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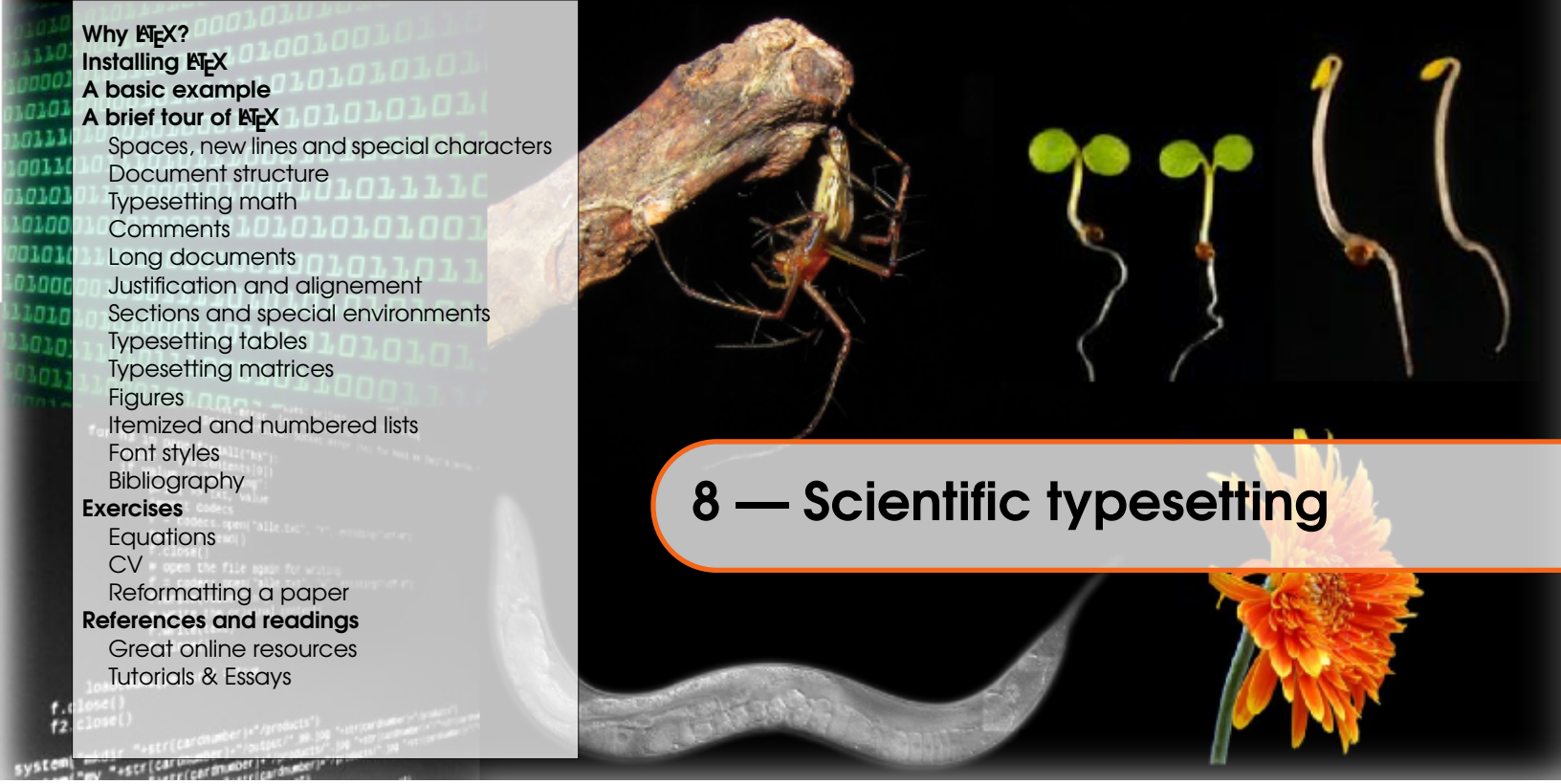


8 — Scientific typesetting

8.1 Why LaTeX?

In your research, you will produce a number of documents: papers, reports and – most importantly – your thesis. These documents can be written using a WYSIWYG (What You See Is What You Get) editor (e.g., MS Word). However, an alternative – especially suited for scientific publications – is to use LaTeX. In LaTeX, the document is simply a text file (`.tex`) containing your text formatted using markups (like in an HTML document). The file is then "compiled" (like the source code of a programming language) into a file – typically `.pdf`. The main advantages of using LaTeX are the following:

