

LATEX

Learning

Support

Desk

2020. 7. 16

staff Dohui W00

Latex
Dohui Woo
October 11, 2019

1 Introduction

There is a theory which states that if ever anyone discovers exactly what the Universe is for and why it is here, it will instantly disappear and be replaced by something even more bizarre and inexplicable. There is another theory which states that this has already happened.



Figure 1: The Universe

2 Conclusion

"I always thought something was fundamentally wrong with the universe" [1]

References

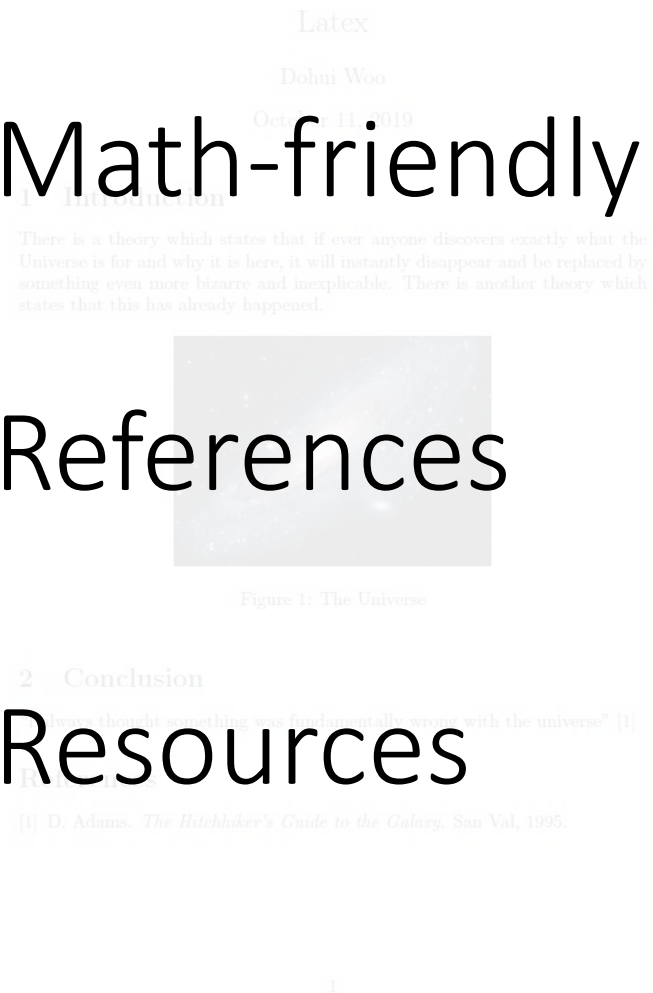
[1] D. Adams. *The Hitchhiker's Guide to the Galaxy*. San Val, 1995.

```
1 \documentclass{article}
2 \usepackage[utf8]{inputenc}
3
4 \title{Latex}\author{Dohui Woo}\date{\today}
5
6 \usepackage{natbib, graphicx}
7
8 \begin{document}
9
10 \maketitle
11
12 \section{Introduction}
13 There is a theory which states
14 that if ever anyone discovers exactly what the Universe is for
15 and why it is here,
16 it will instantly disappear and be replaced
17 by something even more bizarre and inexplicable.
18 There is another theory
19 which states that this has already happened.
20
21 \begin{figure}[h!]
22 \centering
23 \includegraphics[scale=1.7]{universe}
24 \caption{The Universe}
25 \label{fig:universe}
26 \end{figure}
27
28 \section{Conclusion}
29 ``I always thought something was fundamentally wrong
30 with the universe'' \cite{adams1995hitchhiker}
31
32 \bibliographystyle{plain}
33 \bibliography{references}
34 \end{document}
35
```

