i𝑳ᴬT𝑬X: Minimal LaTeX Templates

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Contents

⬦ 1   Packages

⬦ 1.1   amsmath - AMS mathematical facilities for LaTeX

⬦ 1.2   amssymb

⬦ 1.3   amsthm - Typesetting theorems (AMS style)

⬦ 1.4   array - Extending the array and tabular environments

⬦ 1.5   babel - Multilingual support for LaTeX, LuaLaTeX, XeLaTeX, and Plain TeX

⬦ 1.6   blindtext - Producing 'blind' text for testing

Listing 1.

```
1  \blindmathtrue
2  \blindtoctrue
3  \Blinddocument
```

⬦ 1.7   booktabs - Publication quality tables in LaTeX

Listing 2.

```
1  \begin{tabular}{@{}llr@{}} \toprule
2    \multicolumn{2}{c}{Item}              \\ \cmidrule(r){1-2}
3    Animal     & Description & Price (\$) \\ \midrule
4    Gnat       & per gram    & 13.65      \\
5               & each        & 0.01       \\
6    Gnu        & stuffed     & 92.50      \\
7    Emu        & stuffed     & 33.33      \\
8    Armadillo  & frozen      & 8.99       \\ \bottomrule
9  \end{tabular}
```

	Item	
Animal	Description	Price ($)
Gnat	per gram	13.65
	each	0.01
Gnu	stuffed	92.50
Emu	stuffed	33.33
Armadillo	frozen	8.99

⬦ 1.8   caption - Customising captions in floating environments

◈ 1.9 cleveref - Intelligent cross-referencing

Listing 3.

```
1  \cref{demo:cleveref}
```

listing 3

◈ 1.10 enumitem - Control layout of itemize, enumerate, description

◈ 1.11 esint - Extended set of integrals for Computer Modern

Listing 4.

```
1  \begin{equation*}
2    \begin{array}{l}
3      \int                  \\
4      \iint                 \\
5      \iiint                \\
6      \iiiint               \\
7      \idotsint             \\
8      \oint                 \\
9      \oiint                \\
10     \varoiint             \\
11     \sqint                \\
12     \sqiint               \\
13     \ointctrclockwise     \\
14     \ointclockwise        \\
15     \varointclockwise     \\
16     \varointctrclockwise  \\
17     \fint                 \\
18     \landupint            \\
19     \landdownint          \\
20   \end{array}
21 \end{equation*}
```

$$\int$$
$$\iint$$
$$\iiint$$
$$\iiiint$$
$$\int\cdots\int$$
$$\oint$$
$$\oiint$$
$$\oiint$$
$$\sqint$$
$$\sqiint$$
$$\ointctrclockwise$$
$$\ointclockwise$$
$$\varointclockwise$$
$$\varointctrclockwise$$
$$\fint$$
$$\landupint$$
$$\landdownint$$

◈ 1.12 etoolbox - e-TeX tools for LaTeX

◈ 1.13 fancyhdr - Extensive control of page headers and footers in LaTeX2ε

◈ 1.14 float - Improved interface for floating objects

Listing 5.

```
1  \begin{figure}[H]
2    \centering
3    \includegraphics{example-image}
4    \caption{}
5  \end{figure}
```
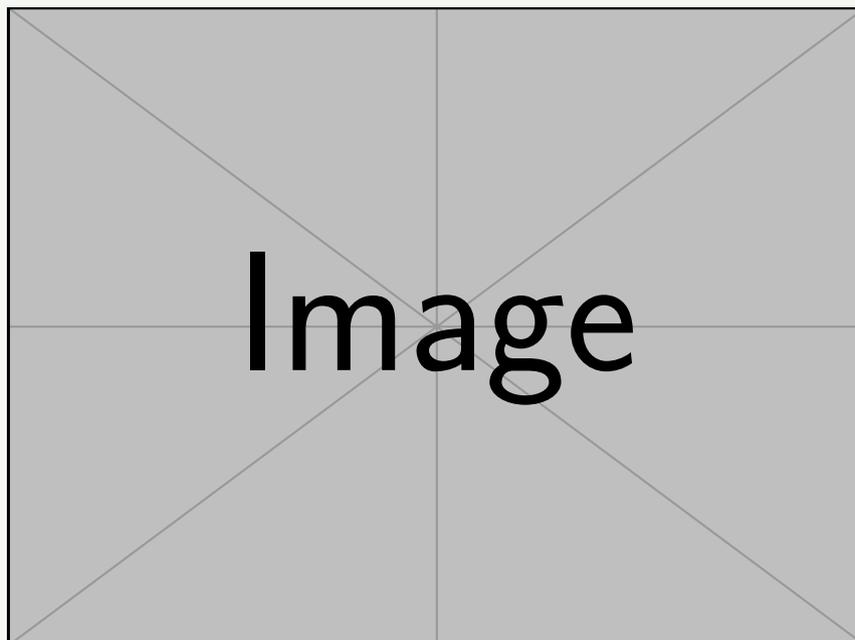
Figure 1

