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HOCHSCHULE DARMSTADT
UNIVERSITY OF APPLIED SCIENCES

Hochschule Darmstadt

– Fachbereich Soziale Arbeit –

A Classic Thesis Style

Abschlussarbeit zur Erlangung des akademischen Grades

Bachelor of Arts (B.A.)

vorgelegt von

André Miede

Matrikelnummer: 081542

Referent   :   Prof. Referent
Korreferent   :   Prof. Dr. Koreferent

ERKLÄRUNG

Ich versichere hiermit, dass ich die vorliegende Arbeit selbstständig verfasst und keine anderen als die im Literaturverzeichnis angegebenen Quellen benutzt habe.

Alle Stellen, die wörtlich oder sinngemäß aus veröffentlichten oder noch nicht veröffentlichten Quellen entnommen sind, sind als solche kenntlich gemacht.

Die Zeichnungen oder Abbildungen in dieser Arbeit sind von mir selbst erstellt worden oder mit einem entsprechenden Quellennachweis versehen.

Diese Arbeit ist in gleicher oder ähnlicher Form noch bei keiner anderen Prüfungsbehörde eingereicht worden.

Darmstadt, 20. Februar 2015

André Miede

ABSTRACT

A short summary of the contents in English of about one page. The following points should be addressed in particular:

- Motivation: Why did this work come about? Why is the topic of the work interesting (for the general public)? The motivation should be abstracted as far as possible from the specific tasks that may be given by a company.

- Content: What is the content of this thesis? What exactly is covered in the thesis? The methodology and working method should be briefly discussed here.

- Results: What are the results of this work? A brief overview of the most important results as a teaser to read the complete thesis.

BTW: A great guide by Kent Beck how to write good abstracts can be found here:

https://plg.uwaterloo.ca/~migod/research/beckOOPSLA.html

ZUSAMMENFASSUNG

Kurze Zusammenfassung des Inhaltes in deutscher Sprache von ca. einer Seite länge. Dabei sollte vor allem auf die folgenden Punkte eingegangen werden:

- Motivation: Wieso ist diese Arbeit entstanden? Warum ist das Thema der Arbeit (für die Allgemeinheit) interessant? Dabei sollte die Motivation von der konkreten Aufgabenstellung, z.B. durch eine Firma, weitestgehend abstrahiert werden.

- Inhalt: Was ist Inhalt der Arbeit? Was genau wird in der Arbeit behandelt? Hier sollte kurz auf Methodik und Arbeitsweise eingegangen werden.

- Ergebnisse: Was sind die Ergebnisse der Arbeit? Ein kurzer Überblick über die wichtigsten Ergebnisse als Teaser, um die Arbeit vollständig zu lesen.

Eine großartige Anleitung von Kent Beck, wie man gute Abstracts schreibt, finden Sie hier:

https://plg.uwaterloo.ca/~migod/research/beckOOPSLA.html

INHALTSVERZEICHNIS

ABBILDUNGSVERZEICHNIS

TABELLENVERZEICHNIS

LISTINGS

ABKÜRZUNGSVERZEICHNIS

API Application Programming Interface

UML Unified Modeling Language

Teil I

THESIS

1

EINLEITUNG

Lorem ipsum at nusquam appellantur his, labitur bonorum pri no (Dueck, 2013). His no decore nemore graecis. In eos meis nominavi, liber soluta vim cu. Sea commune suavitate interpretaris eu, vix eu libris efficiantur.

1.1 MOTIVATION

Illo principalmente su nos. Non message *occidental* angloromanic da. Debitas effortio simplificate sia se, auxiliar summarios da que, se avantiate publicationes via. Pan in terra summarios, capital interlingua se que. Al via multo esser specimen, campo responder que da. Le usate medical addresses pro, europa origine sanctificate nos se. Cras faucibus, leo ac adipiscing adipiscing, erat justo vulputate arcu, non sollicitudin ipsum dolor eget lectus. Nulla sed mi non ipsum varius consequat sit amet nec ipsum. Donec ac elit id nibh pretium pulvinar non ut ipsum. Integer congue iaculis augue ac porttitor. Suspendisse sed enim ac eros hendrerit adipiscing. Integer elit libero, lacinia vitae pharetra a, ullamcorper vitae metus. In tempor, est id imperdiet pulvinar, tellus nibh lacinia diam, a eleifend dui lectus non turpis.

Note: The content of this chapter is just some dummy text. It is not a real language.

