

Bash Reference Card

相关文件

.bashrc	Default is two-sided.
.bash_profile	divisions.
.bash_history	divisions.

Common documentclass options

10pt/11pt/12pt	Font size.
letterpaper/a4paper	Paper size.
twocolumn	Use two columns.
twoside	Set margins for two-sided.
landscape	Landscape orientation. Must use dvips -t landscape.
draft	Double-space lines.
Usage: <code>\documentclass[<i>opt,opt</i>]{<i>class</i>}</code> .	

Packages

fullpage	Use 1 inch margins.
ansize	Set margins: <code>\marginsize{l}{r}{t}{b}</code> .
multicol	Use <i>n</i> columns: <code>\begin{multicols}{n}</code> .
latexsym	Use L ^A T _E X symbol font.
graphicx	Show image: <code>\includegraphics[width=<i>x</i>]{<i>file</i>}</code> .
url	Insert URL: <code>\url{<i>http://...</i>}</code> .
Use before <code>\begin{document}</code> . Usage: <code>\usepackage{<i>package</i>}</code>	

Title

<code>\author{<i>text</i>}</code>	Author of document.
<code>\title{<i>text</i>}</code>	Title of document.
<code>\date{<i>text</i>}</code>	Date.
These commands go before <code>\begin{document}</code> . The declaration <code>\maketitle</code> goes at the top of the document.	

Miscellaneous

<code>\pagestyle{empty}</code>	Empty header, footer and no page numbers.
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Document structure

<code>\part{<i>title</i>}</code>	<code>\subsubsection{<i>title</i>}</code>
<code>\chapter{<i>title</i>}</code>	<code>\paragraph{<i>title</i>}</code>
<code>\section{<i>title</i>}</code>	<code>\subparagraph{<i>title</i>}</code>
<code>\subsection{<i>title</i>}</code>	
Section commands can be followed with an *, like <code>\section*{<i>title</i>}</code> , to suppress heading numbers.	
<code>\setcounter{secnumdepth}{<i>x</i>}</code> suppresses heading numbers of depth > <i>x</i> , where <code>\chapter</code> has depth 0.	

Text environments

<code>\begin{comment}</code>	Comment block (not printed).
<code>\begin{quote}</code>	Indented quotation block.
<code>\begin{quotation}</code>	Like quote with indented paragraphs.
<code>\begin{verse}</code>	Quotation block for verse.

Lists

<code>\begin{enumerate}</code>	Numbered list.
<code>\begin{itemize}</code>	Bulleted list.
<code>\begin{description}</code>	Description list.
<code>\item <i>text</i></code>	Add an item.
<code>\item[<i>x</i>] <i>text</i></code>	Use <i>x</i> instead of normal bullet or number. Required for descriptions.

References

<code>\label{<i>marker</i>}</code>	Set a marker for cross-reference, often of the form <code>\label{sec:item}</code> .
<code>\ref{<i>marker</i>}</code>	Give section/body number of marker.
<code>\pageref{<i>marker</i>}</code>	Give page number of marker.
<code>\footnote{<i>text</i>}</code>	Print footnote at bottom of page.

Floating bodies

<code>\begin{table}[<i>place</i>]</code>	Add numbered table.
<code>\begin{figure}[<i>place</i>]</code>	Add numbered figure.
<code>\begin{equation}[<i>place</i>]</code>	Add numbered equation.
<code>\caption{<i>text</i>}</code>	Caption for the body.
The <i>place</i> is a list valid placements for the body. t=top, h=here, b=bottom, p=separate page, !=place even if ugly. Captions and label markers should be within the environment.	

