

My firstss LaTeX document

Ghribi Ouassim Abdelmalek*

April 2024

First document. This is a simple example, with no extra parameters or packages included.

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

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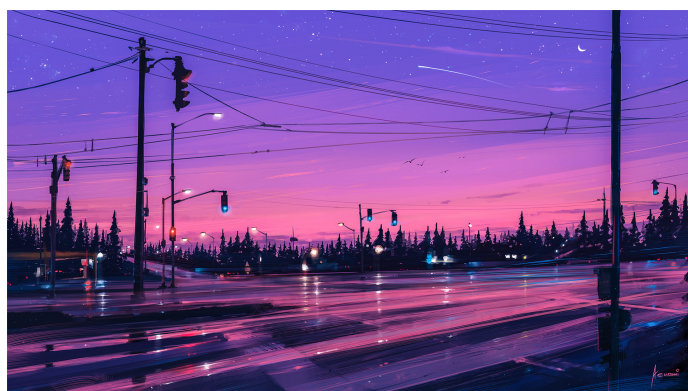


Figure 1: Hello world

As you can see in figure 1 on page 1

- First item
 - Second item
1. First enumerated item
 2. Second enumerated item

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.

*Hello there

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

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

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

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

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.

1 First example

The well-known Pythagorean theorem $x^2 + y^2 = z^2$ was proved to be invalid for other exponents, meaning the next equation has no integer solutions for $n > 2$:

$$x^n + y^n = z^n$$

2 Second example

This is a simple math expression $\sqrt{x^2 + 1}$ inside text. And this is also the same: $\sqrt{x^2 + 1}$ but by using another command.

This is a simple math expression without numbering

$$\sqrt{x^2 + 1}$$

separated from text.

This is also the same:

$$\sqrt{x^2 + 1}$$

... and this:

$$\sqrt{x^2 + 1}$$