

運用LaTeX寫作

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大綱

- 引言
- 軟體工具
- LaTeX語法
- 新增package





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LaTeX – A document preparation system [下載](#)

LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation. LaTeX is the de facto standard for the communication and publication of scientific documents. LaTeX is available as [free software](#).

You don't have to pay for using LaTeX, i.e., there are no licence fees, etc. You are, of course, invited to support the maintenance and development efforts through a [donation to the TeX Users Group](#) (choose LaTeX Project contribution) if you are satisfied with LaTeX.

The volunteer efforts that provide you with LaTeX need financial support, so thanks for any contribution you are willing to make.

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1 September, 2019

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23 April, 2019

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16 April, 2019

[Uploading to CTAN with l3build](#)

10 December, 2018

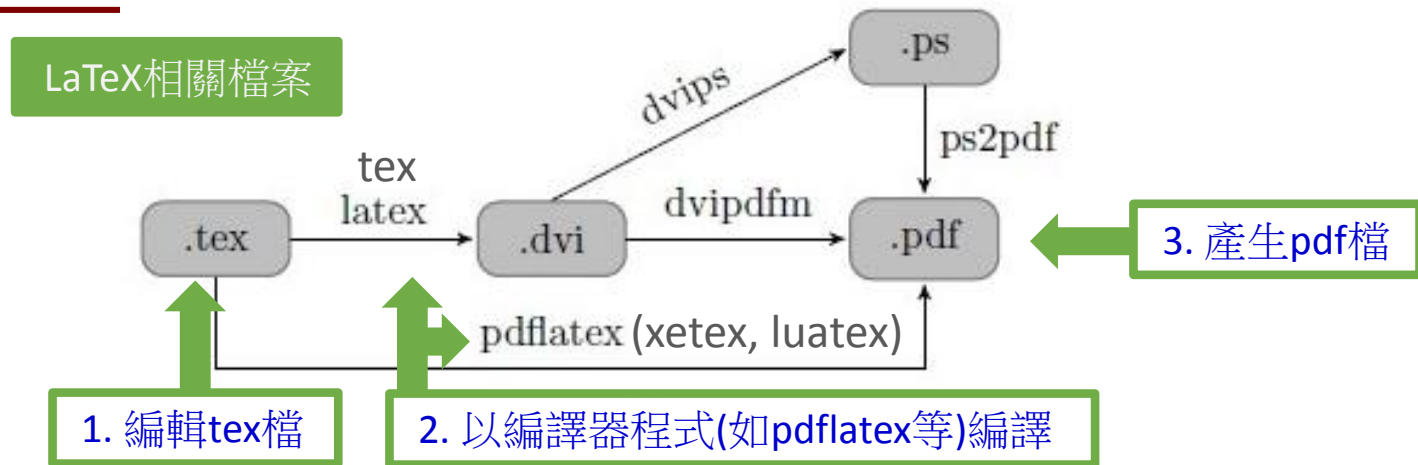
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28 October, 2018

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LaTeX Features



LaTeX Features

LaTeX特點

- Typesetting journal articles, technical reports, books, and slide presentations.
- Control over large documents containing sectioning, cross-references, tables and figures.
- Typesetting of complex mathematical formulas.
- Advanced typesetting of mathematics with AMS-LaTeX.
- Automatic generation of bibliographies and indexes.
- Multi-lingual typesetting.
- Inclusion of artwork, and process or spot colour.
- Using PostScript or Metafont fonts.

引自LaTeX網頁



軟體工具

TeX Distributions

TeX Distributions

各類作業系統LaTeX套裝軟體

If you're new to TeX and LaTeX or just want an easy installation, get a full TeX distribution. The TeX Users Group (TUG) has a [list of notable distributions](#) that are entirely, or least primarily, free software.



Linux

Check your Linux distributions software source for a TeX distribution including LaTeX. You can also install the current [TeX Live distribution](#) directly---in fact this may be advisable as many Linux distributions only contain older versions of TeX Live, see [Linux TeX Live package status](#) for details.



Mac OS

The [MacTeX](#) distribution contains everything you need, including a complete TeX system with LaTeX itself and editors to write documents.



Windows

Check out the [MiKTeX](#) or [proTeXt](#) or [TeX Live](#) distributions; they contain a complete TeX system with LaTeX itself and editors to write documents.