- The input is a text file. Hence, it is small and very portable. LaTeX compilers are freely available for all architectures. Therefore, you will obtain exactly the same result on any computer (this is not true for Word). Also, text files are great if you're using version control!
- LaTeX produces beautifully typeset documents. For example, these notes have been written in LaTeX. The mathematical formulas look much nicer than in other systems, and it is quite easy to create highly-complex mathematical expressions. In general, documents produced in LaTeX have a "professional look" that is difficult to obtain otherwise.
- LaTeX is very stable. The current version of LaTeX hasn't basically changed since 1994! This means that you will be able to access your text forever. In comparison, Microsoft issued 9 major versions of Word since 1994.
- LaTeX is free.
- Given the stability and smaller file sizes, LaTeX is the best choice for lengthy and complex documents (like your thesis). You can organize a long manuscript in separate files (i.e. chapters) that compiles as one document.
- Many journals provide LaTeX templates, making the formatting of your manuscripts much quicker. It is very easy to move between two completely different styles. Bibliographic styles are also available: no need for EndNote or other bibliographic software. You can export bibliographies in BibTeX (the bibliographic style of LaTeX) from Google Scholar, Zotero, CiteULike, Mendeley, Scopus, Web Of Science and others.

- On-line, freely available books and manuals are available. The number of users is such that any problem you might have has been already solved and the solution can be found with a Google search.

Of course, there are also a number of disadvantages:

- It has a steeper learning curve.
- It is quite difficult to manage revisions with multiple authors (possibly, the most annoying problem) – but now there are cloud-based solutions!
- Typesetting tables is quite complex.
- Floating objects (figures, tables) are set automatically which produces the professional feel of documents. However, it can be difficult to force an object to a specific place.
- It is sometimes difficult to follow precisely the instructions of publishers if they are thought for Word (e.g., LaTeX by default adjusts the number of lines on a page to look pretty, but sometimes you need an exact number of lines per page).
- Obtaining an exact word count of your compiled document (i.e. without the mark-up) can be tricky but work-arounds are available.

8.2 Installing LaTeX

In Ubuntu, to install LaTeX along with many useful packages, type the following:

```
$ sudo apt-get install texlive-full gedit-latex-plugin
            texlive-fonts-recommended latex-beamer texpower
            texlive-pictures texlive-latex-extra
            texpower-examples imagemagick
```

For Mac users, download from the site `tug.org/mactex/` a very large package containing LaTeX as well as any possible extension!

There are a number of WYSIWYG frontends to LaTeX, for example `Lyx` (`www.lyx.org`) and `TeXmacs` (`www.texmacs.org`). In Mac OSX, `TeXShop` works wonderfully, while in Windows one can install `MiKTeX`. In the rest of the chapter, we are going to use a text editor to compose simple `.tex` files.

8.3 A basic example

Open an editor and type the following in the file `FirstExample.tex`:

```
\documentclass[12pt]{article}
\title{A Simple Document}
\author{Stefano Allesina}
\date{}
\begin{document}
  \maketitle

  \begin{abstract}
  Here we type the abstract of our paper.
  \end{abstract}
```

```
12  \section{Introduction}
    And here the introduction.
14
    \section{Materials \& Methods}
16  One of the most famous equations is:
    \begin{equation}
18    E = mc^2
    \end{equation}
20  This equation was first proposed by Einstein in 1905
    \cite{einstein1905does}.
22
    \bibliographystyle{plain}
24  \bibliography{FirstBiblio}
\end{document}
```

