

# Thesis title

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A Thesis Submitted in Partial Fulfilment  
of the Requirements for the Degree of  
Doctor of Philosophy  
in  
Mathematics

The Chinese University of Hong Kong  
December 2022

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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
$\mathcal{B}$	Borel $\sigma$ -algebra
$T$	a continuous map from $X$ to $X$
$\mu$	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  $f: X \rightarrow Y$ .

## 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 p*

# 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<sup>1</sup>.

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<sup>1</sup>This figure is generated using a notebook from [zfengg/PlotIFS.jl](https://github.com/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](#)