_0} \frac{1}{h(z)} dz. \quad (2.1)$$

Please shift your attention to [Figure 2.1](#). This reference was created using the package `cleveref`, which knows in what environment the label is defined in. This

¹⁵ Here is a footnote with a strange number (if that floats your boat). Note how the footnote mark is *above* the period at the end of the sentence.

Also note that you can include to-do notes if necessary. Delete this chapter!



- (a) This is the caption of the subfigure that displays the logo of the HPI. (b) This is the caption of the subfigure that displays the logo of the UP.

Figure 2.1: These are the two logos featured on the title page. [Figure 2.1 \(a\)](#) belongs to the HPI, whereas [Figure 2.1 \(b\)](#) belongs to the UP.

way, you can easily change a theorem into a lemma, and the name of the reference will be adjusted automatically. A wrapfigure like [Figure 2.2](#) is referenced just like a normal figure.

Of course, you can also use tables in a fancy style. See, for example, [Table 2.1](#). This document already contains packages in order to also handle larger tables. Hence, it is possible to use tables spanning multiple pages or to rotate a page into landscape in order to fit in a wider table.

Before we continue, consider the following obvious theorem. We conjecture that it also holds for $n = 2$.

► **Theorem 2.2.** Let $a, b, c, n \in \mathbb{N}^+$ with $n > 2$. Then

$$a^n + b^n \neq c^n . \quad \blacktriangleleft$$

Since the proof is straightforward, it is omitted. Nonetheless, we present a proof in order to show off the proof environment.

Proof of [Theorem 2.2](#). Unfortunately, there is too little space in this PDF for the proof. ■

You can have very expressive and fancy enumerations from the package `enumitem`. Again, we can easily reference an item like [item \(i\)](#).

- (i) The labels of the items can be nicely chosen.
- (ii) Note how the labels are left-aligned. This does not look good but should demonstrate what is easily possible.

We can even interrupt this enumeration and easily resume it immediately.

- (iii) We continue where we left off.

Table 2.1: This is a nicely formatted table. Thus, the caption is *above* the content. If not, the data could not be interpreted meaningfully. As a rule of thumb, never use vertical lines¹, and use horizontal lines sparingly. If you think that a table is illegible and thus needs vertical lines, then your spacing between columns is wrong and should be increased. Always use some whitespace first before you use some additional lines.

Text	Number
This is some text. Thus, it is left-aligned.	0
Numbers are right-aligned.	1
The numbers are formatted in bold using the package array.	2

Recall that [Theorem 2.1](#) was as follows:

► **Theorem 2.1 (Variable Drift).** Let $(\mathcal{F}_t)_{t \in \mathbb{N}}$ be a filtration, $(X_t)_{t \in \mathbb{N}}$ be a random process over \mathbb{R}_0^+ adapted to \mathcal{F} , $x_{\min} > 0$, and let $T = \inf\{t \mid X_t < x_{\min}\}$. Additionally, let D denote the smallest real interval that contains at least all values $x \geq x_{\min}$ that, for all $t \leq T$, any X_t can take. Furthermore, suppose that

1. $X_0 \geq x_{\min}$ and that
2. there is a monotonically increasing function $h: D \rightarrow \mathbb{R}^+$ such that, for all $t < T$, we have $X_t - \mathbb{E}[X_{t+1} \mid \mathcal{F}_t] \geq h(X_t)$.

Then

$$\mathbb{E}[T \mid \mathcal{F}_0] \leq \frac{x_{\min}}{h(x_{\min})} + \int_{x_{\min}}^{X_0} \frac{1}{h(z)} dz. \quad (2.1)$$

Note that the reference above still refers to the first occurrence of the theorem. However, the theorem is repeated without any noise. That is, it is identical to the other occurrence.

From the next page on, other than a warp figure and some filler text, there is not much more to see. Thank you very much for taking your time and reading so far. I hope you got an impression of what this template is capable of. Have fun using it, and create a great thesis!

2.1 Senseless Section

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At

¹ Except you know what you are doing.

vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Lorem ipsum dolor sit amet, consetetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.



Figure 2.2: The HPI logo is sneaked in between text.

Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum. Lorem ipsum dolor sit amet, consetetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis.

At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, At accusam aliquyam diam diam dolore dolores duo eirmod eos erat, et nonummy sed tempor et et invidunt justo labore Stet clita ea et gubergren, kasd magna no rebum. sanctus sea sed takimata ut vero voluptua. est Lorem ipsum dolor sit amet.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat.

Consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue dui dolore te feugait nulla facilisi. Lorem ipsum dolor sit amet, consetetur adipiscing elit, sed diam nonumy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.

Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue dui dolore te feugait nulla facilisi.

Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum. Lorem ipsum dolor sit amet, consetetur adipiscing elit, sed diam nonumy nibh euismod tincidunt ut laoreet

dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo.

3

Conclusions & Outlook

Bibliography

- [Nam+30] My Name, First Co-Author, Second Co-Author, Third Co-Author, and Fourth Co-Author. **Dear Lord! How Did This Get Accepted?** *Zeitschrift für Mathematische Logik und Grundlagen der Mathematik* 42:1 (2030), 2–1024 (see page 5).
- [NC25] My Name and A Co-Author. **Useless Stuff That No One Cares About.** In: *Proceedings of the coolest Annual ACM Symposium on Theory of Computing (STOC'XX)*. ACM Press, 2025, 42–1337 (see page 5).

List of Publications

Articles in Refereed Journals

- [1] **Dear Lord! How Did This Get Accepted?** *Zeitschrift für Mathematische Logik und Grundlagen der Mathematik* 42:1 (2030), 2–1024. Joint work with First Co-Author, Second Co-Author, Third Co-Author, and Fourth Co-Author.

Articles in Refereed Conference Proceedings

- [2] **Useless Stuff That No One Cares About.** In: *Proceedings of the coolest Annual ACM Symposium on Theory of Computing (STOC'XX)*. ACM Press, 2025, 42–1337. Joint work with A Co-Author.