Online

LaTeX online services like [Papeeria](#), [Overleaf](#), [ShareLaTeX](#), [Datazar](#), and [LaTeX base](#) offer the ability to edit, view and download LaTeX files and resulting PDFs.

TEXMAKER



MiKTeX

<https://miktex.org/download>



...typeset documents...

下載

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Getting MiKTeX

MiKTeX is available for selected operating systems. Please check the [prerequisites](#) in order to find out whether your system is supported.

If your system is not (yet) supported: it is not too difficult to [build MiKTeX](#).

[Windows](#)

[Mac](#)

[Linux](#)

[Docker](#)

[All downloads](#)

Install on Windows

[Installer](#)

[Portable Edition](#)

[Command-line installer](#)

Installer

To install a basic TeX/LaTeX system on Windows, download and run this installer.

Please read the [tutorial](#), if you want step-by-step guidance.

Date: 10/4/2018

File name: basic-miktex-2.9.6850-x64.exe

Size: 190.07 MB

SHA-256: 292d6eced7e43c369af2a560e9628f4aa949b409ab82c39eaa019bcd1c7d4e13

[Download](#)

Windows 開始功能表

- MiKTeX console
- TeXworks

TeXworks

選擇編譯程式

標題列

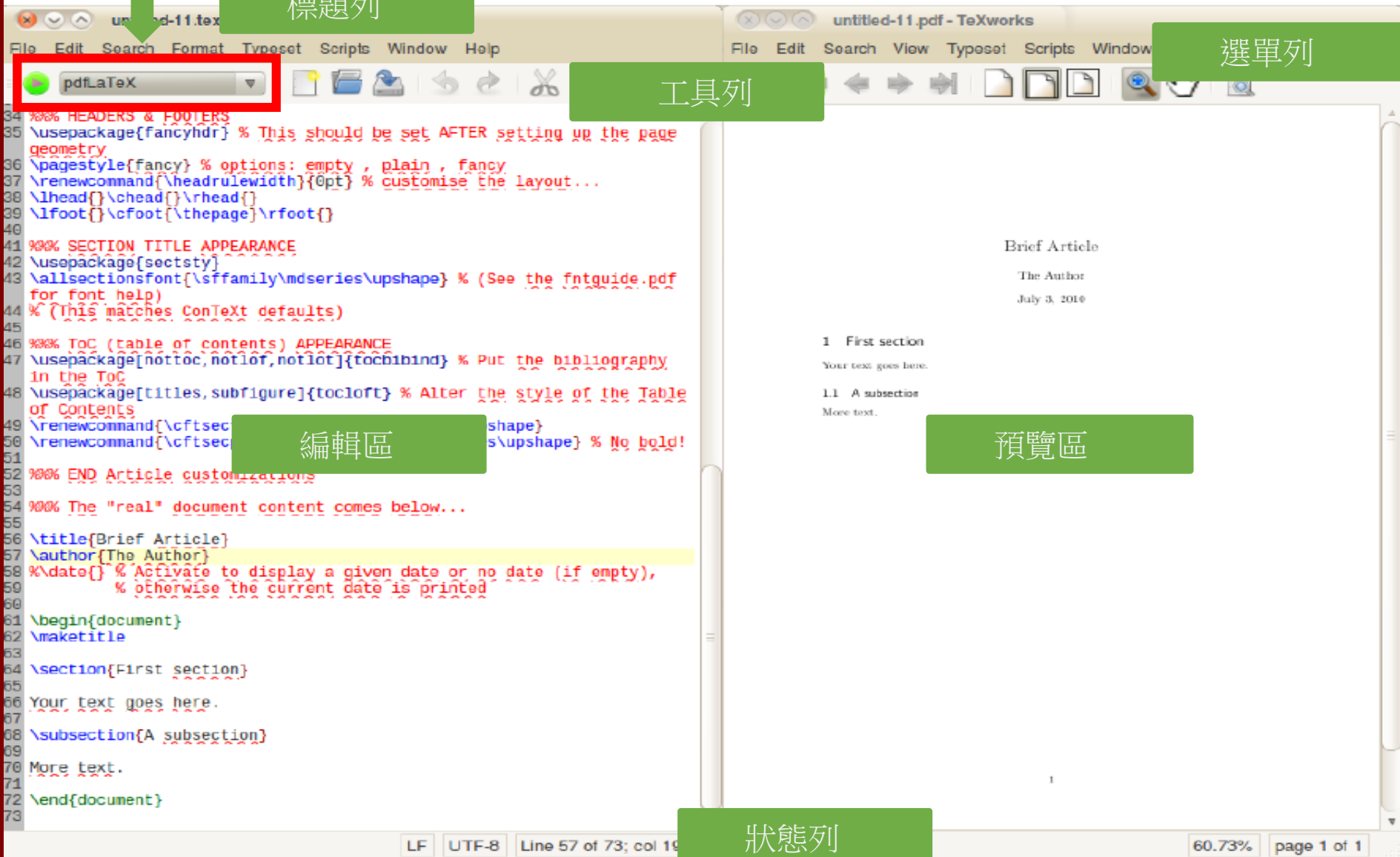
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TeXMaker

