

國立清華大學

碩士論文

我的論文標題 (中文)

My thesis title (Chinese)



系 所：物理研究所

學 號：105022511

研 究 生：韓正忻 (Cheng-Hsin Han)

指導教授：徐百嫻 博士 (Prof. Pai-Hsien Jennifer Hsu)

中 華 民 國 一〇七 年 十 二 月



Todo list

■ “Todo List” will hide when set <code>\setboolean{publish}{true}</code> in <code>config.tex</code>	iii
---	-----





我的論文標題 (中文)

摘要

在此寫上你的中文摘要。

關鍵字：關鍵字, 論文, 樣板, 讓我畢業





My thesis title (Chinese)

Abstract

Write your English abstract here.

Keywords: Keyword, Thesis, Template, Graduate me





Acknowledgement

Thanks NCU, and sppmg's L^AT_EX template `_sppmg/tw_thesis_template_????`.





Contents

	page
摘要	v
Abstract	vii
Acknowledgement	ix
Contents	xi
Glossary	xvii
1 Introduction	1
2 The ATLAS detector	3
2.1 Coordinates	3
3 Result	5
4 Conclusion	7
5 Chapter name(demo)	9
5.1 Section name	9
5.1.1 Subsection name.....	9
6 Test demo	11
7 figure	13
7.1 Insert single figure(by sppmg's tool).....	13
7.2 Insert figures	13
8 Table	15
8.1 Simple table	15
8.2 Auto break line table.....	15



CONTENTS

A	List of device	17
B	Solutions	19
B.1	The solution.....	19
C	Code	21
C.1	C.....	21
C.2	Matlab.....	21
C.3	IDL.....	21



List of Figures

	page
7.1 short caption	13
7.2 caption, use “(b)” get ID of subfigure(this ID is Debian) in caption	14





List of Tables

	page
8.1 Solution	15
A.1 List of device	17
B.1 The solution	19





Glossary

Use table for symbol list. You can also use package “nomencl” (simple) or “glossaries” (powerful). see packages document or my tutorial (but it’s Chinese).

Glossary

VIM : The best guy’s editor
Emacs : The God’s editor
CTAN : Comprehensive TeX Archive Network, ctan.org





Chapter 1

Introduction

(You can copy “chapter_template.tex” or “chapter_template_demo.tex” to create new sub-file(chapter).)

Write your Introduction here. eg,

I don't want my chaste thesis impinge by M\$. But \LaTeX is little hard.





Chapter 2

The ATLAS detector

2.1 Coordinates

The ATLAS (**A** Toroidal **LHC** **A**pparatu**S**) experiment is one of the seven detector in Large Hadron Collider (LHC) at CERN (European Organization for Nuclear Research). Its cylindrical symmetry and end caps covers nearly 4π in solid angle.

A coordinate system is used to describe every location near ATLAS. The origin is set at the center of the detector, or the interaction point. The x-axis points toward the center of the LHC ring; the y-axis points vertically upward; the z-axis points along one of the beam pipe direction such that a right-handed coordinate sysetem is created.

A modified version of cylindrical coordinate is more commonly used in the experiment. The pseudorapidity $\eta \equiv -\ln \tan(\theta/2)$, in which θ is the polar angle in cylindrical coordinate, is used to decribe the angle between the z-axis and the direction of interest. (r, ϕ) is the same system to describe the tranverse plane, with ϕ being the azimuthal angle. In addition, the cone size is defined as $\Delta R \equiv \sqrt{(\Delta\phi)^2 + (\Delta\eta)^2}$.



Chapter 3

Result

I had a nice thesis.





Chapter 4

Conclusion

I am free, I am not own by M\$.





Chapter 5

Chapter name(demo)

Content of chapter
Content Content Content.

5.1 Section name

Content of section
Content Content Content



5.1.1 Subsection name

Content of subsection
Content Content Content

5.1.1.1 Subsubsection name

Content of subsubsection
Content Content Content

5.1.1.1.1 Paragraph name Content of paragraph
Content Content Content

Subparagraph name Content of subparagraph
Content Content Content



Chapter 6

Test demo

First line. (next line in \LaTeX)still first line.
Second line.