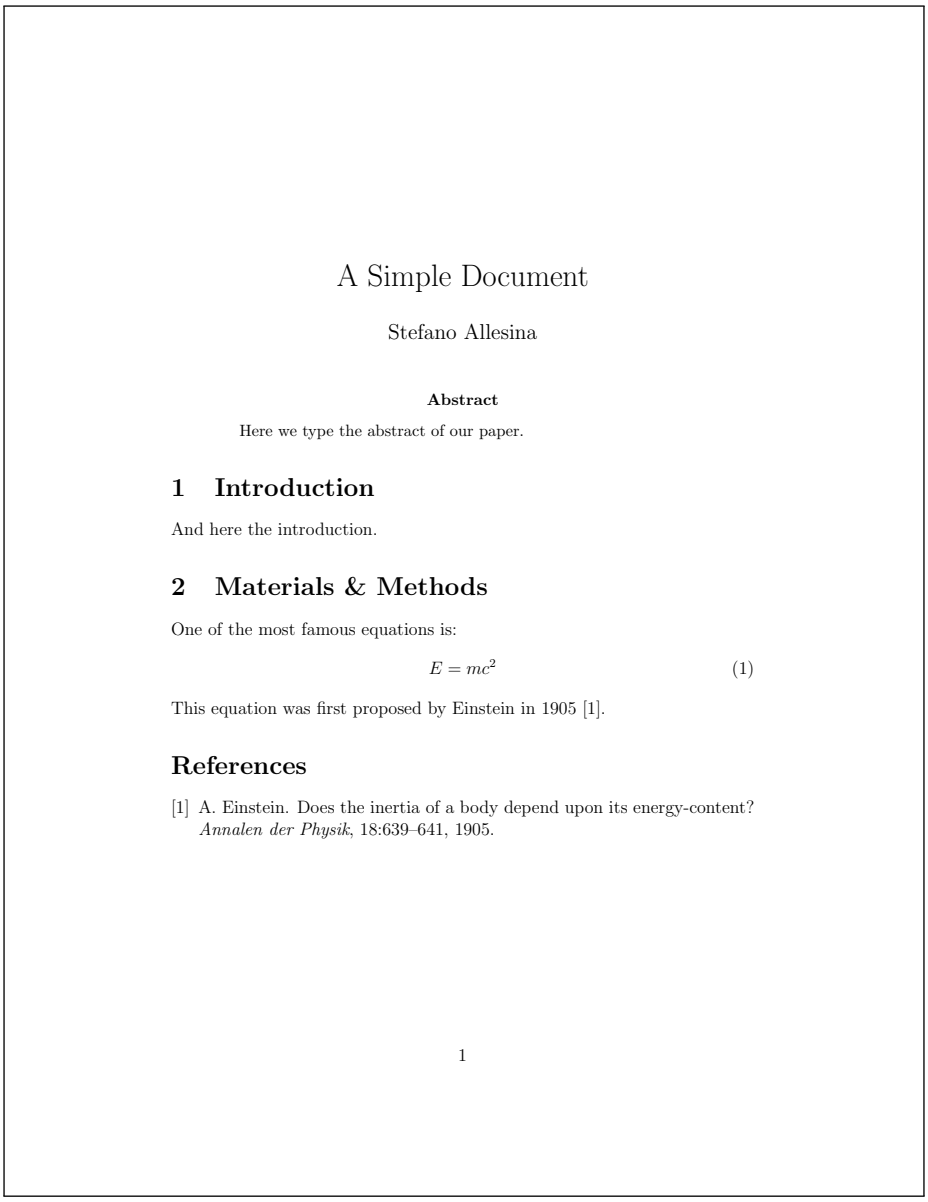
We just implemented a bibliography in our document so let's produce the corresponding `.bib` file including Einstein's paper. In Google Scholar, type "does the energy of a body einstein 1905". The paper should be the one on the top. Clicking "Cite" → "Import into BibTeX" should show the following text, that you will save in the file `FirstBiblio.bib`.

```
1 @article{einstein1905does,
    title={Does the inertia of a body depend upon its energy-content?},
3   author={Einstein, A.},
    journal={Annalen der Physik},
5   volume={18},
    pages={639--641},
7   year={1905}
}
```

Now we can create a `.pdf` of the article. In the terminal, go to the right directory and type:

```
$ pdflatex FirstExample.tex
$ pdflatex FirstExample.tex
$ bibtex FirstExample
$ pdflatex FirstExample.tex
$ pdflatex FirstExample.tex
```

This should produce the file `FirstExample.pdf` that you can open using, for example, Adobe Acrobat Reader (`evince` is available in Ubuntu, `Preview` in Mac OSX).



A Simple Document

Stefano Allesina

Abstract

Here we type the abstract of our paper.

1 Introduction

And here the introduction.

2 Materials & Methods

One of the most famous equations is:

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

This equation was first proposed by Einstein in 1905 [1].

References

[1] A. Einstein. Does the inertia of a body depend upon its energy-content? *Annalen der Physik*, 18:639–641, 1905.

1

8.4 A brief tour of LaTeX

8.4.1 Spaces, new lines and special characters

White space in your LaTeX document is not equal to the white space in your compiled typeset document: several spaces in your text editor are treated as one space in the typeset document. Several empty lines are treated as one empty line. One empty line defines a new paragraph. If you want to control the exact white space in your document, use `\vspace{}` and `\hspace{}`
Some characters have special functions in LaTeX and you need to escape them if you want to type them in your text. In order to type one # $ % ^ & _ { } ~ or \, you have to add a "backslash" in front, so typing \$ in your LaTeX document produces $ in your compiled document.

8.4.2 Document structure

In our first example article about Einstein, you might have noticed that each LaTeX command starts with a \. For example, to typeset LaTeX you have to enter `\LaTeX`. The first command of a document is always `\documentclass` defining the type of document you want to write. Examples are `article, book, report, letter`.

You can set several global options. For example, to set the size of the text to 10 points and the letter paper size, type `\documentclass[10pt,letterpaper]{article}`.