✓ Math-friendly

✓ References

✓ Resources



```
1 \documentclass{article}
2 \usepackage[utf8]{inputenc}
3
4 \title{Latex}\author{Dohui Woo}\date{\today}
5
6 \usepackage{natbib, graphicx}
7
8 \begin{document}
9
10 \maketitle
11
12 \section{Introduction}
13 There is a theory which states
14 that if ever anyone discovers exactly what the Universe is for
15 and why it is here, it will instantly disappear and be replaced
16 by something even more bizarre and inexplicable.
17 There is another theory
18 which states that this has already happened.
19
20
21 \begin{figure}[h!]
22 \centering
23 \includegraphics[scale=1.7]{universe}
24 \caption{The Universe}
25 \label{fig:universe}
26 \end{figure}
27
28 \section{Conclusion}
29 ``I always thought something was fundamentally wrong
30 with the universe'' \citep{adams1995hitchhiker}
31
32 \bibliographystyle{plain}
33 \bibliography{references}
34 \end{document}
```

Suit for Academia

LaTeX, Evolved

① Register



③ New file → create a *.tex file

Get started now

email@example.com

「オンラインレポート執筆講座: 京都大学附属図書館学習サポートデスク」

I'd like emails about product offers and company news and events.

Register

**** is for a **special use**

functions

`\tableofcontents`

symbols

`\alpha`

user-specified functions

`\newcommand`

Preamble

```
¥documentclass{article}
```

Contents

```
¥begin{document}  
¥end{document}
```

〔 What you have to write 〕

〔 What you want to write 〕

Preamble

Title, margins, author(s), date, and etc.

〔 What you have to write 〕

document Class

: determines the purpose of the document

`¥documentclass{article}`

- article

- report

- book

Package import

: brings in the functions you need

`¥usepackage{CJKutf8}`

<https://overleaf.com/learn/latex/Japanese>

- geometry

- graphicx

- natbib

etcetc.: set title, indent lengths, or line spaces, or declare your function


```
¥documentclass{article}
```

```
¥usepackage[hangul]{kotex}
```

```
¥usepackage[top = 2cm]{geometry}
```

```
¥usepackage{natbib, graphicx}
```

```
¥geometry{bottom = 0cm, nofoot}
```

```
¥title{An Introduction to LaTeX}
```

```
¥author{Dohui Woo}
```

```
¥date{}
```

✓ Set **Title**, author(s), date

¥title{A Striking Title} % you can't omit this item

¥author{Alice ¥and Bob}

¥date{¥today}

✓ maketitle

¥maketitle

✓ Package “geometry”

options : top, bottom, left, right, ...,
onecolumn, twocolumn,...

```
¥usepackage[top=10cm]{geometry}
```

Contents

Structure, math, tables, figures, references and etc.

〔 What you want to write 〕



←-----
¥section{Set}

¥subsection{The meaning of set and subset}

¥subsubsection{propositoin and condition}

¥paragraph{A proposition is,} a declarative sentence ...

¥subparagraph{example} Which of the following ...