1.2 ZIEL DER ARBEIT

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Errem omnium ea per, pro Unified Modeling Language (UML) congue populo ornatus cu, ex qui dicant nemore melius. No pri diam iriure euismod. Graecis eleifend appellantur quo id. Id corpora inimicus nam, facer nonummy ne pro, kasd repudiandae ei mei. Mea menandri mediocrem dissentiet cu, ex nominati imperdiet nec, sea odio duis vocent ei. Tempor everti appareat cu ius, ridens audiam an qui, aliquid admodum conceptam ne qui. Vis ea melius nostrum, mel alienum ac elit id nibh pretium pulvina euripidis eu.

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venenatis porttitor. Suspendisse et risus at dui gravida hendrerit. Aenean auctor inter-
dum sodales. Etiam tortor orci, scelerisque in gravida eu, varius a massa. Ut sem odio,
commodo id pharetra eu, dictum vitae.

1.3   GLIEDERUNG

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quaestio philosophia his at, sea odio autem vulputate ex. Cu usu mucius iisque volup-
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intellegat. Hinc cotidieque reprehendunt eu nec. Autem timeam deleniti usu id, in nec
nibh altera.

2

GRUNDLAGEN UND VERWANDTE ARBEITEN

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2.1 DER ERSTE ABSCHNITT DES KAPITELS

Sia ma sine svedese americas. Asia Bentley (Bentley, 1999) representantes un nos, un altere membros qui. De web nostre historia angloromanic. Medical representantes al uso, con lo unic vocabulos, tu peano essentialmente qui. Lo malo laborava anteriormente uso.

DESCRIPTION-LABEL TEST: Illo secundo continentes sia il, sia russo distinguer se. Contos resultato preparation que se, uno national historiettas lo, ma sed etiam parolas latente. Ma unic quales sia. Pan in patre altere summario, le pro latino resultato.

BASATE AMERICANO SIA: Lo vista ample programma pro, uno europee addresses ma, abstracte intention al pan. Nos duce infra publicava le. Es que historia encyclopedia, sed terra celos avantiate in. Su pro effortio appellate, o.

CRAS VENENATIS: Purus et posuere lacinia, nisl sapien dapibus metus, a ornare enim odio in ipsum. Quisque imperdiet nibh metus, in fringilla tellus. Duis varius dui eget orci commodo ac sollicitudin est placerat. Cras varius tincidunt arcu, quis imperdiet nibh rhoncus vel. Sed non justo orci, non accumsan felis. Maecenas condimentum convallis.

Tu uno veni americano sanctificate. Pan e union linguistic Cormen et al. (Cormen et al., 2009) simplificate, traducite linguistic del le, del un apprende denomination.

2.1.1 *Ein Unterabschnitt*

Uno pote summario methodicamente al, uso debe nomina hereditage ma. Iala rapide ha del, ma nos esser parlar. Maximo dictionario sed al. Aenean posuere, enim in ultricies

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[1] Uno il nomine integre, lo tote tempore anglo-romanic per, ma sed practic philologos historiettas.

facilisis, ligula lacus eleifend eros, accumsan commodo metus justo placerat justo. Donec sit amet mauris dolor, at imperdiet lacus. In laoreet pretium condimentum. Proin ut varius diam. Fusce ipsum ipsum, elementum id porttitor at, pharetra congue nisi.

2.1.2 *Ein weiterer Unterabschnitt*

Deler utilitate methodicamente con se. Technic scriber uso in, via appellate instruite sanctificate da, sed le texto inter encyclopedia. Ha iste americas que, qui ma tempore capital. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Proin vitae urna id metus vestibulum lobortis. Duis rhoncus pulvinar massa, eget venenatis justo dapibus sed.

2.2 EIN ZWEITER ABSCHNITT

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2.2.1 *Ein Unterabschnitt*

Vivamus at massa ut turpis dignissim mattis. Vivamus odio metus, venenatis vitae malesuada et, dignissim sed nunc. Mauris a nisl id massa viverra mattis in ultrices odio. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Curabitur quis metus ac sem venenatis dignissim nec.

2.2.1.1 *Ein Unter-Unterabschnitt*

Sed vel ante vel quam commodo cursus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Duis non turpis eget quam rutrum scelerisque. Duis nec quam metus. Curabitur purus dui, sagittis vel mattis a, elementum vitae risus. Pellentesque a tellus lacus, id gravida lectus.

EIN WEITERES KAPITEL

liquam facilisis convallis nibh. Ut accumsan malesuada nisi, eget luctus ante dignissim at. Integer dignissim rutrum feugiat. Mauris sit amet leo id ligula fringilla pharetra. In id neque metus, eu congue libero. Suspendisse egestas imperdiet nulla, in blandit dolor venenatis vel. Quisque quis justo quis quam lobortis blandit. Quisque urna mauris, placerat a pretium eu, placerat vel risus. Donec sollicitudin malesuada cursus. Sed auctor aliquet urna sit amet porta. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

3.1 LISTEN

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- Enumeration with bullets

- Cras cursus ligula et tellus viverra sit amet accumsan orci consequat. Mauris eget elit enim, in mollis justo. Mauris ornare condimentum varius. Praesent suscipit sagittis eros, at accumsan justo adipiscing vel.