After having declared the type of document, you can specify the packages you want to use. The most useful are:

- `\usepackage{color}`: use colors for text in your document.
- `\usepackage{amsmath,amssymb}`: American Mathematical Society formats and commands for typesetting mathematics.
- `\usepackage{fancyhdr}`: fancy headers and footers.
- `\usepackage{graphicx}`: include figures in `pdf`, `ps`, `eps`, `gif`, `png`, and `jpeg`.
- `\usepackage{listings}`: typeset source code for various programming languages.
- `\usepackage{rotating}`: rotate tables and figures.
- `\usepackage{lineno}`: line numbers.

Once you selected the packages, you can start your document with `\begin{document}`, and end it with `\end{document}`.

As an example of structure of a document, take the article template provided by the journal Proceedings of the National Academy of Sciences USA (PNAS).

```
\documentclass{pnastwo}
\usepackage{amssymb,amsfonts,amsmath}
%% For PNAS Only:
\contributor{Submitted to Proceedings
of the National Academy of Sciences of the United States of America}
\url{www.pnas.org/cgi/doi/10.1073/pnas.0709640104}
\copyrightyear{2008}
\issuedate{Issue Date}
\volume{Volume}
\issuenumber{Issue Number}

\begin{document}
\title{My Title}
\author{Stefano Allesina\affil{1}{University of Chicago, Chicago, IL} \and
Luca E. Allesina\affil{2}{University of Chicago Laboratory School -- ↩
    Nursery 3, Chicago, IL}}
\maketitle
\begin{article}
\begin{abstract}
Here goes our wonderful abstract.
\end{abstract}
\keywords{term1 | term2 | term3}

```

```
%% Main text of the paper
\dropcap{I}n this work, we show how \LaTeX can be used to typeset a PNAS
    paper. Lorem ipsum dolor sit amet, consectetur adipiscing elit.
    Phasellus sodales consectetur lobortis. Proin tincidunt eros dapibus
    ipsum faucibus sed rhoncus augue mollis. In lectus velit, interdum at
    adipiscing quis, imperdiet sed justo. Praesent commodo, mi iaculis
    tincidunt mollis, sapien lectus aliquam neque, ac faucibus arcu est eu
     sem. Ut non lacus lacus, eu suscipit odio. Aliquam erat volutpat.
    Vivamus dapibus pretium nunc, et placerat turpis bibendum mollis.
    Fusce eu mi ut nulla accumsan viverra. In nulla tellus, ultrices ut
    venenatis nec, laoreet eget diam. Pellentesque aliquam facilisis
    ultricies. Vestibulum sollicitudin leo non neque vehicula a volutpat
    eros faucibus. Vestibulum nec lorem dui.

\begin{materials}
These are the materials and methods.
\end{materials}

\begin{acknowledgments}
-- text of acknowledgments here, including grant info --
\end{acknowledgments}

\end{article}
\end{document}
```

8.4.3 Typesetting math

There are two ways to display mathematical contents. First, one can produce inline mathematics (i.e., within the text). Second, one can produce stand-alone, numbered equations and formulae. For inline mathematics, the "dollar" sign flanks the mathematics to be typeset. LaTeX is then in "math mode". For example, the code:

```
The integral $\int_0^1 p^x (1-p)^y dp$ corresponds
to the defintion of a Beta function $\mathcal B(x+1, y+1)
= \Gamma(x+1)\Gamma(y+1)/\Gamma(x+y+2)$
which, in case of integer $x$ and $y$, assumes
the familiar form $x!y!/(x+y+1)!.$
```

Becomes:

The integral $\int_0^1 p^x(1-p)^y dp$ corresponds to the defintion of a Beta function $\mathcal{B}(x+1,y+1) = \Gamma(x+1)\Gamma(y+1)/\Gamma(x+y+2)$ which, in case of integer x and y, assumes the familiar form $x!y!/(x+y+1)!$

For standalone formulas, there are different options. First, one can use the special symbols \[and \]. For example, this code:

```
The most beautiful mathematical result ever produced is Euler's
```

```
identity:

\[
e^{\pi i} + 1 = 0
\]
```

Becomes:
The most beautiful mathematical result ever produced is Euler's identity:

$$e^{\pi i} + 1 = 0$$

If we want to have numbered equations (almost always a great idea), LaTeX provides the `equation` environment:

```
A tricky integral

\begin{equation}
\int_0^1 \left(\ln \left( \frac{1}{x} \right)
\right)^y dx = y!
\end{equation}
```