Chapter 7

figure

7.1 Insert single figure(by sppmg's tool)

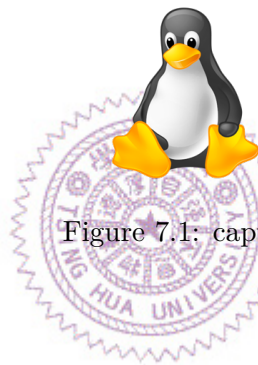


Figure 7.1: caption

7.2 Insert figures

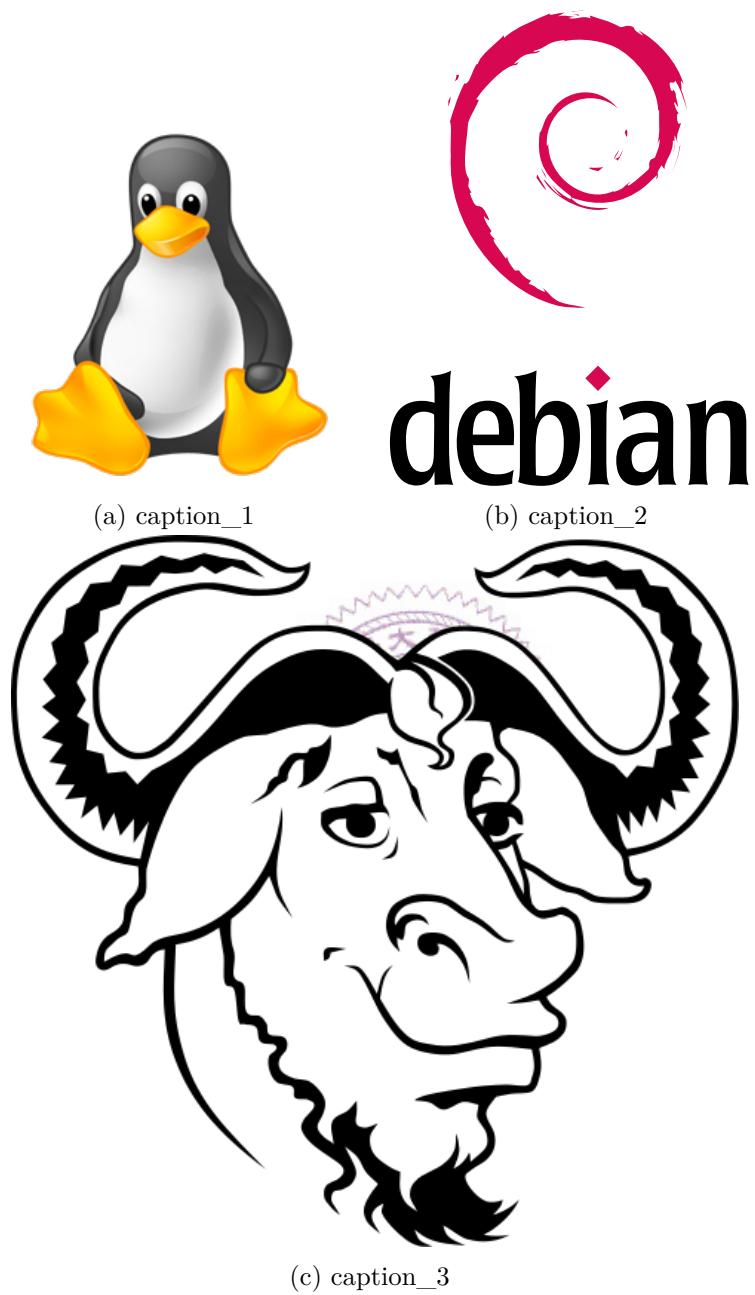


Figure 7.2: caption, use “(b)” get ID of subfigure(this ID is Debian) in caption

Chapter 8

Table

8.1 Simple table

Table 8.1: Solution

Component	Concentration(mM)
CaCl ₂	118.0

8.2 Auto break line table

short	short short
long	long long long long long long long long long



Appendix A

List of device

Table A.1: List of device

device	Model	Description
Linux	Debian 9	Best of best of best OS
Windows	10	Best of Best tool to prevent the aging of brain.





Appendix B

Solutions

B.1 The solution

Table B.1: The solution

Component	Concentration(mM)
NaCl	1.0
CaCl ₂	2.0
NaCl	1.0
CaCl ₂	2.0




Appendix C

Code

C.1 C

Code C.1: hello_world_c.c

```
1 #include <stdio.h>
2 main()
3 {
4     printf("hello, world\n");
5 }
```



C.2 Matlab

Code C.2: hello_world_matlab.m

```
1 fprintf('hello, world\n');
```

C.3 IDL

Code C.3: hello_world_idl.pro

```
1 print,"hello, world"
2
3 end
```