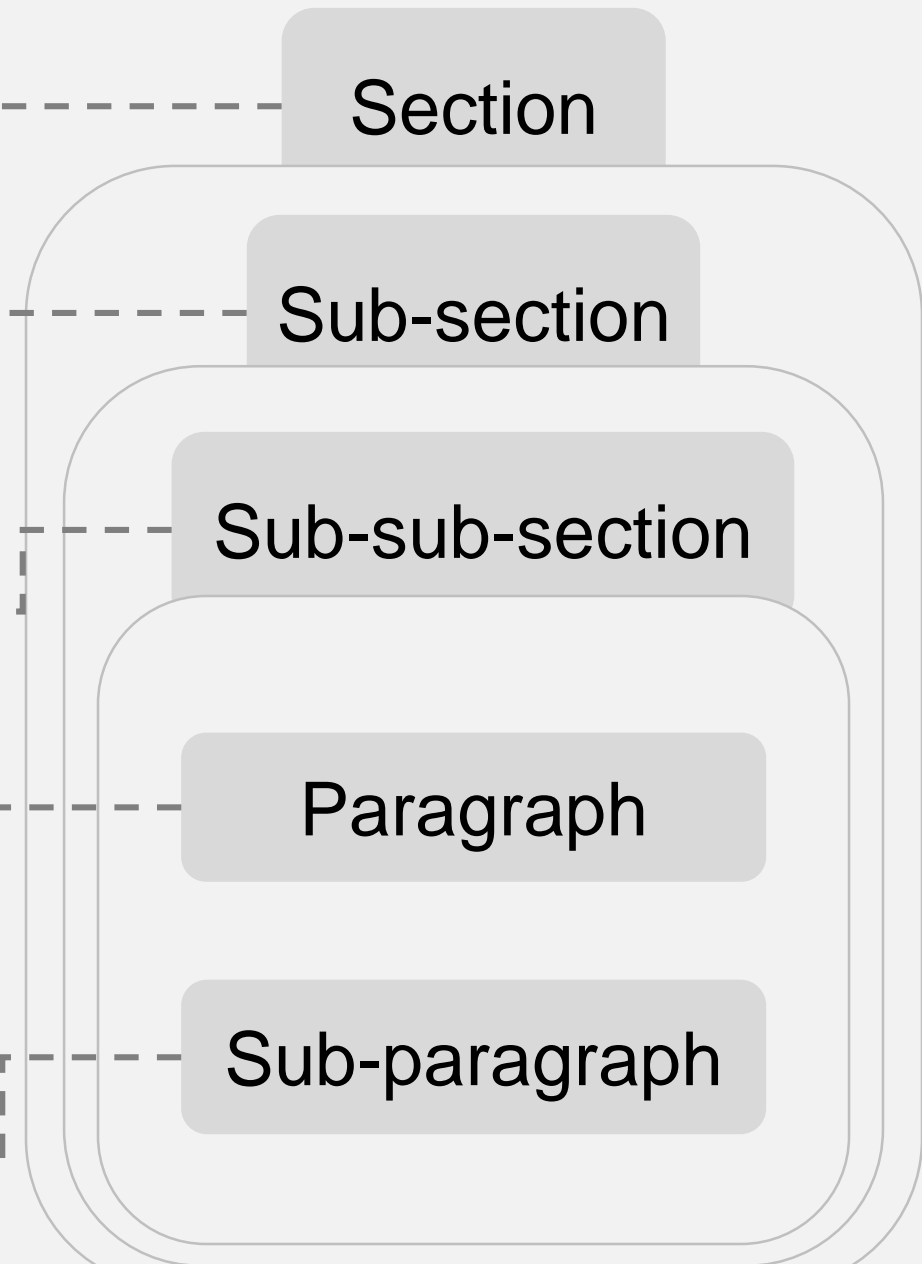