Becomes:
A tricky integral

$$\int_0^1 \left(\ln\left(\frac{1}{x}\right)\right)^y dx = y! \tag{8.1}$$

LaTeX has a full set of mathematical symbols and operators:

```
You can typeset limits and summations, multiple subscripts and
superscripts

\begin{equation}
\lim_{x \to \infty}, \sum_{i=1}^{\infty},
x^{y^{z^{2k}}}, x_{y_{z^2}}
\end{equation}

\ldots Greek letters

$\alpha, \beta, \rho, \Phi,
\lambda^\Gamma, \Sigma, \Theta$

\ldots fractions

\[a = \frac{b c^2}{\frac{x}{y \frac{k}{\ln x}}}\]
```

```
\ldots square roots, arrows etc.
\[
\sqrt{x},\, \sqrt[3]{x},\,
\overline{abcd}\underline{xy},\,
\widehat{abc}\overrightarrow{ky},\,
\downarrow \uparrow \rightarrow \Leftarrow,\,
\]

\ldots summations, integrals \ldots
\[\sum, \prod, \int, \iint, \iiiint, \bigcup\]

\ldots special functions
\[\cos, \exp, \min, \log, \tanh\]

\ldots and operators
\[\times, \pm, \neq, \leq,
\supset, \in, \propto\]

\ldots and so on.
```

Yielding:
You can typeset limits and summations, multiple subscripts and superscripts

$$\lim_{x\to\infty}, \sum_{i=1}^{\infty}, x^{y^{z^{2k}}}, x_{y_{z^2}} \tag{8.2}$$

... Greek letters
$\alpha, \beta, \rho, \Phi, \lambda^{\Gamma}, \Sigma, \Theta$
... fractions

$$a = \frac{bc^2}{\frac{x}{y\frac{k}{\ln x}}}$$

... square roots, arrows etc.

$\sqrt{x}$, $\sqrt[3]{x}$, $\overline{abcd}\underline{xy}$, $\widehat{abc}\overrightarrow{ky}$, $\downarrow\uparrow\rightarrow\Leftarrow$

... summations, integrals ...

$$\sum, \prod, \int, \iint, \iiiint, \bigcup$$

... special functions

$\cos, \exp, \min, \log, \tanh$

... and operators

$\times, \pm, \neq, \leq, \supset, \in, \propto$

... and so on.

8.4.4 Comments

Anything following a percentage sign % is considered a comment. To typeset the percentage sign, use the backslash \%.

8.4.5 Long documents

If you are planning to write a long document, it makes sense to split it into semi-independent files. Build a master file containing the document type, the basic setting etc. and then for example create a LaTeX file for each chapter. Finally, include (or exclude) each chapter using the `\input` command:

```
\documentclass{book}

\begin{document}

\title{\textbf{A simple book}}
\author{My Name}

\maketitle

\tableofcontents

\input{chapter1}
\input{chapter2}
\input{chapter3}
\input{chapter4}

\end{document}
```

If you choose to change the order of your chapters, the real beauty of LaTeX kicks in. You just change the order of file input and all numbering of headers, figures, citations, table of contents and whatever else in your document will magically be adjusted.

8.4.6 Justification and alignement

To break a line, use \\ (this will not start a new paragraph). To start a new page use `\newpage`. To include all floating objects (e.g., figures and tables) before starting the new page use `\clearpage`. To make sure the new page starts on an odd-numbered page (e.g., chapters), use `\cleardoublepage`.

To align the text on the left, use `\begin{flushleft}` and `\end{flushleft}`. Similarly, `\begin{flushright}` and `\end{flushright}` produce right-justified text, while `\begin{center}` and `\end{center}` will center the text on the page.

8.4.7 Sections and special environments

```
Most \LaTeX document classes contain the following structural elements:

\section{A Section}
```

```
\subsection{aaa}
\subsubsection{bbb}
\paragraph{ccc}
\subparagraph{ddd}

Additionally, the document classes \texttt{book} and \texttt{report} use

\chapter{my chapter}

To produce a table of contents, type

\tableofcontents

And to produce the title page

\maketitle

To produce a footnote, use
\footnote{text in footnote}

The abstract is typically
\begin{abstract}
here's the abstract
\end{abstract}
```

Using an asterisk within a `\section*` call (or other structural element) will leave this section without numbering. It will also not be considered for the table of contents.

8.4.8 Typesetting tables

The basic environment to typeset tables is called `tabular`:

```
\begin{tabular}{|l|r|c|}
l & stands for & left justified \\
r & stands for & right justified \\
c & stands for & centered \\
$\vert$ & produces & vertical lines\\
\hline
\textbackslash hline & produces & horizontal lines
\end{tabular}
\vspace{24pt}

How to typeset mutiple-column cells:

\vspace{0.1cm}
\begin{tabular}{|c|c|}
```

```
\hline
  element one & element two \\
\hline
  \multicolumn{2}{|c|}{spans multiple columns}\\
\hline
\end{tabular}

\vspace{0.1in}
And multiple-lines cells:

\begin{tabular}{|c|c|p{3cm}|}
\hline
short one & short one & very very very very very long one\\
\hline
\end{tabular}
\vspace{0.5cm}
```

Produces:

l	stands for	left justified
r	stands for	right justified
c	stands for	centered
|	produces	vertical lines
\hline	produces	horizontal lines

How to typeset mutiple-column cells:

element one	element two
spans multiple columns	

And multiple-lines cells:

short one	short one	very very very very very long one

In papers and other documents, however, you will typically include tables. These are "floating" bodies. Floating means that the object cannot be broken across pages, and thus LaTeX will try to place it where it looks "pretty". Each table starts with the command `\begin{table}` followed by a specifier that determines its position. You can use:

Specifier	Place the floating table
h	Here. Try to place the table where specified.
t	At the Top of a page.
b	At the Bottom of a page.
p	In a separate page.
!	Try to force the positioning (e.g., !h).

