

修士論文

Title of your thesis

Department of Physics, A University

The Author

July 29, 2024

概要

This is the abstract of the thesis.

目次

第 1 章 Introduction	1
1.1 2 番目	2
1.2 Third page	3
第 2 章 Physics motivation	5
2.1 Unit (siunitx package)	5
2.2 Physics package	5
2.3 Overleaf support	5
第 3 章 Description of the Detector	7
第 4 章 Object definition	9
第 5 章 Signal Optimisation	11
第 6 章 Background Estimation	13
第 7 章 Systematics	15
第 8 章 Results	17
第 9 章 Conclusion	19

第 1 章

Introduction

This is the introduction.

1.1 2 番目

This is the second page of the introductory chapter.

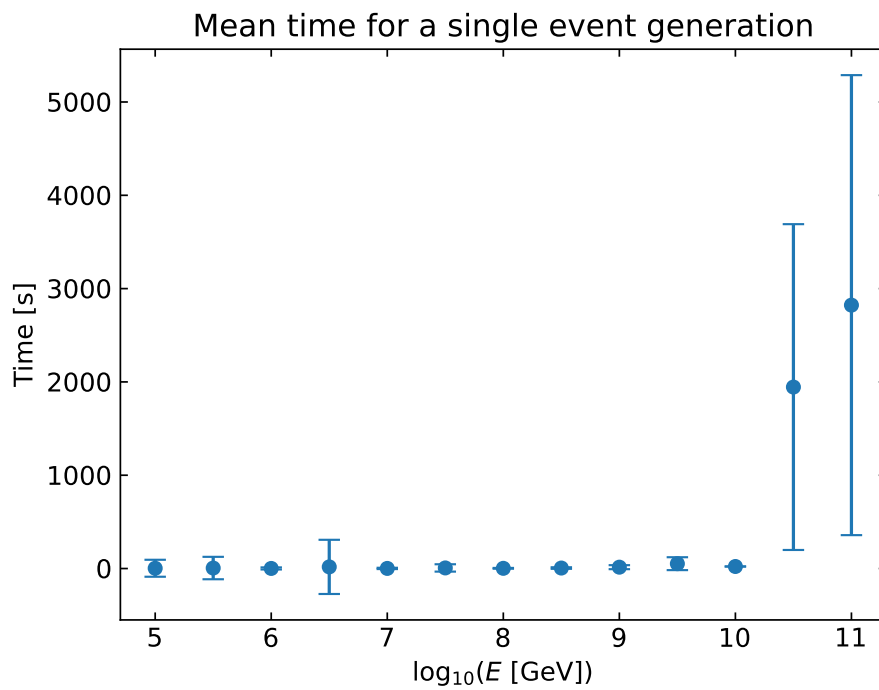
1.2 Third page

This is the third page of the introductory chapter.

You can use `\putFigure` command to put a figure into the document. The formula is following:

$$\backslash\text{putFigure}[\text{option}]\{\text{file location}\}\{\text{caption}\}\{\text{label name}\} \quad (1.1)$$

where in the option we can set the width of the figure with the unit of `\textwidth`. The example shows in 1.1. The JPEG format can also be handled (see 1.2).



1.1: PDF format example



1.2: JPEG format example

The command `\putTable` is also available. But it is less useful than the `\putFigure` since there are a lot of parameters for definition a table. Here, an example is shown. If you define a table with 2 columns and 2 rows, the command you should type is following:

```
\putTable{cc}{1 & 2\\ \midrule 3 & 4}{Example of the table}{tab:exmpl} (1.2)
```

then we get 表 1.1.

表 1.1: Example of the table

1	2
3	4

第 2 章

Physics motivation

2.1 Unit (siunitx package)

Units are important for the physics. This template includes `siunitx` package so that you can easily write units properly. You can find several descriptions for the way to use `siunitx` on the internet (for example, http://www.yamamo10.jp/yamamoto/comp/latex/make_doc/unit/index.php in Japanese).

2.2 Physics package

This template already includes the `physics` package. A helpful reference can be <https://qiita.com/HelloRusk/items/ce9f49e9b3fc0344ae23>.

2.3 Overleaf support

This template should work on the Overleaf platform. You should upload all of the files in the template and make sure the “Main document” in the Menu is `main.tex`. If you write it in Japanese, the “Compiler” in the menu should be set to LaTeX (the default is pdfLaTeX, but it is not working if the document contains non-alphabet characters).

第 3 章

Description of the Detector

The ATLAS Detector [1] is the multi-purpose detector for the experiment of the particle physics.

第 4 章

Object definition

第 5 章

Signal Optimisation

第 6 章

Background Estimation

第 7 章

Systematics

第 8 章

Results

第 9 章

Conclusion

謝辞

Thanks, many thanks for all my friends. ありがとう. 本当にありがとう. 日本語の場合は「謝辞」であることが多いが, 英語の時は追記事項 (Acknowledgment) を書くことが多い. その中での謝辞である.

Bibliography

- [1] G. Aad et al. (ATLAS Collaboration), “*The ATLAS Experiment at the CERN Large Hadron Collider*”, *JINST* **3**, S08003 (2008).

図目次

1.1 PDF format example 3

1.2 JPEG format example 3

表目次

1.1 Example of the table 4