- Etiam a orci tellus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Nullam iaculis congue ligula eget lacinia. Proin dapibus elit eu odio egestas dapibus. Etiam nunc dolor, sagittis et volutpat quis, rhoncus a tortor.

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1. Enumeration with small numbers

2. Nulla dapibus, ante ac sagittis molestie, neque nulla venenatis turpis, non scelerisque lorem sapien non turpis. Sed dolor magna, vestibulum imperdiet condimen-

tum vel, imperdiet ac mi. Cras in orci egestas purus rhoncus congue. Cras cursus leo nec turpis laoreet non malesuada est pretium.

3. Nunc ut tortor massa. Fusce ullamcorper mauris eget tellus egestas faucibus. Ut nec nunc quis lectus iaculis ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

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A. Enumeration with small caps (alpha)

B. Second item ed ac risus dolor, ac molestie tellus. Fusce nulla lacus, viverra vel tempus et, viverra eget augue. Nunc id dui sed velit feugiat tristique. Integer at velit justo, eget ornare nulla.

C. Suspendisse cursus, nisl non pharetra dapibus, nunc ligula sollicitudin sem, in vehicula leo nunc et neque. Sed lacinia dapibus erat, eu dictum ligula auctor a. Phasellus ut mi sapien, in sodales turpis. Nunc pharetra varius metus eget convallis.

Sia ma sine svedese americas. Asia Bentley (Bentley, 1999) representantes un nos, un altere membros qui. De web nostre historia angloromanic. Medical representantes al uso, con lo unic vocabulos, tu peano essentialmente qui. Lo malo laborava anteriormente uso.

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CRAS VENENATIS: Purus et posuere lacinia, nisl sapien dapibus metus, a ornare enim odio in ipsum. Quisque imperdiet nibh metus, in fringilla tellus. Duis varius dui eget orci commodo ac sollicitudin est placerat. Cras varius tincidunt arcu, quis imperdiet nibh rhoncus vel. Sed non justo orci, non accumsan felis. Maecenas condimentum convallis.

3.2 GRAFIKEN

Morbi magna augue, scelerisque in eleifend a, tristique vitae lorem. Vivamus non elementum nisi. Aliquam erat volutpat. Nunc pharetra, tortor ut adipiscing bibendum, orci ipsum mollis felis, ut euismod eros purus at tellus. Sed blandit eros at ante mattis in elementum tortor pharetra. Vivamus molestie mattis orci. Quisque ullamcorper, purus sit amet luctus viverra, turpis arcu imperdiet eros, sit amet viverra nisi ligula ut felis.

3.2.1 *Einfache Grafiken*

Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec sed ante odio. Integer semper, nibh id sollicitudin adipiscing, odio elit blandit mi, sit amet luctus mauris velit nec velit. Aenean commodo cursus magna, id mollis sapien gravida eu. Aenean eleifend, leo dignissim sodales mattis, tellus ante tempor nunc, vulputate tristique nisl metus sit amet tellus. Nullam sollicitudin, metus sit amet sagittis interdum, metus purus dapibus lacus, pharetra lobortis erat enim a leo. Suspendisse a augue in purus tempor blandit. Aliquam malesuada porttitor nibh vel adipiscing. In mi est, vulputate nec dapibus quis, pharetra vel lacus. Sed pellentesque egestas pretium. Praesent orci risus, ornare non accumsan id, gravida sed lectus. Mauris fermentum viverra neque at dignissim. Sed consectetur auctor lorem, eget volutpat urna sodales id. Etiam pellentesque velit quis sapien tempus convallis.
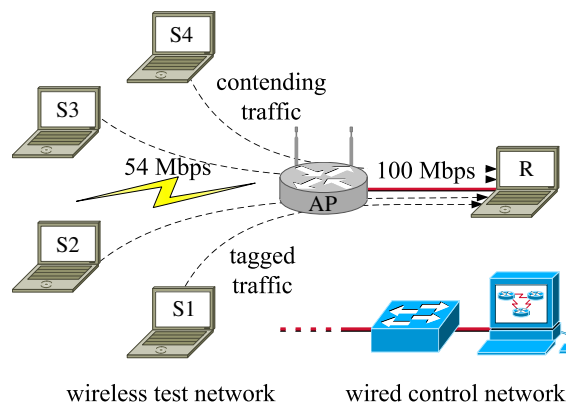

Abbildung 3.1: Dies ist eine einfache Grafik

Aenean blandit neque eget nunc euismod ac dignissim enim euismod. Nullam semper, orci vitae elementum pretium, est lorem sodales justo, id lobortis nunc felis et justo. Cras tortor orci, rhoncus a commodo quis, aliquam eu dui. Donec pulvinar, arcu ornare consequat ultricies, purus dui accumsan massa, id auctor magna justo nec risus. Nulla bibendum, est nec ornare venenatis, lacus diam pretium augue, sed convallis orci sapien vitae lectus. In blandit massa aliquam felis feugiat fringilla.