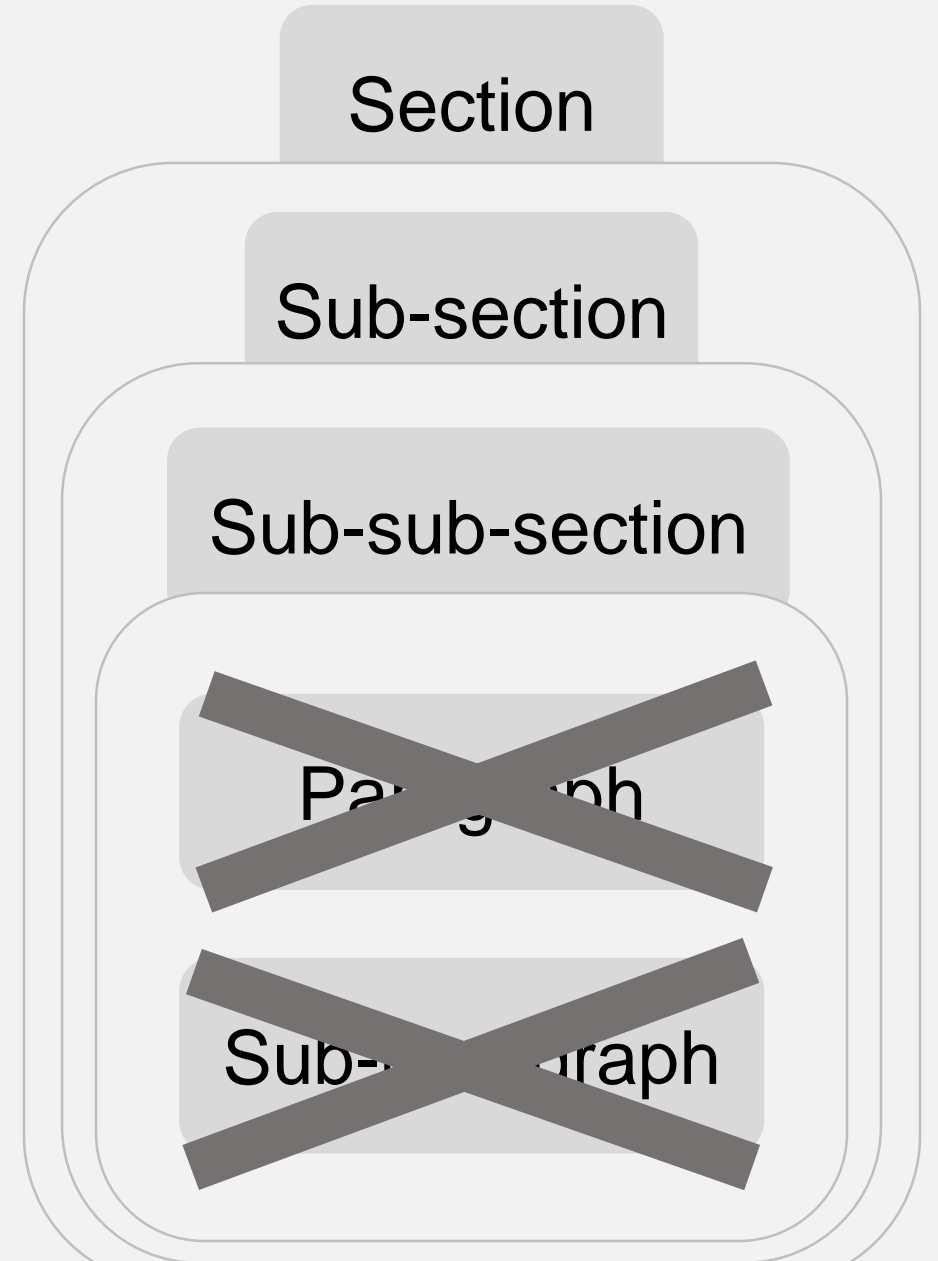