Text properties

Font face

Command	Declaration	Effect
<code>\textrm{<i>text</i>}</code>	<code>\rmfamily <i>text</i></code>	Roman family
<code>\textsf{<i>text</i>}</code>	<code>\sffamily <i>text</i></code>	Sans serif family
<code>\texttt{<i>text</i>}</code>	<code>\ttfamily <i>text</i></code>	Typewriter family
<code>\textmd{<i>text</i>}</code>	<code>\mdseries <i>text</i></code>	Medium series
<code>\textbf{<i>text</i>}</code>	<code>\bfseries <i>text</i></code>	Bold series
<code>\textup{<i>text</i>}</code>	<code>\upshape <i>text</i></code>	Upright shape
<code>\textit{<i>text</i>}</code>	<code>\itshape <i>text</i></code>	<i>Italic shape</i>
<code>\textsl{<i>text</i>}</code>	<code>\slshape <i>text</i></code>	<i>Slanted shape</i>
<code>\textsc{<i>text</i>}</code>	<code>\scshape <i>text</i></code>	SMALL CAPS SHAPE
<code>\emph{<i>text</i>}</code>	<code>\em <i>text</i></code>	<i>Emphasized</i>
<code>\textnormal{<i>text</i>}</code>	<code>\normalfont <i>text</i></code>	Document font
<code>\underline{<i>text</i>}</code>		<u>Underline</u>
The command (tttt) form handles spacing better than the declaration (ttt) form.		

Font size

<code>\tiny</code>	tiny	<code>\Large</code>	Large
<code>\scriptsize</code>	scriptsize	<code>\LARGE</code>	LARGE
<code>\footnotesize</code>	footnotesize		
<code>\small</code>	small	<code>\huge</code>	huge
<code>\normalsize</code>	normalsize		
<code>\large</code>	large	<code>\Huge</code>	Huge
These are declarations and should be used in the form <code>\small ...</code> , or without braces to affect the entire document.			

Verbatim text

<code>\begin{verbatim}</code>	Verbatim environment.
<code>\begin{verbatim}*}</code>	Spaces are shown as <code>_</code> .
<code>\verb!<i>text</i>!</code>	Text between the delimiting characters (in this case ‘!’) is verbatim.

Justification

Environment	Declaration
<code>\begin{center}</code>	<code>\centering</code>
<code>\begin{flushleft}</code>	<code>\raggedright</code>
<code>\begin{flushright}</code>	<code>\raggedleft</code>

Miscellaneous

<code>\linespread{<i>x</i>}</code>	changes the line spacing by the multiplier <i>x</i> .
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Text-mode symbols

Symbols

<code>&</code>	<code>\&</code>	<code>-</code>	<code>_</code>	<code>...</code>	<code>\ldots</code>	<code>•</code>	<code>\textbullet</code>
<code>\$</code>	<code>\\$</code>	<code>^</code>	<code>\^{}{}</code>	<code> </code>	<code>\textbar</code>	<code>\</code>	<code>\textbackslash</code>
<code>%</code>	<code>\%</code>	<code>~</code>	<code>\~{}{}</code>	<code>#</code>	<code>\#</code>	<code>\$</code>	<code>\\$</code>

Accents

<code>ò</code>	<code>\`o</code>	<code>ó</code>	<code>\'o</code>	<code>ô</code>	<code>\^o</code>	<code>õ</code>	<code>\~o</code>	<code>ö</code>	<code>\=o</code>
<code>ô</code>	<code>\.o</code>	<code>ö</code>	<code>\"o</code>	<code>q</code>	<code>\c o</code>	<code>õ</code>	<code>\v o</code>	<code>ő</code>	<code>\H o</code>
<code>ç</code>	<code>\c c</code>	<code>q</code>	<code>\d o</code>	<code>q</code>	<code>\b o</code>	<code>ö</code>	<code>\t oo</code>	<code>œ</code>	<code>\oe</code>
<code>Œ</code>	<code>\OE</code>	<code>æ</code>	<code>\ae</code>	<code>Æ</code>	<code>\AE</code>	<code>å</code>	<code>\aa</code>	<code>Å</code>	<code>\AA</code>
<code>ø</code>	<code>\o</code>	<code>Ø</code>	<code>\O</code>	<code>ı</code>	<code>\l</code>	<code>Ł</code>	<code>\L</code>	<code>ı</code>	<code>\i</code>
<code>J</code>	<code>\j</code>	<code>i</code>	<code>\i</code>	<code>ı</code>	<code>\i</code>	<code>ı</code>	<code>\i</code>	<code>ı</code>	<code>\i</code>

Delimiters

<code>‘ ‘ ‘ ‘</code>	<code>{ { { {</code>	<code>[[[[</code>	<code>((((</code>	<code><</code>	<code>\textless</code>
<code>’ ’ ’ ’</code>	<code>} } } }</code>	<code>]]]]</code>	<code>))))</code>	<code>></code>	<code>\textgreater</code>

Dashes

Name	Source	Example	Usage
hyphen	-	X-ray	In words.
en-dash	--	1–5	Between numbers.
em-dash	---	Yes—or no?	Punctuation.

