THESIS TITLE

LAST, First

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Abstract

In this thesis, we prove that . . .. (English abstract)

摘要

在本论文中，我们证明了 .... (中文摘要)

Acknowledgement

I am grateful to my supervisor Professor X.

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Chapter 1

Introduction

1.1 Background

The study of A is motivated by B. It is important to study A.

1.2 Main results

Theorem 1.2.1. *In this thesis, we prove that*

$$e^{i\pi} + 1 = 0.$$

1.3 Structure of the thesis

In Chapter 2, we will make some necessary preparations. The proof of Theorem 1.2.1 will be given in Chapter 3.

Chapter 2

Preliminaries

2.1 Notation

Here is table of basic notations.

X	a compact metric space
$\mathscr{B}$	Borel σ-algebra
T	a continuous map from X to X
μ	a T-invariant Borel probability measure

Table 2.1: Table of notation

2.2 Definitions

Definition 2.2.1. Let X be a set. A *function* from X to Y is a mapping $f\colon X \to Y$.

2.3 Previous results

We include the following theorem, see e.g. [1].

Theorem 2.3.1. *There are infinitely many primes.*

Chapter 3

Proof of main theorems

3.1 Lemmas

Lemma 3.1.1. *If* $a \leq b$ *and* $b \leq a$*, then* $a = b$*.*

3.2 Propositions

Proposition 3.2.1. *The relation* $\leq$ *is a partial order on* $\mathbb{R}$*.*

Proof. It is readily checked that $\leq$ is a preorder. Then the proof is completed by Lemma 3.1.1. $\square$

Chapter 4

Applications

4.1 Examples

Example 4.1.1. Let $A \subset \mathbb{R}^2$ be an self-affine set.

Figure 4.1: The Barnsley fern is a self-affine set[1].

[1] This figure is generated using a notebook from zfengg/PlotIFS.jl.

Appendix A

Index of glossary terms

Bibliography

[1] G. H. Hardy and E. M. Wright. *An introduction to the theory of numbers.* Oxford University Press, Oxford, sixth edition, 2008. Revised by D. R. Heath-Brown and J. H. Silverman, With a foreword by Andrew Wiles. 3