## First document

Michael Fedell $^\ast$ 

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We now have a title prepared with author and date. This LaTeX document is starting to look great!

<sup>\*</sup>sourced from overleaf.com

Some of the **greatest** discoveries in <u>science</u> were made by *accident*. In case you didn't catch that,

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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

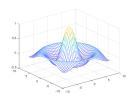


Figure 1: a nice plot

As you can see in the figure 1, the function grows near 0. Also, in the page 4 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.
- 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 an nested to write expressions such as

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

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  $\omega$   $\delta$  etc. while upper case Greek letters are written as  $\Omega$   $\Delta$ .

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