<http://www.xm1math.net/texmaker/>

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TEXMAKER

Free cross-platform LaTeX editor since 2003

(Windows, MacOSX, Linux)

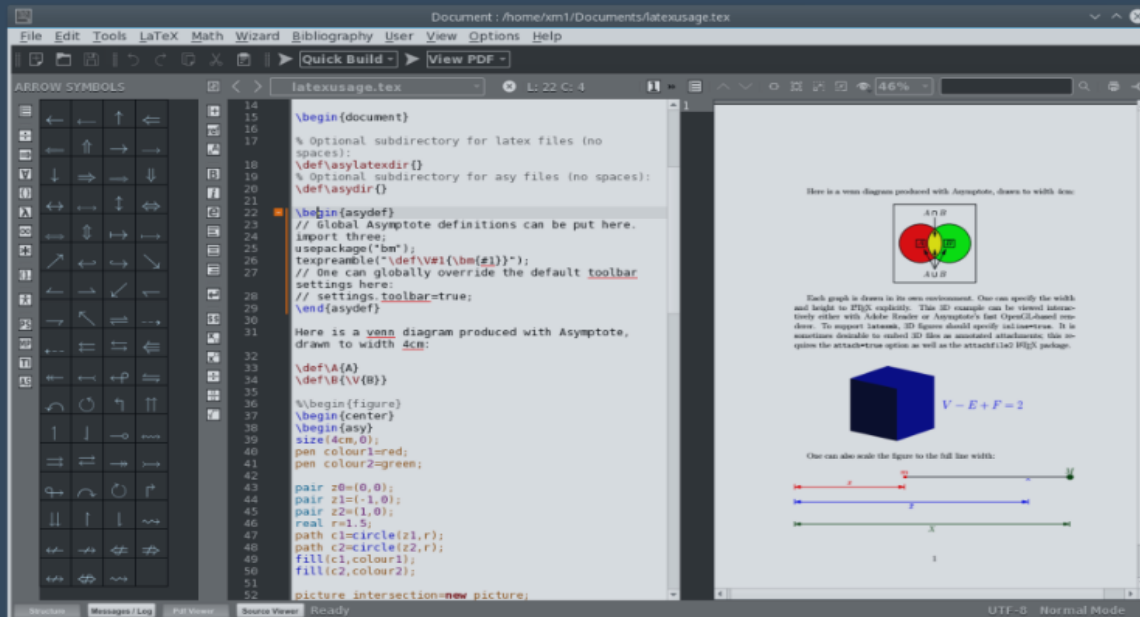
DOWNLOAD version 5.0.3



"Powerful, easy to use and elegant"

