

LaTeX (LAH-tekh) Tutorial

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1 Examples of LaTeX coding for future use

1.1 To keep hierarchy

1.1.1 Paragraph writing

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1.2 *Not indented*

Starts as left as possible Not indented Not indented Not indented

2 Highlighting and footnotes

You can make words **bold**, *italicise* them, underline words or **make them stand out regardless of the surrounding**. You can break a line mid sentence and make footnotes like this ¹.

3 Equations

3.1 As part of text

In total 85 distinct galaxies were identified in the Hubble Deep Field image provided, the list of which can be found in Appendix B at the end of this report. Poisson statistics states that the error in the number of galaxies counted (N_x) is simply the root of the count ($\sqrt{N_x}$), this can be represented as a percentage by the following equation, $N_x^2 + N^2$.

3.2 In the middle, not numbered

$$\alpha\beta \times \frac{2G}{x^2 B_n}$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a} + \sin x$$

$$\text{mag} = 5 \times \log_{10} \left(\frac{D_l}{10} \right) + M_{\text{corr}}$$

¹a footnote

3.2.1 And in the middle, numbered

$$A = bx + 24 \times F_x \quad (1)$$

4 Adding images

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there.

4.1 Lonely image



Figure 1: A visualisation of a frog.

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4.1.1 Images side by side



Figure 2: first figure



Figure 3: second figure

5 Citing and referencing

5.1 Referencing figures and equations

Expression $4 \times 3 = G \times x$ naturally follows from Eq 1, and both of these things have a lot to do with Fig 4.

5.2 Citing a paper

This statement has a citation at the end of it [Koefoed-Johnses and Ussing \[1958\]](#), and this one has two [Koefoed-Johnses and Ussing \[1958\]](#), [Tuttle et al. \[1982\]](#). A citation with parenthesis is sure to follow [\[Siddiqi et al., 2004\]](#).

6 Tables

Case	Ar	H	He
1	50	837	970
2	47	877	230
3	31	25	415
4	35	144	2356
5	45	300	556

Table 1: Imaginary experiment results.

7 Listing things

7.1 Un-ordered list

- One
- Two
- Three

7.2 Ordered and nested lists

1. One
 - (a) Two
 - (b) Three
 - (c) Four
2. Five
3. Six

8 Example of symbol in section heading below

8.1 Lyman- α

Example of an unnumbered section

It won't appear in the table of contents

9 Columns

9.1 Two Columns

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9.1.1 A picture in a multi-column environment



Figure 4: A serious frog.

9.2 Three Columns

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tricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

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