

Example of L^AT_EX document

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Abstract

This article demonstrates usage of basic L^AT_EX features.

1 Automatic paragraph formatting

This is paragraph 1.

To start a new paragraph, simply leave one or more blank lines. L^AT_EX will do the indenting automatically. L^AT_EX automatically indents the first line in all paragraphs except the first in a section.

It doesn't matter how many spaces you leave in between words or where you break lines—L^AT_EX considers a carriage return (where you pressed “Enter”) as just another space between words.

2 Special characters in L^AT_EX

The following characters are special codes in L^AT_EX: $\&$, $\$$, $\%$, $_$, $\{$, $\}$, $\#$, and $\:$. To print one of these characters literally, you must put a backslash before it. The backslash itself obviously also is a special character.

2.1 $\%$

The percent sign is used to insert comments in a `.tex` file. It tells L^AT_EX to ignore everything that comes after it on the line. My most common error in L^AT_EX is to forget to put the backslash before the omitted from the output.

3 Mathematical expressions

Mathematical expressions may be included in the text of a paragraph by putting a dollar sign at the beginning and the end of each, like this: $e = mc^2$. The special backslash character is printed with \backslash .

Alternatively, a mathematical expression may be set off on its own line like this:

$$e = mc^2$$

Also, L^AT_EX can number equations and keep track of the numbering for you, like this:

$$e = mc^2 \tag{1}$$

4 Using labels

Because we have used labels on our sections and equation, we can refer to them without having to remember the numbers ourselves. For example, equation (1) appeared in section 3. This capability is particularly handy when we add sections or equations, or reorganize a document.

5 Environments

An *environment* is a section of a L^AT_EX document that is processed in a special way. Usually the section begins with

```
\begin{ < environment name > }
```

and ends with

```
\end{ < environment name > }
```

5.1 Lists

L^AT_EX has two list environments:

- bulleted lists
- numbered lists
 1. differ from bulleted lists in the environment name
 2. lists can be nested within lists

5.2 Tables

The `tabulate` environment formats the rows and columns of tables while the `table` environment provides captions, that is:

| environment name | function |
|----------------------|---|
| <code>tabular</code> | define rows, columns, titles |
| <code>table</code> | add captions; make environment “floating” |

Table 1: Environments for Tables

Options concerning table placement may appear in square brackets after the environment name `table`. The choices are:

- `[h]` — here (where typed in document)
- `[t]` — top of page
- `[b]` — bottom of page
- `[p]` — on separate page with other floaters