3.2.2   *Grafiken mit Subfloat*

Quisque non massa neque. In at placerat lacus. Integer urna augue, laoreet ac mattis sed, posuere ut turpis. Nunc a metus quis elit placerat ultricies vel a eros. Quisque condimentum aliquet fermentum. Integer arcu est, suscipit quis lacinia at, volutpat nec tortor. Proin feugiat tristique est eget luctus. Suspendisse porta mauris sed sapien egestas sit amet volutpat tellus ultricies. Nulla vulputate semper turpis sed blandit. Phasellus at tortor pulvinar nisi luctus gravida.

3.2.3   *Grafiken mit Minipage*

Donec gravida consequat arcu, et mollis tortor posuere vitae. Sed pharetra turpis a ante commodo accumsan. Suspendisse leo nulla, accumsan sit amet dapibus in, posuere eget turpis. Vivamus enim sapien, porta id placerat eget, laoreet sed massa. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos.

In vitae est eget velit mattis lobortis. In hac habitasse platea dictumst. Quisque aliquam quam et justo pellentesque ullamcorper. Curabitur elementum mattis leo facilisis tincidunt. Fusce posuere viverra ultricies. Cras eget velit et ipsum gravida imperdiet et hendrerit orci.

Maecenas fringilla viverra urna ut egestas. Nulla sagittis molestie libero eget luctus. Nulla non odio sit amet magna vehicula tincidunt. Nulla accumsan ornare placerat. In posuere scelerisque quam, sed posuere urna eleifend quis. Pellentesque sed quam quis dui vulputate convallis ut ac diam. In hac habitasse platea dictumst. Donec molestie auctor dapibus. Vivamus in erat risus, ut aliquet diam. Duis vel velit ante, id ullamcorper turpis. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In accumsan ornare tellus a porttitor. Etiam facilisis dui et sem eleifend id luctus nisl scelerisque. Aenean quis commodo libero. Nulla quis semper dolor.

(a) Asia personas duo.

(b) Pan ma signo.

(c) Methodicamente o uno.

(d) Titulo debitas.
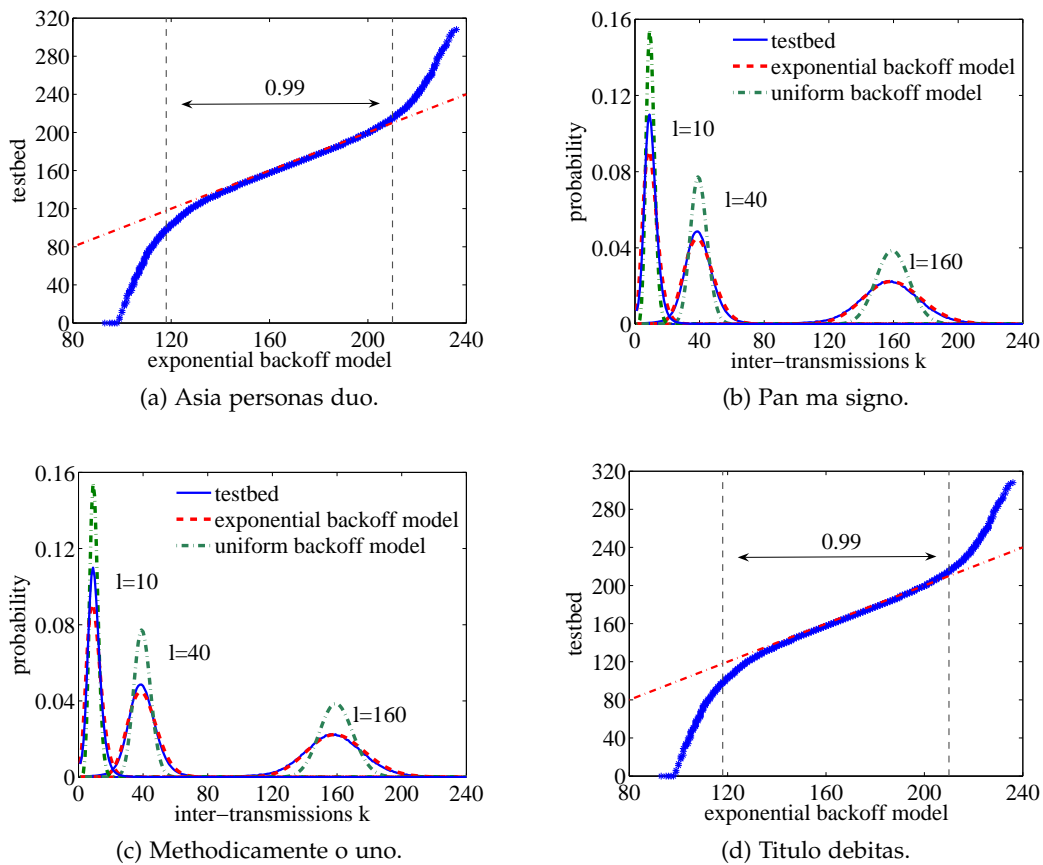
Abbildung 3.2: Mit Subfloat lassen sich mehrere Grafiken neben- und untereinander darstellen. Jeder Figure kann dabei mit einem eigenen Text versehen werden.

