LaTeX 2ε Cheat Sheet

http://www.ksiam.org/jksiam/latex-CFP.pdf

1 Document classes

`book` Default is two-sided.
`report` No `\part` divisions.
`article` No `\part` or `\chapter` divisions.
`letter` Letter (?).
`slides` Large sans-serif font.
`\documentclass[`*opt,opt*`]{`*class*`}` at the very beginning. Use `\begin{document}` to start and `\end{document}` to end.

Common `documentclass` options

`10pt/11pt/12pt` `letterpaper/a4paper`
`twocolumn` `twoside`
`landscape` (Must use `dvips -t landscape`).
`draft` (Double-space lines).

Packages

`fullpage` Use 1 inch margins.
`anysize` Set margins: `\marginsize{`*l*`}{`*r*`}{`*t*`}{`*b*`}`.
`multicol` Use *n* columns: `\begin{multicols}{`*n*`}`.
`latexsym` Use LaTeX symbol font.
`graphicx` Show image: `\includegraphics[width=`*x*`]{`*file*`}`.
`url` Insert URL: `\url{`*http://...*`}`.
Use `\usepackage{`*package*`}` before `\begin{document}`.

Title

`\author{`*text*`}`, `\title{`*text*`}`, `\date{`*text*`}`
These commands go before `\begin{document}`. The declaration `\maketitle` goes at the top of the document.

Miscellaneous

`\pagestyle{empty}` Empty header, footer, page number.

2 Document structure

`\part{`*title*`}`
`\chapter{`*title*`}`
`\section{`*title*`}`
`\subsection{`*title*`}`
`\subsubsection{`*title*`}`
`\paragraph{`*title*`}`
`\subparagraph{`*title*`}`
Section commands can be followed with an `*`, like `\section*{`*title*`}`, to supress heading numbers.
`\setcounter{secnumdepth}{`*x*`}` supresses heading numbers of depth $> x$, where `chapter` has depth 0.

Text environments

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

Lists

`\begin{enumerate}` Numbered list.
`\begin{itemize}` Bulleted list.
`\begin{description}` Description list. (*x* Required.)
`\item[`*x*`]` *text* *x* replaces normal number or bullet.

References

`\label{`*marker*`}` Set a marker for cross-reference.
`\ref{`*marker*`}` Give section/body number of marker.
`\pageref{`*marker*`}` Give page number of marker.
`\footnote{`*text*`}` Print footnote at bottom of page.

Floating bodies

`\begin{table}[`*place*`]` Add numbered table.
`\begin{figure}[`*place*`]` Add numbered figure.
`\begin{equation}[`*place*`]` Add numbered equation.
`\caption{`*text*`}` Caption for the body.
The *place* 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.

3 Text properties

Font face

Command	*Declaration*	*Effect*
`\textrm{`*text*`}`	`{\rmfamily` *text*`}`	Roman family
`\textsf{`*text*`}`	`{\sffamily` *text*`}`	Sans serif family
`\texttt{`*text*`}`	`{\ttfamily` *text*`}`	`Typewriter family`
`\textmd{`*text*`}`	`{\mdseries` *text*`}`	Medium series
`\textbf{`*text*`}`	`{\bfseries` *text*`}`	**Bold series**
`\textup{`*text*`}`	`{\upshape` *text*`}`	Upright shape
`\textit{`*text*`}`	`{\itshape` *text*`}`	*Italic shape*
`\textsl{`*text*`}`	`{\slshape` *text*`}`	*Slanted shape*
`\textsc{`*text*`}`	`{\scshape` *text*`}`	Small Caps shape
`\emph{`*text*`}`	`{\em` *text*`}`	*Emphasized*
`\textnormal{`*text*`}`	`{\normalfont` *text*`}`	Document font
`\underline{`*text*`}`		Underline

The command handles spacing better than the declaration.

Font size

`\tiny` tiny
`\scriptsize` scriptsize
`\footnotesize` footnotesize
`\small` small
`\normalsize` normalsize
`\large` large
`\Large` Large
`\LARGE` LARGE
`\huge` huge
`\Huge` Huge

Use `{\small ...}`, otherwise it affects the entire document.

Verbatim text

`\begin{verbatim}` Verbatim environment.
`\begin{verbatim*}` Spaces are shown as ␣.
`\verb!text!` Verbatim between '!'(or any other chars).

Justification

Environment	*Declaration*
`\begin{center}`	`\centering`
`\begin{flushleft}`	`\raggedright`
`\begin{flushright}`	`\raggedleft`

Miscellaneous

`\linespread{`*x*`}` changes the line spacing by the multiplier *x*.

