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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" [pdg2010]. 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 pb⁻¹;
- the K_S^0 is an interesting particle;
- the missing transverse momentum, p_T^{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 [thesis-guide]:

- articles in refereed journals[pdg2010, Aad:2010ey];
- a book [Halzen:1984mc];
- a PhD thesis [tlodd:2012] and a Diplom thesis [mergelmeyer:2011];
- a collection of articles [lhc:vol1];
- a conference note [ATLAS-CONF-2011-008];
- a preprint [atlas:perf:2009] (you can also use @online or @bookletfor such things;
- something that is only available online [thesis-guide].

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

The lines at the end of this file are used by AUCTeX to specify which is the master LaTeX file, so that you can compile your thesis directly within emacs.

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Theoretical Concepts

bla bla

2.1 The Standard Modell of Partical Physics

In the appendix you usually include extra information that should be [1]. documented in your thesis, but not interrupt the flow.

Bibliography

[1] H. D. Politzer, Asymptotic freedom: An approach to strong interactions, Physics Reports **14** (1974) 129 (cit. on p. 3).

APPENDIX A

Useful information

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

List of Figures

List of Tables

Acknowledgements

I would like to thank ...

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