

UNIVERSITY OF CALGARY

An Important Contribution to the Literature

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
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DEGREE OF DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN PHILOSOPHY

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Abstract

The abstract is a concise and accurate summary of the research contained in your thesis. It gives the reader a snapshot of your research by highlighting key points. It includes the problem, method of study, and general conclusion; relevant key words that will help people find your research. It must be no longer than 350 words (Note: hyphenated words or words separated by a slash are counted as two words). It must be double-spaced or one-half spaced, and not contain graphs, tables, or illustrations.

Preface

The preface gives a statement of where the information included in your thesis came from. It gives credit to the authors who informed your work. A manuscript-based thesis must include an explanation of which parts of your thesis were already published and details of the publication. For example:

Portions of the introductory text of Chapter 1 are used with permission from Smith et al. (2015) of which I am an author. Table 1.1 is modified from Supplementary Table 3 in Smith et al. (2014). Chapter 2 of this thesis has been published as J. Smith and J. Doe, “Title of Article”. *Journal Name*, vol. 1, issue 1.

For a traditional thesis requiring ethics approval, include the name of the board that approved the research project, the title of the project, and the number of the approval certificate. For example:

This thesis is original, unpublished, independent work by the author, J. Doe. The experiments reported in Chapters 2–4 were covered by Ethics Certificate number 007, issued by the University of Calgary Conjoint Health Ethics Board for the project “Project Title” on December 15, 2016.

For a traditional thesis with no ethics approval required, simply state something along the lines of:

This thesis is original, unpublished, independent work by the author, Jane M. Doe.

Acknowledgments

The acknowledgments are a place for you to thank/recognize academics or organizations that supported you (remember you cannot make changes once your thesis is submitted, so be thoughtful!) You should include this when you want to acknowledge people who may or may not be formally recognized in your thesis elsewhere. People usually mentioned in the acknowledgments include your supervisor and committee, grant support, helpful fellow students, lab mates, or family members.

Since we're using `ℒTℒ` and the `memoir` package, we should thank Don Knuth, Leslie Lamport, and Peter Wilson.¹

¹These are the authors of [Knuth \(1986\)](#); [Lamport \(1986\)](#); [Wilson \(2016\)](#).

To mom.

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Chapter 1

Introduction

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Anonymous

The text above is an *epigraph*. In this typeface, you can have text in **boldface**, *italics*, ***bold italics***, *slanted*, and SMALL CAPS.

1.1 Literature Review

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Definition 1. A group G is said to be *abelian* (or *commutative*) if for every $a, b \in G$, $a \cdot b = b \cdot a$.

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Table 1.1: Letters and numbers

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Chapter 2

Important Results

2.1 The first result

Theorem 2 (Residue Theorem). *Let f be analytic in the region G except for the isolated singularities a_1, a_2, \dots, a_m . If γ is a closed rectifiable curve in G which does not pass through any of the points a_k and if $\gamma \approx 0$ in G , then*

$$\frac{1}{2\pi i} \int_{\gamma} f = \sum_{k=1}^m n(\gamma; a_k) \operatorname{Res}(f; a_k).$$

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Figure 2.1: Circles and arrows

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2.2 The second result

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Notes

Chapter 1 Introduction

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Chapter 2 Important Results

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Appendix

An appendix is a way to include important information that would otherwise clutter up your thesis. It should be included when there is additional relevant information that won't fit in the body of your thesis. Any Appendix must also be mentioned in the body of your thesis (e.g., "For a full list of interview questions used, please see the [Appendix](#)"). If your thesis only has one appendix, it must be titled "Appendix." If your thesis has more than one appendix, add alphabetized letters, starting with "Appendix A." The following are examples of things you might include in appendices:

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2. Additional details of methodology and/or data
3. Diagrams of equipment that you developed
4. Digital files and/or artwork digital models
5. Blank copies of questionnaires or surveys used in your research