Each table can contain a caption specified by the `\caption{my caption for the table}`. For example, the following:

```
\begin{table}[h]
  \begin{center}
    \begin{tabular}{lc}
      a small & table \\
      \hline
      1 & 2 \\
      3 & 4\\
    \end{tabular}
    \caption{The caption of my small table.}
  \end{center}
\end{table}
```

Produces a small table and tries to place it here. Note that LaTeX automatically numbers the table according to the document specification (e.g., using the chapter number etc.).

a small	table
1	2
3	4

Table 8.1: The caption of my small table.

If you need a really long table (spanning multiple pages) there are specific packages such as `longtable`. Consult its manual for detailed instructions on how to use the package. Most important, let a table be pre-formatted for you whenever possible. If you want to present your R results in a LaTeX document, use the R package `xtable` or `sweave`. Combining these tools will save a lot of time. You do not need to reformat everything just because you re-analyse your data with slightly different parameters.

8.4.9 Typesetting matrices

Matrices use the `\begin{array}` environment, that is similar to the `tabular`:

```
\begin{equation}
  A = \left[
    \begin{array}{ccc}
      \alpha & \beta & \gamma\\
      a & b & c\\
      \mathfrak a & \mathfrak b & \mathfrak c
    \end{array}
    \right]
\end{equation}

\begin{equation*}
  B = \left|
  \begin{array}{cc}
```

```
    a^2 & bac \\
    \frac{g}{f} & fa^3\sqrt{b}
  \end{array}
  \right|
\end{equation*}


\begin{equation}
  C = \left.
  \left(
    \begin{array}{ccc}
      \alpha & \beta & \gamma\\
      a & b & c\\
      \mathfrak a & \mathfrak b & \mathfrak c
    \end{array}
    \right)
  \right|_{a = a_0}
\end{equation}
```

$$A = \begin{bmatrix} \alpha & \beta & \gamma \\ a & b & c \\ \mathfrak{a} & \mathfrak{b} & \mathfrak{c} \end{bmatrix} \tag{8.3}$$

$$B = \begin{vmatrix} a^2 & bac \\ \frac{g}{f} & fa^3\sqrt{b} \end{vmatrix}$$

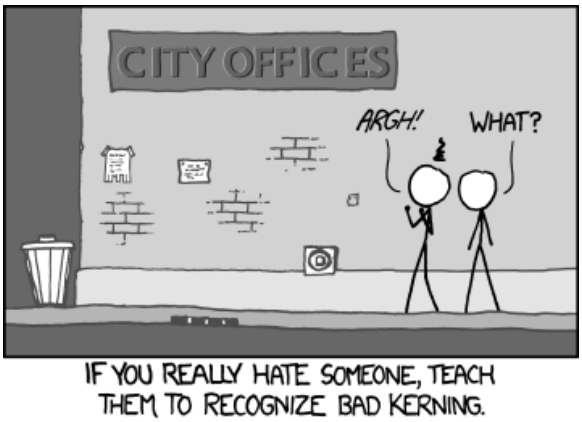
$$C = \left(\begin{array}{ccc} \alpha & \beta & \gamma \\ a & b & c \\ \mathfrak{a} & \mathfrak{b} & \mathfrak{c} \end{array} \right) \Bigg|_{a=a_0} \tag{8.4}$$

8.4.10 Figures

Figures are also floating bodies. They can be included using the `graphicx` package. Depending on the installation, you might be able include only some formats. If you followed the instructions above, you should be able to use `.pdf`, `.ps`, `.eps`, `.jpg`, `.png` among others. If you used a more restrictive installation, you might be allowed to include only `.pdf`, `.ps` and `.eps`.

```
\begin{center}
\includegraphics[width = 0.5\linewidth]{xkcd/kerning.png}
\end{center}
```

Will import the picture into the file:



Also figures support captions and are automatically numbered:

```
\begin{figure}
  \begin{center}
     \includegraphics[width=0.5\linewidth]{xkcd/kerning.png}
  \end{center}
  \caption{The caption of the figure.}
\end{figure}
```