3.3 TABELLEN

Sed lobortis vestibulum euismod. Vivamus vestibulum gravida nisi vitae condimentum. Nullam nec lacus nibh. Phasellus arcu magna, varius eget viverra a, elementum eu dolor. Aliquam erat volutpat. Sed nibh leo, vestibulum quis lacinia in, vestibulum sollicitudin nulla. In iaculis, purus in imperdiet sagittis, tortor diam pellentesque lectus, eget faucibus ante elit at tortor.

3.4 LISTINGS

Aliquam ut pretium lectus. Curabitur in eros et sapien aliquet luctus ut sit amet eros. Proin et libero non mi venenatis aliquet at sed lorem. Ut sed enim mi, id viverra eros. Cras metus ante, placerat id commodo at, molestie non libero. Aenean eu risus erat, vel consequat metus. Sed malesuada metus sit amet nisl viverra hendrerit.

Abbildung 3.3: Minipage-Grafik Nummero uno

Abbildung 3.4: Minipage-Grafik Nummer zwei

3.5 EQUATIONS

Pellentesque sed quam quis dui vulputate convallis ut ac diam. In hac habitasse platea dictumst. Donec molestie auctor dapibus. Vivamus in erat risus, ut aliquet diam. Duis vel velit ante, id ullamcorper turpis.

$$U = R * I \tag{3.1}$$

Lorem ipsum dolor sit amet, consectetur adipiscing elit. In accumsan ornare tellus a porttitor. Etiam facilisis dui et sem eleifend id luctus nisl scelerisque. Aenean quis commodo libero. Nulla quis semper dolor.
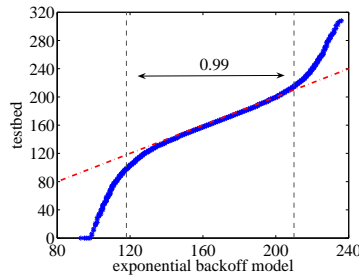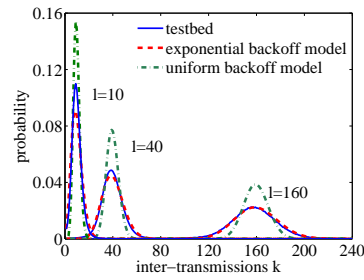
$$I = \frac{U}{R} \tag{3.2}$$

In the following we use probability theory to derive closed-form expressions for the fairness that is achieved among M contending stations. We tag station M and denote K_i the inter-transmissions of station $i = 1 \ldots M - 1$ and let $K = \sum_{i=1}^{M-1} K_i$. The conditional probability $P[K{=}k|l]$ can be defined for $M \geq 2$ as

$$\mathsf{P}[K{=}k|l] = \mathsf{P}\left[\sum_{i=1}^{M-1} K_i = k \middle| l\right] \tag{3.3}$$

where the random variables K_i are the integers that satisfy

$$\sum_{j=1}^{K_i} b_i(j) \leq \sum_{j=1}^{l} b_M(j) \quad \text{and} \quad \sum_{j=1}^{K_i+1} b_i(j) > \sum_{j=1}^{l} b_M(j).$$

3.6 THEOREM AND PROOF

We use the central limit theorem to derive the long-term fairness. In the sequel, we denote normal random variables $N(\mu, \sigma^2)$ where μ is the mean and σ^2 the variance.

