# Novel Neural Network Techniques in Single t-Quark Production

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Masterarbeit in Physik
angefertigt im Physikalischen Institut

vorgelegt der
Mathematisch-Naturwissenschaftlichen Fakultät
der
Rheinischen Friedrich-Wilhelms-Universität
Bonn

MMM 2022

I hereby declare that this thesis was formulated by myself and that no sources or tools other than those cited were used.

Bonn, . . . . . .  . . . . . .

Date  Signature

1. Gutachter: Prof. Dr. Ian Brock
2. Gutachterin: Prof. Dr. Unknown

# Acknowledgements

I would like to thank ...

You should probably use `\chapter*` for acknowledgements at the beginning of a thesis and `\chapter` for the end.

# Contents

CHAPTER 1

# Introduction

The introduction usually gives a few pages of introduction to the whole subject, maybe even starting with the Greeks.

For more information on LaTeX and the packages that are available see for example the books of Kopka [**kopka04**] and Goossens et al [**goossens04**].

A lot of useful information on particle physics can be found in the "Particle Data Book" [1].

I have resisted the temptation to put a lot of definitions into the file `thesis_defs.sty`, as everyone has their own taste as to what scheme they want to use for names. However, a few examples are included to help you get started:

- cross-sections are measured in pb and integrated luminosity in $\mathrm{pb}^{-1}$;
- the $K_S^0$ is an interesting particle;
- the missing transverse momentum, $p_{\mathrm{T}}^{\mathrm{miss}}$, is often called missing transverse energy, even though it is calculated using a vector sum.

Note that the examples of units assume that you are using the siunitx package.

It also is probably a good idea to include a few well formatted references in the thesis skeleton. More detailed suggestions on what citation types to use can be found in the "Thesis Guide" [2]:

- articles in refereed journals [1, 3];
- a book [4];
- a PhD thesis [5] and a Diplom thesis [6];
- a collection of articles [7];
- a conference note [8];
- a preprint [9] (you can also use `@online` or `@booklet` for such things);
- something that is only available online [2].

At the end of the introduction it is normal to say briefly what comes in the following chapters.

The line at the beginning of this file is used by TeXstudio etc. to specify which is the master LaTeX file, so that you can compile your thesis directly from this file. If your thesis is called something other than `mythesis`, adjust it as appropriate.

APPENDIX A

# Useful information

In the appendix you usually include extra information that should be documented in your thesis, but not interrupt the flow.

The LaTeX WikiBook [**latexwiki**] is a useful source of information on LaTeX.

# Bibliography


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