Line and page breaks

<code>\</code>	Begin new line without new paragraph.
<code>*</code>	Prohibit pagebreak after linebreak.
<code>\kill</code>	Don’t print current line.
<code>\pagebreak</code>	Start new page.
<code>\noindent</code>	Do not indent current line.

Miscellaneous

<code>\today</code>	December 28, 2011.
<code>\$\sim\$</code>	Prints ~ instead of <code>\~{}{}</code> , which makes ~.
<code>~</code>	Space, disallow linebreak (W.J.~Clinton).
<code>\@.</code>	Indicate that the . ends a sentence when following an uppercase letter.
<code>\hspace{l}</code>	Horizontal space of length <i>l</i> (Ex: <i>l</i> = 20pt).
<code>\vspace{l}</code>	Vertical space of length <i>l</i> .
<code>\rule{w}{h}</code>	Line of width <i>w</i> and height <i>h</i> .

Tabular environments

tabbing environment

<code>\=</code>	Set tab stop.	<code>\></code>	Go to tab stop.
Tab stops can be set on “invisible” lines with <code>\kill</code> at the end of the line. Normally <code>\</code> is used to separate lines.			

tabular environment

<code>\begin{array}[pos]{cols}</code>	
<code>\begin{tabular}[pos]{cols}</code>	
<code>\begin{tabular*}[width][pos]{cols}</code>	

tabular column specification

<code>l</code>	Left-justified column.
<code>c</code>	Centered column.
<code>r</code>	Right-justified column.
<code>p{width}</code>	Same as <code>\parbox[t]{width}</code> .
<code>@{<i>decl</i>}</code>	Insert <i>decl</i> instead of inter-column space.
<code> </code>	Inserts a vertical line between columns.

tabular elements

`\hline` Horizontal line between rows.
`\cline{x-y}` Horizontal line across columns *x* through *y*.
`\multicolumn{n}{cols}{text}`
A cell that spans *n* columns, with *cols* column specification.

Math mode

To use math mode, surround text with `$` or use `\begin{equation}`.
Superscript^{*x*} `\^{\textit{x}}` Subscript_{*x*} `_{{\textit{x}}}`
 $\frac{x}{y}$ `\frac{x}{y}` $\sum_{k=1}^n$ `\sum_{k=1}^n`
 $\sqrt[n]{x}$ `\sqrt[n]{x}` $\prod_{k=1}^n$ `\prod_{k=1}^n`

Math-mode symbols

\leq	<code>\leq</code>	\geq	<code>\geq</code>	\neq	<code>\neq</code>	\approx	<code>\approx</code>
\times	<code>\times</code>	\div	<code>\div</code>	\pm	<code>\pm</code>	\cdot	<code>\cdot</code>
\circ	<code>\circ</code>	\circ	<code>\circ</code>	\prime	<code>\prime</code>	\cdots	<code>\cdots</code>
∞	<code>\infty</code>	\neg	<code>\neg</code>	\wedge	<code>\wedge</code>	\vee	<code>\vee</code>
\supset	<code>\supset</code>	\forall	<code>\forall</code>	\in	<code>\in</code>	\rightarrow	<code>\rightarrow</code>
\subset	<code>\subset</code>	\exists	<code>\exists</code>	\notin	<code>\notin</code>	\Rightarrow	<code>\Rightarrow</code>
\cup	<code>\cup</code>	\cap	<code>\cap</code>	$ $	<code> </code>	\Leftrightarrow	<code>\Leftrightarrow</code>
\dot{a}	<code>\dot{a}</code>	\hat{a}	<code>\hat{a}</code>	\bar{a}	<code>\bar{a}</code>	\tilde{a}	<code>\tilde{a}</code>
α	<code>\alpha</code>	β	<code>\beta</code>	γ	<code>\gamma</code>	δ	<code>\delta</code>
ϵ	<code>\epsilon</code>	ζ	<code>\zeta</code>	η	<code>\eta</code>	ε	<code>\varepsilon</code>
θ	<code>\theta</code>	ι	<code>\iota</code>	κ	<code>\kappa</code>	ϑ	<code>\vartheta</code>
λ	<code>\lambda</code>	μ	<code>\mu</code>	ν	<code>\nu</code>	ξ	<code>\xi</code>
π	<code>\pi</code>	ρ	<code>\rho</code>	σ	<code>\sigma</code>	τ	<code>\tau</code>
υ	<code>\upsilon</code>	ϕ	<code>\phi</code>	χ	<code>\chi</code>	ψ	<code>\psi</code>
ω	<code>\omega</code>	Γ	<code>\Gamma</code>	Δ	<code>\Delta</code>	Θ	<code>\Theta</code>
Λ	<code>\Lambda</code>	Ξ	<code>\Xi</code>	Π	<code>\Pi</code>	Σ	<code>\Sigma</code>
Υ	<code>\Upsilon</code>	Φ	<code>\Phi</code>	Ψ	<code>\Psi</code>	Ω	<code>\Omega</code>