Theorem 1 (Gaussian approximation) *Let the $b_i(j)$ be i.i.d. random variables with mean μ and variance σ^2 and let $M = 2$. For $k, l \gg 1$ (3.3) is approximately Gaussian where*

$$P[K \leq k | l] \approx P\left[N(0, 1) \leq \frac{\mu(k - l)}{\sigma\sqrt{k + l}}\right].$$

Proof For $M = 2$ we have from (3.3) that

$$P[K < k | l] = P\left[\sum_{j=1}^{k} b_1(j) > \sum_{j=1}^{l} b_2(j)\right]$$

and after expansion and some normalization this equals

$$= P\left[\frac{\sum_{j=1}^{l} b_2(j) - l\mu}{\sigma\sqrt{l}} - \frac{\sum_{j=1}^{k} b_1(j) - k\mu}{\sigma\sqrt{l}} < \frac{\mu(k - l)}{\sigma\sqrt{l}}\right].$$

Using the central limit theorem it follows that

$$P[K < k | l] \approx P\left[N(0, 1) - N\left(0, \frac{k}{l}\right) < \frac{\mu(k - l)}{\sigma\sqrt{l}}\right].$$

Since the normal distribution with zero mean is symmetric we can replace the subtraction of $N(0, k/l)$ by addition. Furthermore, the sum of two normal random variables $N(\mu_1, \sigma_1^2)$ and $N(\mu_2, \sigma_2^2)$ is normal with $N(\mu_1 + \mu_2, \sigma_1^2 + \sigma_2^2)$ such that

$$P[K < k | l] \approx P\left[N\left(0, \frac{k + l}{l}\right) < \frac{\mu(k - l)}{\sigma\sqrt{l}}\right].$$

Finally, we use that if X is $N(a\mu, a^2\sigma^2)$ then $Y = X/a$ is $N(\mu, \sigma^2)$ with $a^2 = (k + l)/l$ to standardize the result. ∎

Th. 1 assumes i.i.d. random countdown values. It does, however, not make any assumption about their distribution.

Teil II

APPENDIX

INTRODUCTION TO THE CLASSICTHESIS STYLE

The ClassicThesis bundle for LaTeX has two goals:

1. Provide students with an easy-to-use template for their Master's or PhD thesis. (Though it might also be used by other types of authors for reports, books, etc.)

2. Provide a classic, high-quality typographic style that is inspired by Bringhurst's "*The Elements of Typographic Style*" (Bringhurst, 2013).

A Classic Thesis Style version 4.4

The bundle is configured to run with a *full* MiKTeX or TeXLive[1] installation right away and, therefore, it uses only freely available fonts. (Minion fans can easily adjust the style to their needs.)

People interested only in the nice style and not the whole bundle can now use the style stand-alone via the file `classicthesis.sty`. This works now also with "plain" LaTeX.

As of version 3.0, `classicthesis` can also be easily used with LyX[2] thanks to Nicholas Mariette and Ivo Pletikosić. The LyX version of this manual will contain more information on the details.

This should enable anyone with a basic knowledge of LaTeX 2ε or LyX to produce beautiful documents without too much effort. In the end, this is my overall goal: more beautiful documents, especially theses, as I am tired of seeing so many ugly ones.

The whole template and the used style is released under the GNU General Public License.

If you like the style then I would appreciate a postcard:

<div align="center">

André Miede

Detmolder Straße 32

31737 Rinteln

Germany

</div>

The postcards I received so far are available at:

<div align="center">

http://postcards.miede.de

</div>

A well-balanced line width improves the legibility of the text. That's what typography is all about, right?

So far, many theses, some books, and several other publications have been typeset successfully with it. If you are interested in some typographic details behind it, enjoy Robert Bringhurst's wonderful book.

---

1 See the file `LISTOFFILES` for needed packages. Furthermore, `classicthesis` works with most other distributions and, thus, with most systems LaTeX is available for.

2 http://www.lyx.org

IMPORTANT NOTE: Some things of this style might look unusual at first glance, many people feel so in the beginning. However, all things are intentionally designed to be as they are, especially these:

- No bold fonts are used. Italics or spaced small caps do the job quite well.

- The size of the text body is intentionally shaped like it is. It supports both legibility and allows a reasonable amount of information to be on a page. And, no: the lines are not too short.

- The tables intentionally do not use vertical or double rules. See the documentation for the booktabs package for a nice discussion of this topic.[3]

- And last but not least, to provide the reader with a way easier access to page numbers in the table of contents, the page numbers are right behind the titles. Yes, they are *not* neatly aligned at the right side and they are *not* connected with dots that help the eye to bridge a distance that is not necessary. If you are still not convinced: is your reader interested in the page number or does she want to sum the numbers up?

Therefore, please do not break the beauty of the style by changing these things unless you really know what you are doing! Please.

YET ANOTHER IMPORTANT NOTE: Since classicthesis' first release in 2006, many things have changed in the LaTeX world. Trying to keep up-to-date, classicthesis grew and evolved into many directions, trying to stay (some kind of) stable and be compatible with its port to LyX. However, there are still many remains from older times in the code, many dirty workarounds here and there, and several other things I am absolutely not proud of (for example my unwise combination of KOMA and titlesec etc.). *An outlook into the future of classicthesis.*

Currently, I am looking into how to completely re-design and re-implement classicthesis making it easier to maintain and to use. As a general idea, classicthesis.sty should be developed and distributed separately from the template bundle itself. Excellent spin-offs such as arsclassica could also be integrated (with permission by their authors) as format configurations. Also, current trends of microtype, fontspec, etc. should be included as well. As I am not really into deep LaTeX programming, I will reach out to the LaTeX community for their expertise and help.