4 Text-mode symbols

Symbols

&	`\&`	_	`\_`	...	`\ldots`	•	`\textbullet`
$	`\$`	^	`\^{}`	|	`\textbar`	\	`\textbackslash`
%	`\%`	~	`\~{}`	#	`\#`	§	`\S`

Accents

ò	`\‘o`	ó	`\’o`	ô	`\^o`	õ	`\~o`	ō	`\=o`
ȯ	`\.o`	ö	`\"o`	o͡	`\c o`	ŏ	`\v o`	ő	`\H o`
ç	`\c c`	o̱	`\d o`	o͟	`\b o`	o͡o	`\t oo`	œ	`\oe`
Œ	`\OE`	æ	`\ae`	Æ	`\AE`	å	`\aa`	Å	`\AA`
ø	`\o`	Ø	`\O`	ł	`\l`	Ł	`\L`	ı	`\i`
ȷ	`\j`	¡	`~‘`	¿	`?‘`				

Delimiters

‘	‘‘	{	\{	[	[	(	(	<	`\textless`
’	’’	}	\}	]	]	)	)	>	`\textgreater`
“	’’								

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

`\\` Begin new line without new paragraph.
`\\*` Prohibit pagebreak after linebreak.
`\kill` Don't print current line.
`\pagebreak` Start new page.
`\noindent` Do not indent current line.

Miscellaneous

`\today` April 14, 2010.
`$\sim$` Prints ∼ instead of `\~{}`, which makes ˜.
`~` Space, disallow linebreak (`W.J.~Clinton`).
`\@.` Indicate that the `.` ends a sentence when following an uppercase letter.
`\hspace{`*l*`}` Horizontal space of length *l* (Ex: *l* = `20pt`).
`\vspace{`*l*`}` Vertical space of length *l*.
`\rule{`*w*`}{`*h*`}` Line of width *w* and height *h*.

5 Math mode

To use math mode, surround text with `$` or use `\begin{equation}`.

Superscript^x	`^{x}`	Subscript$_x$	`_{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

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

6 Tabular environments

tabbing environment

`\=` Set tab stop. `\>` Go to tab stop.

Tab stops can be set on "invisible" lines with `\kill` at the end of the line. Normally `\\` is used to separate lines.

tabular environment

`\begin{array}[`*pos*`]{`*cols*`}`
`\begin{tabular}[`*pos*`]{`*cols*`}`
`\begin{tabular*}{`*width*`}[`*pos*`]{`*cols*`}`

tabular column specification

`clr`	Centered, Left-, Right-justified column.
`p{`*width*`}`	Same as `\parbox[t]{`*width*`}`.
`@{`*decl*`}`	Insert *decl* instead of inter-column space.
`|`	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.

7 Bibliography and citations

When using BibTeX, run `latex`, `bibtex`, and `latex` twice.

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; Ex. `\citeNP`.

BibTeX entry types

`@article`	`@book`	`@booklet`
`@conference`	`@inbook`	`@incollection`
`@misc`	`@phdthesis`	`@proceedings`
`@techreport`	`@unpublished`	

BibTeX fields

`address`	`author`	`booktitle`	`chapter`
`edition`	`editor`	`institution`	`journal`
`key`	`month`	`note`	`number`
`organization`	`pages`	`publisher`	`school`
`series`	`title`	`type`	`volume`
`year`			

Common BibTeX style files

`abbrv`	Standard	`abstract`	`alpha` with abstract
`alpha`	Standard	`apa`	APA
`plain`	Standard	`unsrt`	Unsorted

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

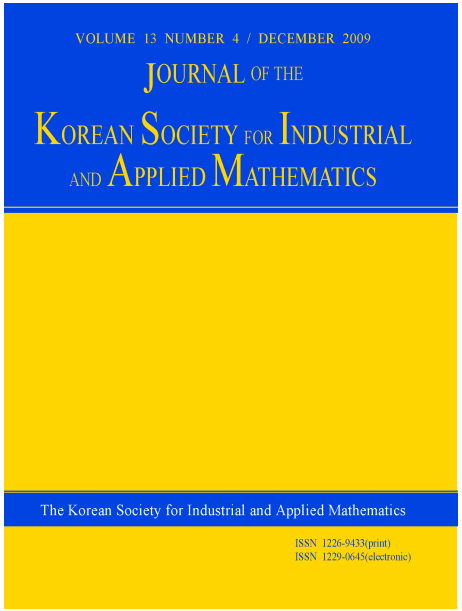
```
\bibliographystyle{plain}
\bibliography{bibfile}
```

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
}
```

JKSIAM: Call-For-Paper



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The JKSIAM was founded in 1997 and has been a journal in the Korean Citation Index (KCI) list since 2007. It is published four times a year (March, June, September, December) and the average submission-to-publication time span is about three months.

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