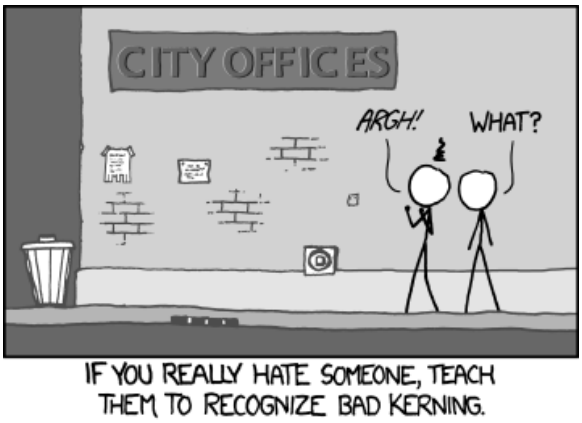
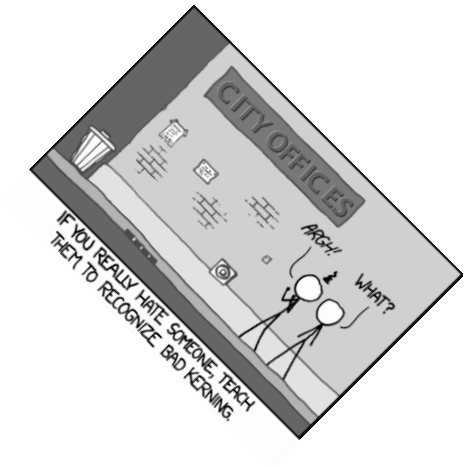


Figure 8.1: The caption of the figure.

The caption of a figure can be placed above or below the figure, depending on the position of `\caption` in relation to `\includegraphics`. Besides `width`, other parameters that can be set are: `height`, `scale`, `angle`. More options let you clip and trim the figure (see the manual). For example:

```
\begin{center}
  \includegraphics[scale=0.4, angle=-45]{xkcd/kerning.png}
\end{center}
```



8.4.11 Itemized and numbered lists

We can produce itemized or numbered lists as well as descriptions that are useful for definitions of abbreviations or glossary. Let's look at some examples:

```
\begin{itemize}
\item First item.
\item Second item.
\item[$\star$] Third item.
\item[a] Fourth item.
\end{itemize}

\begin{enumerate}
\item First.
\item Second.
\item Third.
\end{enumerate}

\begin{description}
\item[First] A short description of First.
\item[Second] A short description of Second.
\item[Third] The description of the Third element is much longer. Nothing ↩
   to worry about. \LaTeX\ will arrange everything to our liking.
\end{description}
```

Produces:

- First item.
- Second item.

⋆ Third item.

a Fourth item.

1. First.
2. Second.
3. Third.

First A short description of First.
Second A short description of Second.
Third The description of the Third element is much longer. Nothing to worry about. LaTeX will arrange everything to our liking.

8.4.12 Font styles

One often needs specific styles of a typeface such as **bold**, *italics* or changes in size. Here are some examples:

```
\begin{itemize}
\item \texttt{Typewriter like} also {\tt (but obsolete)}.
\item \textbf{Bold face} also {\bf (but obsolete)}.
\item \textit{Italics} also {\it (but obsolete)}.
\item \textsc{Small Caps} also {\sc (but obsolete)}.
\item \tiny tiny.
\item \footnotesize footnotesize.
\item \small small.
\item \large large.
\item \Large Large.
\item \normalsize normalsize.
\end{itemize}
```

Produces:

- `Typewriter like` also `(but obsolete)`.
- **Bold face** also **(but obsolete)**.
- *Italics* also *(but obsolete)*.
- SMALL CAPS also (BUT OBSOLETE).
- tiny.
- footnotesize.
- small.
- large.
- Large.
- normalsize.

Note that the size of the text (i.e., what is considered the `normalsize`) is governed by the initial choice in `documentclass`. The other sizes are changed proportionally.

8.4.13 Bibliography

There are many ways to include references and citations to your document. The best option is to use BibTeX to manage bibliographies. This requires three steps:

- Build a flat-file database containing your bibliography. The file is typically generated automatically from Web of Science, Scopus, etc. or you can use the software such as BibTeX, Mendeley, Papers or EndNote to organize your bibliography and generate a `.bib` file.
- Choose a BibTeX style for your references. Files specifying the citation style are available for most journals.
- Cite the references in your text.

Because this is easier done than said, we're going to explore the features using the templates provided by PLoS and Elsevier.