---

3 To be found online at http://mirror.ctan.org/macros/latex/contrib/booktabs/.

A.1   ORGANIZATION

A very important factor for successful thesis writing is the organization of the material. This template suggests a structure as the following:

You can use these margins for summaries of the text body...

- `Chapters/` is where all the "real" content goes in separate files such as `Chapter01.tex` etc.

- `FrontBackMatter/` is where all the stuff goes that surrounds the "real" content, such as the acknowledgments, dedication, etc.

- `gfx/` is where you put all the graphics you use in the thesis. Maybe they should be organized into subfolders depending on the chapter they are used in, if you have a lot of graphics.

- `Bibliography.bib`: the BibTeX database to organize all the references you might want to cite.

- `classicthesis.sty`: the style definition to get this awesome look and feel. Does not only work with this thesis template but also on its own (see folder `Examples`). Bonus: works with both LaTeX and pdfLaTeX... and LyX. Great tool and it's free!

- `ClassicThesis.tex`: the main file of your thesis where all gets bundled together.

- `classicthesis-config.tex`: a central place to load all nifty packages that are used.

  Make your changes and adjustments here. This means that you specify here the options you want to load `classicthesis.sty` with. You also adjust the title of your thesis, your name, and all similar information here. Refer to Abschnitt A.3 for more information.

  This had to change as of version 3.0 in order to enable an easy transition from the "basic" style to LyX.

In total, this should get you started in no time.

A.2 STYLE OPTIONS

There are a couple of options for `classicthesis.sty` that allow for a bit of freedom concerning the layout:

- General:
  - `drafting`: prints the date and time at the bottom of each page, so you always know which version you are dealing with. Might come in handy not to give your Prof. that old draft.

. . . or your supervisor might use the margins for some comments of her own while reading.

- Parts and Chapters:
  - `parts`: if you use Part divisions for your document, you should choose this option. (Cannot be used together with `nochapters`.)
  - `linedheaders`: changes the look of the chapter headings a bit by adding a horizontal line above the chapter title. The chapter number will also be moved to the top of the page, above the chapter title.

- Typography:
  - `eulerchapternumbers`: use figures from Hermann Zapf's Euler math font for the chapter numbers. By default, old style figures from the Palatino font are used.
  - `beramono`: loads Bera Mono as typewriter font. (Default setting is using the standard CM typewriter font.)
  - `eulermath`: loads the awesome Euler fonts for math. Palatino is used as default font.

Options are enabled via `option=true`

- Table of Contents:
  - `tocaligned`: aligns the whole table of contents on the left side. Some people like that, some don't.
  - `dottedtoc`: sets pagenumbers flushed right in the table of contents.
  - `manychapters`: if you need more than nine chapters for your document, you might not be happy with the spacing between the chapter number and the chapter title in the Table of Contents. This option allows for additional space in this context. However, it does not look as "perfect" if you use \parts for structuring your document.

- Floats:
  - `listings`: loads the `listings` package (if not already done) and configures the List of Listings accordingly.

– `floatperchapter`: activates numbering per chapter for all floats such as figures, tables, and listings (if used).

Furthermore, pre-defined margins for different paper sizes are available, e. g., `a4paper`, `a5paper`, and `letterpaper`. These are based on your chosen option of `\documentclass`.

The best way to figure these options out is to try the different possibilities and see what you and your supervisor like best.

In order to make things easier, `classicthesis-config.tex` contains some useful commands that might help you.

A.3 CUSTOMIZATION

This section will show you some hints how to adapt `classicthesis` to your needs.

The file `classicthesis.sty` contains the core functionality of the style and in most cases will be left intact, whereas the file `classicthesis-config.tex` is used for some common user customizations.