Powerful Editor

with unicode
support, spell
checking, auto-
completion, code
folding



Integrated Pdf viewer
with syntex support
and continuous view
mode

TeXMaker

The screenshot displays the TeXMaker application window. The top menu bar includes File, Edit, Tools, LaTeX, Math, Wizard, Bibliography, View, Options, and Help. Below the menu is a toolbar with icons for file operations and editing. A red box highlights the 'Quick Build' button in the toolbar, with a green arrow pointing to it and the text '系統設定' (System Settings) in a green box. Another green arrow points to the 'New PDF' button with the text '開啟新檔' (Open New File) in a green box. The main editor area shows the source code of 'sample.tex' with line numbers 31 to 66. The code includes LaTeX commands for document structure, such as `\title{Sample}`, `\author{David P. Little}`, `\maketitle`, `\begin{abstract}`, `\section{Lists}`, `\begin{enumerate}`, `\item`, `\begin{subpoint}`, `\end{subpoint}`, `\end{enumerate}`, `\section{Equations}`, `\subsection{Binomial Theorem}`, `\begin{theorem}`, `\end{theorem}`, `\subsection{Taylor Series}`, and `\end{document}`. The code is color-coded: blue for LaTeX commands, black for text, and green for mathematical expressions. A red label '.tex' is placed next to the code area. The right pane shows the compiled PDF output, labeled '.pdf' in red. The PDF content includes the title 'Sample L^AT_EX File', author 'David P. Little', date 'July 11, 2017', an abstract, and sections '1 Lists' and '2 Equations'. The '1 Lists' section contains a list of points with various formatting (bold, italic, large font, subpoints). The '2 Equations' section contains the Binomial Theorem and Taylor Series. The bottom status bar shows 'Structure', 'Messages / Log', 'PDF Viewer', 'Source Viewer', and 'Ready'.

Document: D:\sample.tex

File Edit Tools LaTeX Math Wizard Bibliography View Options Help

Quick Build New PDF

開啟新檔 系統設定

sample.tex

.tex

.pdf

Sample L^AT_EX File

David P. Little

July 11, 2017

Abstract

This document represents the output from the file "sample.tex" once compiled using your favorite L^AT_EX compiler. This file should serve as a good example of the basic structure of a ".tex" file as well as many of the most basic commands needed for typesetting documents involving mathematical symbols and expressions. For more of a description on how each command works, please consult the links found on our course webpage.

1 Lists

1. First Point (Bold Face)
2. Second Point (Italic)
3. Third Point (Large Font)
 - (a) First Subpoint (Small Font)
 - (b) Second Subpoint (Tiny Font)
 - (c) Third Subpoint (Huge Font)

- Bullet Point (Sans Serif)
- CIRCLE POINT (SMALL CAPS)

2 Equations

2.1 Binomial Theorem

Theorem 1 (Binomial Theorem) For any nonnegative integer n , we have

$$(1+x)^n = \sum_{i=0}^n \binom{n}{i} x^i$$

2.2 Taylor Series

The Taylor series expansion for the function e^x is given by

$$e^x = 1 + x + \frac{x^2}{2} + \frac{x^3}{6} + \dots = \sum_{n=0}^{\infty} \frac{x^n}{n!} \quad (1)$$

File Type Line Message

sample.tex Warning line 62 Foreign command \atopwithdelims{amsmath} \frac or \genfrac should be used instead(ams...

LOG FILE:

This is pdfTeX, Version 3.14159265-2.6-1.40.17 (TeX Live 2016/W32TeX) (preloaded format=pdflatex 2017.7.14) 11 JUL 2017 15:36

entering extended mode

restricted \write is enabled.

%& line parsing enabled.

Structure Messages / Log PDF Viewer Source Viewer Ready

UTF-8 Normal Mode

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升級付費服務

<https://www.overleaf.com/>



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LaTeX, Evolved

The easy to use, online, collaborative LaTeX editor

The screenshot displays the Overleaf web interface for a LaTeX document titled "The Universe". The interface is split into three main sections: a file explorer on the left, a source code editor in the center, and a document preview on the right. The file explorer shows a project structure with folders "figures" and "sections", and files "universe.jpg", "main.tex", and "references.bib". The source code editor shows LaTeX code for a document class, packages, title, author, date, and content sections. The preview shows the rendered document with the title "The Universe", date "September 2018", and an introduction section. A "Recompile" button is visible above the preview. Below the preview, there is a "Get started now" section with a registration form.

Menu

The Universe

Review Share Submit History Chat

Source Rich Text

Recompile

1 \documentclass{article}

2 \usepackage{utf8}{inputenc}

3

4 \title{The Universe}

5 \author{}

6 \date{September 2018}

7

8 \usepackage{natbib}

9 \usepackage{graphicx}

10

11 \begin{document}

12

13 \maketitle

14

15 \section{Introduction}

16 There is a theory which states that if ever anyone discovers exactly what the

17 Universe is for and why it is here, it will instantly disappear and be replaced

18 by something even more bizarre and inexplicable.

