

ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE

MASTERTHESIS

Thesis Title

Author:

Khalil HAJJI

Supervisor:

Dr. Fabien CARDINAUX

*A thesis submitted in fulfilment of the requirements
for the degree of Master of Science in Communication Systems*

in the

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Declaration of Authorship

I, Khalil HAJJI, declare that this thesis titled, 'Thesis Title' and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Signed:

Date:

“Thanks to my solid academic training, today I can write hundreds of words on virtually any topic without possessing a shred of information, which is how I got a good job in journalism.”

Dave Barry

EPFL

Abstract

Faculty Name

Communication Systems Faculty

Master of Science in Communication Systems

Thesis Title

by Khalil HAJJI

The Thesis Abstract is written here (and usually kept to just this page). The page is kept centered vertically so can expand into the blank space above the title too...

Acknowledgements

The acknowledgements and the people to thank go here, don't forget to include your project advisor...

Contents

List of Figures

List of Tables

Abbreviations

LAH List Abbreviations **Here**

Physical Constants

Speed of Light $c = 2.997\,924\,58 \times 10^8 \text{ ms}^{-\text{s}}$ (exact)

Symbols

a	distance	m
P	power	W (Js^{-1})
ω	angular frequency	rads^{-1}

For/Dedicated to/To my...

Chapter 1

Introduction

1.1 Problem statement

Welcome to this L^AT_EX Thesis Template, a beautiful and easy to use template for writing a thesis using the L^AT_EX typesetting system.

If you are writing a thesis (or will be in the future) and its subject is technical or mathematical (though it doesn't have to be), then creating it in L^AT_EX is highly recommended as a way to make sure you can just get down to the essential writing without having to worry over formatting or wasting time arguing with your word processor.

L^AT_EX is easily able to professionally typeset documents that run to hundreds or thousands of pages long. With simple mark-up commands, it automatically sets out the table of contents, margins, page headers and footers and keeps the formatting consistent and beautiful. One of its main strengths is the way it can easily typeset mathematics, even *heavy* mathematics. Even if those equations are the most horribly twisted and most difficult mathematical problems that can only be solved on a super-computer, you can at least count on L^AT_EX to make them look stunning.

1.2 Related work

L^AT_EX is not a WYSIWYG (What You See is What You Get) program, unlike word processors such as Microsoft Word or Apple's Pages. Instead, a document written for L^AT_EX is actually a simple, plain text file that contains *no formatting*. You tell L^AT_EX how you want the formatting in the finished document by writing in simple commands amongst the text, for example, if I want to use *italic text for emphasis*, I write the

`\textit{}` command and put the text I want in italics in between the curly braces. This means that L^AT_EX is a “mark-up” language, very much like HTML.

1.2.1 Problems addressed by previous research

If you are new to L^AT_EX, there is a very good eBook – freely available online as a PDF file – called, “The Not So Short Introduction to L^AT_EX”. The book’s title is typically shortened to just “lshort”. You can download the latest version (as it is occasionally updated) from here:

<http://www.ctan.org/tex-archive/info/lshort/english/lshort.pdf>

It is also available in several other languages. Find yours from the list on this page:

<http://www.ctan.org/tex-archive/info/lshort/>

It is recommended to take a little time out to learn how to use L^AT_EX by creating several, small ‘test’ documents. Making the effort now means you’re not stuck learning the system when what you *really* need to be doing is writing your thesis.

1.2.2 Methods used in previous research

If you are writing a technical or mathematical thesis, then you may want to read the document by the AMS (American Mathematical Society) called, “A Short Math Guide for L^AT_EX”. It can be found online here:

<http://www.ams.org/tex/amslatex.html>

under the “Additional Documentation” section towards the bottom of the page.

1.2.3 Critics on previous research

There are a multitude of mathematical symbols available for L^AT_EX and it would take a great effort to learn the commands for them all. The most common ones you are likely to use are shown on this page:

<http://www.sunilpatel.co.uk/latexsymbols.html>

You can use this page as a reference or crib sheet, the symbols are rendered as large, high quality images so you can quickly find the L^AT_EX command for the symbol you need.

1.2.4 L^AT_EX on a Mac

The L^AT_EX package is available for many systems including Windows, Linux and Mac OS X. The package for OS X is called MacTeX and it contains all the applications you need – bundled together and pre-customised – for a fully working L^AT_EX environment and workflow.

MacTeX includes a dedicated L^AT_EX IDE (Integrated Development Environment) called “TeXShop” for writing your ‘.tex’ files and “BibDesk”: a program to manage your references and create your bibliography section just as easily as managing songs and creating playlists in iTunes.

Chapter 2

Evaluation strategy

2.1 Other models as baselines

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2.1.1 singular value decomposition (SVD)

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2.2 Metrics and target scores

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Chapter 3

Results

3.1 Presenting the Dataset

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3.1.2 Subsection 2

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3.2 Experimental results

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Chapter 4

Conclusion

Appendix A

Appendix Title Here

Write your Appendix content here.