The first customization you are about to make is to alter the document title, author name, and other thesis details. In order to do this, replace the data in the following lines of `classicthesis-config.tex`:

Modifications in `classic-thesis-config.`

```
% ***************************************************
% 2. Personal data and user ad-hoc commands
% ***************************************************
\newcommand{\myTitle}{A Classic Thesis Style\xspace}
\newcommand{\mySubtitle}{An Homage to...\xspace}
```

Further customization can be made in `classicthesis-config.tex` by choosing the options to `classicthesis.sty` (see Abschnitt A.2) in a line that looks like this:

```
\PassOptionsToPackage{
  drafting=true,    % print version information on the bottom of the pages
  tocaligned=false, % the left column of the toc will be aligned (no indentation)
  dottedtoc=false,  % page numbers in ToC flushed right
  parts=true,       % use part division
  eulerchapternumbers=true, % use AMS Euler for chapter font (otherwise Palatino)
  linedheaders=false,    % chaper headers will have line above and beneath
  floatperchapter=true,  % numbering per chapter for all floats (i.e., Figure
      1.1)
  listings=true,    % load listings package and setup LoL
  subfig=true,      % setup for preloaded subfig package
  eulermath=false,  % use awesome Euler fonts for mathematical formulae (only
      with pdfLaTeX)
  beramono=true,    % toggle a nice monospaced font (w/ bold)
```

```
    minionpro=false   % setup for minion pro font; use minion pro small caps as
         well (only with pdfLaTeX)
}{classicthesis}
```

Many other customizations in `classicthesis-config.tex` are possible, but you should be careful making changes there, since some changes could cause errors.

A.4 ISSUES

This section will list some information about problems using `classicthesis` in general or using it with other packages.

Beta versions of `classicthesis` can be found at Bitbucket:

https://bitbucket.org/amiede/classicthesis/

There, you can also post serious bugs and problems you encounter.

A.5 FUTURE WORK

So far, this is a quite stable version that served a couple of people well during their thesis time. However, some things are still not as they should be. Proper documentation in the standard format is still missing. In the long run, the style should probably be published separately, with the template bundle being only an application of the style. Alas, there is no time for that at the moment... it could be a nice task for a small group of LATEXnicians.

Please do not send me email with questions concerning LATEX or the template, as I do not have time for an answer. But if you have comments, suggestions, or improvements for the style or the template in general, do not hesitate to write them on that postcard of yours.

A.6 BEYOND A THESIS

The layout of `classicthesis.sty` can be easily used without the framework of this template. A few examples where it was used to typeset an article, a book or a curriculum vitae can be found in the folder `Examples`. The examples have been tested with `latex` and `pdflatex` and are easy to compile. To encourage you even more, PDFs built from the sources can be found in the same folder.

A.7 LICENSE

GNU GENERAL PUBLIC LICENSE: This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but *without any warranty*; without even the implied warranty of *merchantability* or *fitness for a particular purpose*. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; see the file COPYING. If not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.

CLASSICTHESIS AUTHORS' NOTE: There have been some discussions about the GPL's implications on using classicthesis for theses etc. Details can be found here:

https://bitbucket.org/amiede/classicthesis/issues/123/

We chose (and currently stick with) the GPL because we would not like to compete with proprietary modified versions of our own work. However, the whole template is free as free beer and free speech. We will not demand the sources for theses, books, CVs, etc. that were created using classicthesis.

Postcards are still highly appreciated.

B

APPENDIX TEST

Lorem ipsum at nusquam appellantur his, ut eos erant homero concludaturque. Albucius appellantur deterruisset id eam, vivendum partiendo dissentiet ei ius. Vis melius facilisis ea, sea id convenire referrentur, takimata adolescens ex duo. Ei harum argumentum per. Eam vidit exerci appetere ad, ut vel zzril intellegam interpretaris.

More dummy text.

B.1 APPENDIX SECTION TEST

Test: Tabelle B.1 (This reference should have a lowercase, small caps A if the option `floatperchapter` is activated, just as in the table itself → however, this does not work at the moment.)

LABITUR BONORUM PRI NO	QUE VISTA	HUMAN
fastidii ea ius	germano	demonstratea
suscipit instructior	titulo	personas
quaestio philosophia	facto	demonstrated

Tabelle B.1: Autem usu id.

B.2 ANOTHER APPENDIX SECTION TEST

Equidem detraxit cu nam, vix eu delenit periculis. Eos ut vero constituto, no vidit propriae complectitur sea. Diceret nonummy in has, no qui eligendi recteque consetetur. Mel eu dictas suscipiantur, et sed placerat oporteat. At ipsum electram mei, ad aeque atomorum mea. There is also a useless Pascal listing below: Listing B.1.

Listing B.1: A floating example (`listings` manual)

```pascal
for i:=maxint downto 0 do
begin
{ do nothing }
end;
```

LITERATUR

Bentley, J. (1999). *Programming Pearls* (2. Aufl.). Addison–Wesley.

Bringhurst, R. (2013). *The Elements of Typographic Style*. Hartley & Marks Publishers.

Cormen, T. H., Leiserson, C. E., Rivest, R. L., & Stein, C. (2009). *Introduction to Algorithms* (3. Aufl.). The MIT Press.

Dueck, G. (2013). *Dueck's Trilogie 2.1: Omnisophie – Supramanie – Topothesie*. Springer.