First document

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Contents

*sourced from overleaf.com

Abstract

This is a simple paragraph at the beginning of the document. A brief introduction about the main subject.

1 Basics

We now have a title prepared with author and date, as well as some basic section and subsection labeling.
This LaTeX document is starting to look great!

1.1 Styling

Some of the **greatest** discoveries in science were made by ***accident***.

In case you didn't catch that,

Some of the greatest *discoveries* in science were made by accident.
Some of the greatest discoveries *in science were made by accident.*
Some of the greatest *discoveries* in science were made by accident.

1.2 Graphics

The universe is immeense and it seems to be homogeneous, in a large scale, everywhere we look.

There's a picture of the moon above

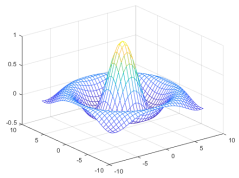

Figure 1: a nice plot

As you can see in the figure 1, the function grows near 0. Also, on page 3 is the same example.

1.3 Lists

- The individual entries are indicated with a black dot, a so-called bullet.
- The text in the entries may be of any length.

1. This is the first entry in our list
2. The list numbers increase with each entry we add

1.4 Math

In physics, the mass-energy equivalence is stated by the equation $E = mc^2$, discovered in 1905 by Albert Einstein.

The mass-energy equivalence is described by the famous equation

$$E = mc^2$$

discovered in 1905 by Albert Einstein. In natural units ($c = 1$), the formula expresses the identity

$$E = m \tag{1}$$

Subscripts in math mode are written as a_b and superscripts are written as a^b. These can be combined an nested to write expressions such as

$$T^{i_1 i_2 \ldots i_p}_{j_1 j_2 \ldots j_q} = T(x^{i_1}, \ldots, x^{i_p}, e_{j_1}, \ldots, e_{j_q})$$

We write integrals using $\int$ and fractions using $\frac{a}{b}$. Limits are placed on integrals using superscripts and subscripts:

$$\int_0^1 \frac{1}{e^x} = \frac{e-1}{e}$$

Lower case Greek letters are written as ω δ etc. while upper case Greek letters are written as Ω Δ.

Mathematical operators are prefixed with a backslash as $\sin(\beta)$, $\cos(\alpha)$, $\log(x)$ etc.

2 Document Structure and Formatting

This is the first section.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortisfacilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdietmi nec ante. Donec ullamcorper, felis non sodales...

3 Second Section

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortis facilisissem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi necante...

3.1 First Subsection

Praesent imperdietmi nec ante. Donec ullamcorper, felis non sodales...

Unnumbered Section

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortis facilisissem

4 Tables

Table 1 is an example of referenced LaTeX elements.

Col1	Col2	Col2	Col3
1	6	87837	787
2	7	78	5415
3	545	778	7507
4	545	18744	7560
5	88	788	6344

Table 1: Table to test captions and labels