First document

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Contents

1 Introduction

This is the first section.

Abstract

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

2 invisible

We have now added a title, author and date to our first LaTeX document! Some of the greatest *discoveries* in science were made by accident.

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[*]funded by the Overleaf team

2.1 First Subsection

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

Some of the greatest discoveries *in science were made by accident.* **Some of the greatest *discoveries* in science were made by accident.** The universe is immense and it seems to be homogeneous, in a large scale, everywhere we look at.

There's a picture of a galaxy above1

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

- The individual entries are indicated with a black dot, a so-called bullet.

- The text in the entries may be of any length.

Figure 1: a nice plot

1. This is the first entry in our list

2. The list numbers increase with each entry we add

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 and 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:

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

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.

3

cell1   cell2   cell3
cell4   cell5   cell6
cell7   cell8   cell9

cell1	cell2	cell3
cell4	cell5	cell6
cell7	cell8	cell9

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 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

$$E(X) = \int_{-\infty}^{\infty} x \cdot f(x)dx$$