Table of contents

1 Set	3
1.1 Set and subset.	3
1.1.1 proposition and condition.	3

¥tableofcontents



The solution of $ax^2 + bx + c = 0$ ($a \neq 0$) is,

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \quad (1)$$

```
1 \documentclass{article}
2 \begin{document}
3 ax^2
4 \end{document}
```

Missing \$
inserted.

✓ Math mode

- **`$ math $` : words**

The kinetic energy **`K`** of an object with a mass **`m`** moving with a velocity **`v`** is

- **`\[math \]` : phrases**

`\[\frac{1}{2} mv^2 \]`

The solutions of $ax^2 + bx + c = 0$ ($a \neq 0$) is,

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



✓ tabular environment

```
¥begin{tabular}{|l|c|r|}  
  ¥hline  
  A1 & B1 & C1 ¥¥ ¥hline  
  A2 & B2 & C2 ¥¥ ¥hline  
¥end{tabular}
```

A1	B1	C1
A2	B2	C2

✓ tablesgenerator

✓ table environment

```
¥begin{table}  
  ¥caption{your caption}  
  ¥begin{tabular}{||c|r|}  
    ...  
  ¥end{tabular}  
¥end{table}
```

Table1. your caption

A1	B1	C1
A2	B2	C2

Table1. Prisoners' dilemma

	C	D
C	(1, 1)	(0, 10)
D	(10, 0)	(1, 1)



✓ Package `graphicx`

✓ `figure` environment

```
¥usepackage{graphicx}
```

```
¥begin{figure}
```

```
¥includegraphics{universe}
```

```
¥caption{pic of universe}
```

```
¥end{figure}
```

✓ Location : h(ere), t(op), b(ottom), p(age)

```
¥begin{figure}[option]
```

✓ Size : width, height, scale

```
¥includegraphics[option] {figure}
```



Tag a Label

```
¥begin{figure}  
  ...  
  ¥label{uni}  
  ...  
¥end{figure}
```



Fig. 1: Yay! Universe!

Figure. 1 was taken when I was travelling the universe.

Refer

Figure. [¥ref{uni}](#) is taken when I was travelling the universe.



Figure 1: The Universe

2 Conclusion

“I always thought something was fundamentally wrong with the universe” [1]

References

[1] D. Adams. *The Hitchhiker's Guide to the Galaxy*. San Val, 1995.

✓ quote

✓ references

Add Files

- New File
- Upload
- From Another Project
- From External URL
- From Mendeley
- From Zotero

File Name

name.bib

① *.bib file

Cancel Create

add

② ¥bibliography}

③ ¥bibliographystyle}

in main text

```

22 \caption{The Universe}
23 \label{fig:universe}
24 \end{figure}
25
26 \section{Conclusion}
27 "I always thought something was fundamentally wrong with the
universe" \cite{adams-hitchhiker}
28
29 \bibliographystyle{plain}
30 \bibliography{references}
31 \end{document}
32

```

2 Conclusion

"I always thought something was fundamentally wrong with the universe" [1]

References

[1] Adams D. *The Hitchhiker's Guide to the Galaxy* (1979)

```
@book{davis2017selfish,  
  title={The selfish gene},  
  author={Davis, Nicola},  
  year={2017},  
  publisher={Macat Library}  
}
```

```
@book{adams1995hitchhiker,  
title={The Hitchhiker's Guide to the Galaxy},  
author={Adams D.d},  
isbn={9781417642595},  
year={1995},  
publisher={San Val}}
```

```
@book{davis2017selfish,  
title={The selfish gene},  
author={Davis, Nicola},  
year={2017},  
publisher={Macat Library}}
```

Key

- Refer a document using the Key
- Changeable

¥bibliographystyle{plain}

Numbered

cite with parentheses ¥citep{Key} ▶ [1]

¥bibliographystyle{plainnat}

Author-year

¥citep{Key} ▶ [Alonso et al., 2008]

cite within text ¥citet{Key} ▶ Alonso et al. [2008]

¥bibliography{name}

Learning support desk

「オンラインレポート執筆講座: 京都大学附属図書館学習サ
ポートデスク」

with Zoom

α	¥alpha	
a^x	¥a^x	
\sqrt{a}	¥sqrt{a}	<u>square root</u>
$\frac{1}{2}$	¥frac{1}{2}	<u>fraction</u>
\neq	¥neq	<u>not equal</u> to
\geq	¥ge	greater than or <u>equal</u> to

- **¥begin{equation}...¥end{equation}**

✓ LaTeX

✓ Add “`latexmkrc`”

```
$latex = 'platex';  
$bibtex = 'pbibtex';  
$dvi2pdf = 'dvi2pdfmx %O -o %D %S';  
$makeindex = 'mendex %O -o %D %S';
```

www.overleaf.com/learn/latex/Japanese ← copy and paste