8.5 Exercises

8.5.1 Equations

Open a new LaTeX document, and typeset the following equations (make sure to include the packages `amsmath` and `amssymb`):

$$a = \sigma\sqrt{SC}(1-\mathbb{E}^2(|X|)/\sigma^2)$$

$$\sum_{j=1}^{S} M_{ij} \approx -d + (S-1)\mathbb{E}(M_{ij})_{i\neq j} = -d + (S-1)\cdot C \cdot \mathbb{E}(|X|)$$

$$L(A|q,G) = \prod_{i=1}^{S}\prod_{j=1}^{S} p_{i,j}^{A_{i,j}}(1-p_{i,j})^{1-A_{i,j}} = \prod_{k=1}^{\gamma}\prod_{l=1}^{\gamma} q_{k,l}^{L_{k,l}}(1-q_{k,l})^{Z_{k,l}} \tag{8.5}$$

$$P(M_1|A) = \frac{P(A|M_1)P(M_1)}{P(A)} \tag{8.6}$$

$$P(A|M_i) = \mathscr{M}_i = \int P(A|M_i,\Theta_i)P(\Theta_i|M_i)d\Theta_i \tag{8.7}$$

$$\mathscr{M}_{Group|G} = \int_0^1\int_0^1\cdots\int_0^1 \prod_i^{\gamma}\prod_j^{\gamma} p_{i,j}^{L_{i,j}}(1-p_{i,j})^{Z_{i,j}}dp_{i,j}$$

8.5.2 CV

Build your CV in LaTeX using the `moderncv` style provided in the repository.

8.5.3 Reformatting a paper

In the folder `NestednessEigenvalues` you find a manuscript of Staniczenko *et al.* formatted for Nature Communications. Reformat it in the style of PLoS Computational Biology. (Optional: download the syle files and format it for PNAS).

8.6 References and readings

8.6.1 Great online resources

The Visual LaTeX FAQ: sometimes it is difficult to describe what you want to do!
`http://get-software.net/info/visualFAQ/visualFAQ.pdf`

Drawing formulas by hand and converting them into LaTeX
http://webdemo.visionobjects.com

Online equation editors
http://www.sciweavers.org/free-online-latex-equation-editor
http://rogercortesi.com/eqn/

From (semi-)natural language to LaTeX
http://www.math.missouri.edu/~stephen/naturalmath/

University of Chicago Dissertation Template
https://wiki.uchicago.edu/display/DissertationTemplate

Other disseration templates:
http://latexforhumans.wordpress.com/

Cloud-based collaborations using LaTeX
https://www.writelatex.com/
https://www.sharelatex.com

8.6.2 Tutorials & Essays

Minimal introduction to LaTeX.
orion.math.iastate.edu/burkardt/latex_intro/latex_intro.html

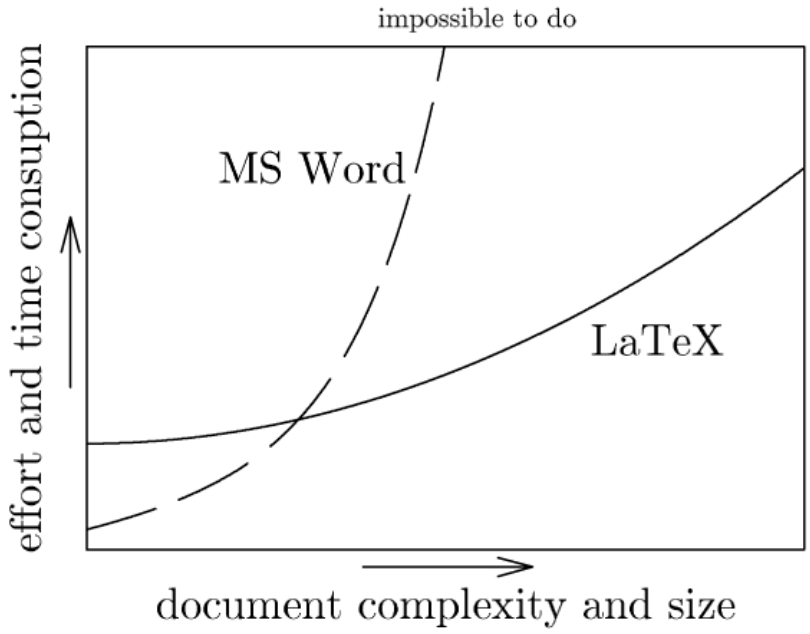
A (Not So) Short Introduction to LaTeX.
www.ctan.org/tex-archive/info/lshort/english/

The Beauty of LaTeX.
http://nitens.org/taraborelli/latex

Word vs. LaTeX:
http://www.streamtoolsonline.com/word-v-latex.html
http://3monththesis.com/writing-a-thesis-word-or-latex/
http://www.andy-roberts.net/writing/latex/benefits

Beautiful presentations in LaTeX:
www.stat.berkeley.edu/~luis/seminar/BeamerPres110128_Miki.pdf

Bibliographies for biological journals
www.lecb.ncifcrf.gov/~toms/latex.html



http://www.pinteric.com/miktex.html