◈ 1.15   fontspec - Advanced font selection in XeLaTeX and LuaLaTeX

◈ 1.16   geometry - Flexible and complete interface to document dimensions

Listing 6.

```
\geometry{
  hmargin = 20mm,
  paper   = a4paper,
  vmargin = 25mm,
}
```

◈ 1.17   graphicx - Enhanced support for graphics

listing 5

◈ 1.18   hyperref - Extensive support for hypertext in LaTeX

◈ 1.19   import - Establish input relative to a directory

Listing 7.

```
\import{<full-path>}{<file>}
\subimport{<relative-path>}{<file>}
```

◈ 1.20   kvoptions - Key value format for package options

⬦ 1.21   lastpage - Reference last page for Page N of M type footers

> **Listing 8.**
>
> 1 `Page \thepage{} of \pageref{LastPage}`   Page 4 of 7

⬦ 1.22   lipsum - Easy access to the Lorem Ipsum and other dummy texts

> **Listing 9.**
>
> 1 `\lipsum[1]`
>
> Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

⬦ 1.23   mathtools - Mathematical tools to use with amsmath

⬦ 1.24   microtype - Subliminal refinements towards typographical perfection

⬦ 1.25   multicol - Intermix single and multiple columns

⬦ 1.26   multirow - Create tabular cells spanning multiple rows

⬦ 1.27   mwe - Packages and image files for MWEs

listing 5

⬦ 1.28   physics - Macros supporting the Mathematics of Physics

⬦ 1.29   siunitx - A comprehensive (SI) units package

> **Listing 10. Numbers**
>
> ```
> 1  \begin{tabular}{l}
> 2    \num{123}              \\        123
> 3    \numlist{10;30;50;70} \\        10, 30, 50 and 70
> 4    \numproduct{10 x 30}  \\        10 × 30
> 5    \numrange{10}{30}     \\        10 to 30
> 6  \end{tabular}
> ```

Listing 11. Angles

```
1  \ang{1;2;3}
```

$1°2'3''$

Listing 12. Units

```
1  \begin{tabular}{l}
2    \unit{kg.m/s^2}                    \\
3    \SI{1.23}{J.mol^{-1}.K^{-1}}       \\
4    \qtylist{10;30;45}{\metre}         \\
5    \qtyproduct{10 x 30 x 45}{\metre} \\
6    \qtyrange{10}{30}{\metre}
7  \end{tabular}
```

$\mathrm{kg\,m/s^2}$

$1.23\,\mathrm{J\,mol^{-1}\,K^{-1}}$

$10\,\mathrm{m}$, $30\,\mathrm{m}$ and $45\,\mathrm{m}$

$10\,\mathrm{m} \times 30\,\mathrm{m} \times 45\,\mathrm{m}$

$10\,\mathrm{m}$ to $30\,\mathrm{m}$

Listing 13. Tabular Numbers

```
1  \begin{tabular}{c} \toprule
2    Some Values      \\ \midrule
3    \tablenum{12.34}  \\
4    \tablenum{975.31} \\
5    \tablenum{44.268} \\ \bottomrule
6  \end{tabular}
```

Some Values
12.34
975.31
44.268

◈ 1.30   subcaption - Support for sub-captions

◈ 1.31   tabularx - Tabulars with adjustable-width columns

◈ 1.32   tasks - Horizontally columned lists

Listing 14.

```
1  \begin{tasks}(4)
2    \task the first
3    \task the second
4    \task the third
5    \task the fourth
6  \end{tasks}
```

a) the first   b) the second   c) the third   d) the fourth

◈ 1.33   tcolorbox - Coloured boxes, for LaTeX examples and theorems, etc

Listing 15.

```
1  \begin{tcolorbox}
2    This is a \textbf{tcolorbox}.
3  \end{tcolorbox}
```

This is a **tcolorbox**.

Listing 16.

```
1  \begin{thm}{Theorem Title}{theorem-label}
2    This is \cref{thm:theorem-label}.
3  \end{thm}
```

Theorem 1.1: Theorem Title

This is theorem 1.1.

Listing 17.

```
1  \begin{lem}{Lemma Title}{lemma-label}
2    This is \cref{lem:lemma-label}.
3  \end{lem}
```

Lemma 1.1: Lemma Title

This is lemma 1.1.

1.34   ulem - Package for underlining

Listing 18.

```
1  \begin{tabular}{l}
2    \uline{uline}          \\
3    \uuline{uuline}        \\
4    \uwave{uwave}          \\
5    \sout{sout}            \\
6    \xout{xout}            \\
7    \dashuline{dashuline} \\
8    \dotuline{dotuline}
9  \end{tabular}
```

uline

uuline

uwave

~~sout~~

xout

dashuline

dotuline

1.35   xcolor - Driver-independent color extensions for LaTeX and pdfLaTeX

Listing 19.

```
1  \textcolor{red}{red}
2  \fcolorbox{gray}{yellow}{test}
```

red test

1.36   xkeyval - Extension of the keyval package

1.37   xparse - A generic document command parser