Title

题目

a thesis

submitted to School of Mathematics & Physics

of Xi'an Jiaotong-Liverpool University

in partial fulfilment for the award of the degree of

BSc Appied Mathematics

By

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Abstract

This is a template provided by SMP.

这是一个西交利物浦大学数学与物理学院提供的 final year project 模板

KEY WORDS: Latex, Final Year Project

Acknowledgements

I will take this opportunity to thank my supervisor Dr. Si Li. ...

Write something about your undergraduate study and final year project. Express your gratitude to people who help you.

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Chapter 1

Introduction

In this part, you should write an introduction about your thesis. What is the background? What are the methods studied? What is the aim of the thesis? What is your contribution?

Chapter 2

Literature Review

2.1 Cite properly

How to cite?

In this template, we use the *apalike* style and some demonstration are listed below

By Sperr et al. (2001) states the idea of bala... and Bai et al. (2021) indicates that ...

Or you may site with bracket:

The details can be found in literature (Sperr et al., 2001)

More styles can be found here: https://www.overleaf.com/learn/latex/Bibtex_bibliography_styles

2.2 In text math

In text math as like this, we can say that π is a irrational number. Suppose we have $X_1, \cdots, X_n$ is a random sample.
X is a random variable, $f(x)$ denotes the probability density function of it.

Chapter 3

Methodology

3.1 How to write theorems?

Theorem 3.1 (Pythagorean theorem) *This is a theorem about right triangles and can be summarised in the next equation*

$$x^2 + y^2 = z^2$$

And a consequence of theorem 3.1 is the statement in the next corollary.

Corollary 3.1.1 *There's no right rectangle whose sides measure 3cm, 4cm, and 6cm.*

You can reference theorems such as 3.1 when a label is assigned.

Lemma 3.2 *Given two line segments whose lengths are a and b respectively there is a real number r such that $b = ra$.*

3.2 How to write an equation?

Basic

$$x^2 \tag{3.1}$$

Aligned equations

$$\begin{aligned} x^2 &= y^2 - 1 && (3.2)\\ &= (y+1)(y-1) && (3.3) \end{aligned}$$

Equation no tag

$$x^2 = y^2 + 1 \quad \text{equation no tag}$$

Equation with cases

$$f(y) = \begin{cases} 1 + x, & x > 0 \\ \pi, & x \leq 0 \end{cases} \tag{3.4}$$

Some more demo

$$\int_0^\infty \exp(-x^2)dx = \sqrt{\pi} \tag{3.5}$$

3.3 How to include figures?

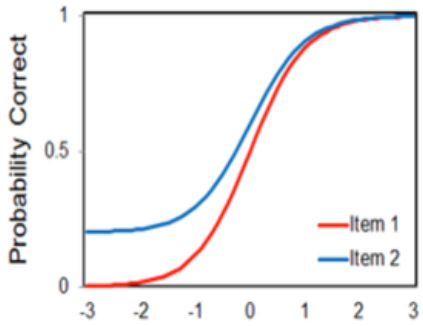

Figure 3.1: Item Response Theory Demo

You may refer the figure like Figure 3.1.

3.4 How to include tables?

1	2	3
4	5	6

Table 3.1: A Demo of Table

You may refer the table like Table 3.1.

3.5 How to draw matrix?

$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \tag{3.6}$$

$$\det(A) = \begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix} = -2 \tag{3.7}$$

3.6 More on latex

You need to double check your latex grammar before you start your thesis writing, please do google for what you want to know. This demo is not everything you need, only the basics.

Chapter 4

Simulation

Chapter 5

Data Illustration

Chapter 6

Conclusion

Bibliography

Bai, X., Li, X., Balakrishnan, N., and He, M. (2021). Statistical inference for dependent stress–strength reliability of multi-state system using generalized survival signature. *Journal of Computational and Applied Mathematics*, 390:113316.

Sperr, W., Wimazal, F., Kundi, M., Fonatsch, C., Thalhammer-Scherrer, R., Schernthaner, G., Schwarzinger, I., Haas, O., Geissler, K., Lechner, K., et al. (2001). Survival analysis and aml development in patients with de novo myelodysplastic syndromes: comparison of six different prognostic scoring systems. *Annals of hematology*, 80(5).