

L^AT_EX 2_ε 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.
`ansysize` Set margins: `\marginwidth{l}{r}{t}{b}`.
`multicol` Use *n* columns: `\begin{multicols}{n}`.
`latexsym` Use L^AT_EX 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}` `\subsubsection{title}`
`\chapter{title}` `\paragraph{title}`
`\section{title}` `\subparagraph{title}`
`\subsection{title}`

Section commands can be followed with an `*`, like `\section*{title}`, to suppress heading numbers.
`\setcounter{secnumdepth}{x}` suppresses 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`, `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
<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 handles spacing better than the declaration.

Font size

<code>\tiny</code>	tiny	<code>\Large</code>	Large
<code>\scriptsize</code>	scriptsize	<code>\LARGE</code>	LARGE
<code>\footnotesize</code>	footnotesize	<code>\huge</code>	huge
<code>\small</code>	small	<code>\Huge</code>	Huge
<code>\normalsize</code>	normalsize		
<code>\large</code>	large		

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

Miscellaneous

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

4 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>\S</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>ó</code>	<code>\.o</code>	<code>ö</code>	<code>\"o</code>	<code>ø</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>ø</code>	<code>\d o</code>	<code>ø</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>ı</code>	<code>\j</code>	<code>ı</code>	<code>\~{}</code>	<code>ı</code>	<code>\?</code>				

Delimiters

<code>'</code>	<code>\'</code>	<code>[</code>	<code>\[</code>	<code>(</code>	<code>\(</code>	<code><</code>	<code>\textless</code>
<code>'</code>	<code>\'</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

`\` 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}	<code>\^{\x}</code>	Subscript _{x}	<code>_{\x}</code>
$\frac{x}{y}$	<code>\frac{x}{y}</code>	$\sum_{k=1}^n$	<code>\sum_{k=1}^n</code>
$\sqrt[n]{x}$	<code>\sqrt[n]{x}</code>	$\prod_{k=1}^n$	<code>\prod_{k=1}^n</code>

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>

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 $\text{BIB}_{\text{T}}\text{E}_{\text{X}}$, 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`.

BIB_TE_X entry types

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

BIB_TE_X fields

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

Common BIB_TE_X style files

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

The $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ document should have the following two lines just before `\end{document}`, where `bibfile.bib` is the name of the $\text{BIB}_{\text{T}}\text{E}_{\text{X}}$ file.

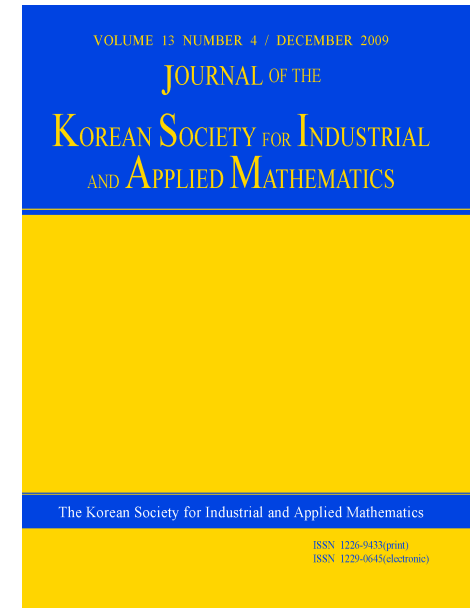
```
\bibliographystyle{plain}
\bibliography{bibfile}
```

BIB_TE_X example

The $\text{BIB}_{\text{T}}\text{E}_{\text{X}}$ database goes in a file called `file.bib`, which is processed with `bibtex` file.

```
@String{N = {Na\text{-}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



The Journal of the Korean Society for Industrial and Applied Mathematics (JKSIAM) is the official journal of the society. The JKSIAM publishes research articles on the mathematical analysis and modelling and its application to the physical, engineering, financial, and life sciences.

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.

Manuscripts should be submitted via the KSIAM home page <http://www.ksiam.org> and all articles are freely available from the website.

Written by Winston Chang (www.stdout.org/~winston/latex/).
 Modified by the editors of JKSIAM for better readability.