

L^AT_EX style manual

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1 How to read this manual

If you are looking at the formatted output (pdf, ps, *etc.*) of this file, then you should also simultaneously look at the T_EX source. Conversely, if you are looking at the T_EX source, then you have to look at the formatted version at the same time.

2 Keeping track: version numbers

Always insert the date and your name into the title material of the document. Putting your name there makes you publicly responsible for the contents. Putting the date keeps track of the version, in case there are updates. Another important aspect of version control is to keep a numbered series of files for every major revision step in the document development process. This is version 1.01 of this manual.

3 Mind your language

Always use a spell-checker. The best time to do this is just before you send the manuscript to someone else.

4 Automate: use macros

For symbols that you use often in a document, like the word “formulæ” here, define a macro. A macro allows you to change a definition without embarking on a search-and-destroy mission.

5 On punctuation

The T_EX document preparation system is intelligent enough to tweak spacings before and after punctuation marks. The T_EXbook suggests that one have a space *after* a punctuation mark, but not *before*. In other words, avoid that, but follow this.

6 Fine points about font changes

When moving from one *font* to another, understand that there are questions of spacing which need fine techniques like that shown in the L^AT_EX source file *here*.

Be aware of the difference between *slant* and *italics*.

Note that font in math text, like mv^2/r is different from that outside: m, v and r. So, be careful to use *m*, *v* and *r* instead.

7 Mathematics

7.1 In-line formulæ

In-line formulæ must be written in the form $a = (\tan u - u)/u$ and not in the form $a = \frac{\tan u - u}{u}$. More complicated expressions should be displayed as equations and not in-line formulæ. Definitions which will be used later should also be put into displayed equations.

7.2 Aesthetics of displayed equations

Occasionally it is better to collect two formulæ together into one line of a displayed equation—

$$\mathbf{r}_{ij} = \mathbf{r}_i - \mathbf{r}_j, \quad \text{and} \quad \mathbf{r}_{k,ij} = \mathbf{r}_k - \frac{1}{2}(\mathbf{r}_i + \mathbf{r}_j). \quad (1)$$

Eq. (1) looks better than

$$\mathbf{r}_{ij} = \mathbf{r}_i - \mathbf{r}_j, \tag{2}$$

$$\mathbf{r}_{k,ij} = \mathbf{r}_k - \frac{1}{2}(\mathbf{r}_i + \mathbf{r}_j). \tag{3}$$

The array eqs. (2,3) also demonstrates how to line up equations. Such lining up looks better than the random results of using two separate equations, as below,

$$\mathbf{r}_{ij} = \mathbf{r}_i - \mathbf{r}_j, \tag{4}$$

$$\mathbf{r}_{k,ij} = \mathbf{r}_k - \frac{1}{2}(\mathbf{r}_i + \mathbf{r}_j). \tag{5}$$

7.3 Automate: use labels

Another thing to note in these examples is that you should never write equation numbers explicitly in the text; use a label for each equation and refer to the label in the text. Failure to do this is the cause of many wasted man-hours in search-and-destroy operations every time you insert or delete an equation. Notice that the logic of using labels is very similar to the logic of using macros (Section 4).