Bibliography and citations

When using BibTeX, you need to run `latex`, `bibtex`, and `latex` twice more to resolve dependencies.

Citation types

`\cite{key}` Full author list and year. (Watson and Crick 1953)
`\citeA{key}` Full author list. (Watson and Crick)
`\citeN{key}` Full author list and year. Watson and Crick (1953)
`\shortcite{key}` Abbreviated author list and year. ?
`\shortciteA{key}` Abbreviated author list. ?
`\shortciteN{key}` Abbreviated author list and year. ?
`\citeyear{key}` Cite year only. (1953)
All the above have an NP variant without parentheses; Ex. `\citeNP`.

BibTeX entry types

`@article` Journal or magazine article.
`@book` Book with publisher.
`@booklet` Book without publisher.
`@conference` Article in conference proceedings.
`@inbook` A part of a book and/or range of pages.
`@incollection` A part of book with its own title.
`@misc` If nothing else fits.
`@phdthesis` PhD. thesis.
`@proceedings` Proceedings of a conference.
`@techreport` Tech report, usually numbered in series.
`@unpublished` Unpublished.

BibTeX fields

`address` Address of publisher. Not necessary for major publishers.
`author` Names of authors, of format
`booktitle` Title of book when part of it is cited.
`chapter` Chapter or section number.
`edition` Edition of a book.
`editor` Names of editors.
`institution` Sponsoring institution of tech. report.
`journal` Journal name.
`key` Used for cross ref. when no author.
`month` Month published. Use 3-letter abbreviation.
`note` Any additional information.
`number` Number of journal or magazine.
`organization` Organization that sponsors a conference.
`pages` Page range (2,6,9--12).
`publisher` Publisher's name.
`school` Name of school (for thesis).
`series` Name of series of books.
`title` Title of work.
`type` Type of tech. report, ex. "Research Note".
`volume` Volume of a journal or book.
`year` Year of publication.
Not all fields need to be filled. See example below.

Common BibTeX style files

<code>abbrv</code>	Standard	<code>abstract</code>	<code>alpha</code> with abstract
<code>alpha</code>	Standard	<code>apa</code>	APA
<code>plain</code>	Standard	<code>unsrt</code>	Unsorted

The LaTeX document should have the following two lines just before `\end{document}`, where `bibfile.bib` is the name of the BibTeX file.

```
\bibliographystyle{plain}
\bibliography{bibfile}
```

BibTeX example

The BibTeX database goes in a file called `file.bib`, which is processed with `bibtex` file.

```
@String{N = {Na\-ture}}
@Article{WC:1953,
  author = {James Watson and Francis Crick},
  title = {A structure for Deoxyribose Nucleic Acid},
  journal = N,
  volume = {171},
  pages = {737},
  year = 1953
}
```

Sample LaTeX document

```
\documentclass[11pt]{article}
\usepackage{fullpage}
\title{Template}
\author{Name}
\begin{document}
\maketitle

\section{section}
\subsection*{subsection without number}
text \textbf{bold text} text. Some math:  $\$2+2=5\$$ 
\subsection{subsection}
text \emph{emphasized text} text. \cite{WC:1953}
discovered the structure of DNA.
```

```
A table:
\begin{table}[!th]
\begin{tabular}{|l|c|r|}
\hline
first & row & data \\
second & row & data \\
\hline
\end{tabular}
\caption{This is the caption}
\label{ex:table}
\end{table}
```

```
The table is numbered \ref{ex:table}.
\end{document}
```