19 There is another theory which states that this has already happened.

20

21 \begin{figure}[ht]

22 \centering

23 \includegraphics[scale=1.7]{figures/universe.jpg}

24 \caption{The Universe}

25 \label{fig:universe}

26 \end{figure}

27

28 \section{Conclusion}

29 "I always thought that if I could only find the answer to the question of

30 \textit{why} the Universe is here, it would be the greatest discovery of all time.

31 \textit{I} would like to know the answer to this question for the rest of my life.

32 \end{document}

The Universe

September 2018

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

Get started now

email@example.com *****

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

or

Register using Google Register using ORCID

Overleaf

選單

開啟專案

開新檔案

開新目錄

上傳檔案

編譯

Recompile

```
1 \documentclass{article}
2 \usepackage[utf8]{inputenc}
3
4 \title{Project from an example}
5 \author{Overleaf}
6 \date{September 2018}
7
8 \usepackage{natbib}
9 \usepackage{graphicx}
10
11 \begin{document}
12
13 \maketitle
14
15 \section{Introduction}
16 There is a theory which states that if ever anyone discovers
17 exactly what the Universe is for and why it is here, it will
18 instantly disappear and be replaced by something even more bizarre
19 and inexplicable.
20 There is another theory which states that this has already
21 happened.
22
23 \begin{figure}[h!]
24 \centering
25 \includegraphics[scale=1.7]{universe}
26 \caption{The Universe}
27 \label{fig:universe}
28 \end{figure}
29
30 \section{Conclusion}
31 ``I always thought something was fundamentally wrong with the
32 universe'' \cite{adams1995hitchhiker}
33
34 \bibliographystyle{plain}
35 \bibliography{references}
36 \end{document}
```

.tex

.pdf

Project from an example

Overleaf

September 2018

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]

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RevTeX 4.2 Template and Sample

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Author
License

The American Physical Society
Other (as stated in the work)

開啟專案模版

The American Physical Society (APS) and
American Physical Society (APS) and
of Physics (AIP) journals, including
Letters, Physical Review A-E, Physical
Review X, Reviews of Modern Physics, Applied Physics
Letters, using the RevTeX 4.2 document class.

Tags

[Physics](#)[Academic Journal](#)[REVTeX](#)[American Physical Society \(APS\)](#)[Find More Templates](#)

Manuscript Title:
with Forced Linebreak^{*}

Ann Author[†] and Second Author[‡]
Authors' institution and/or address
This line break forced with \\
(MUSO Collaboration)

Charlie Author[§]
Second institution and/or address
This line break forced and
Third institution, the second for Charlie Author

Delta Author[¶]
Authors' institution and/or address
This line break forced with \\
(CLEO Collaboration)
(Dated: June 18, 2019)

An article usually includes an abstract, a concise summary of the work covered at length in the main body of the article.

Usage: Secondary publications and information retrieval purposes.

Structure: You may use the descriptions environment to structure your abstract; use the optional argument of the \Atten command to give the category of each item.

1. FIRST-LEVEL HEADING:
THE LINE BREAK WAS FORCED via \\

This sample document demonstrates proper use of REVTeX 4.2 (and L^AT_EX 2_ε) in manuscripts prepared for submission to APS journals. Further information can be found in the REVTeX 4.2 documentation included in the distribution or available at <http://journals.aps.org/revtex/>.

When commands are referred to in this example file, they are always shown with their required arguments, using normal T_EX format. In this format, #1, #2, etc. stand for required author-supplied arguments to commands. For example, in \section{#1} the #1 stands for the title text of the author's section heading, and in \title{#1} the #1 stands for the title text of the paper.

Line breaks in section headings at all levels can be introduced using \\, A blank input line tells T_EX that the paragraph has ended. Note that top-level section headings are automatically uppercased. If a specific letter or word should appear in lowercase instead, you must escape it using \lowercase{#1} as in the word "via" above.

^{*} A footnote to the article title

[†] Also at Physics Department, XYZ University.

[‡] Second.Author@institution.edu

[§] <http://www.Second.institution.edu/> Charlie.Author

A. Second-level heading: Formatting

This file may be formatted in either the preprint or reprint style. Reprint format mimics final journal output. Either format may be used for submission purposes. Letter sized paper should be used when submitting to APS journals.

1. Wide text (A level-3 head)

The \widetext environment will make the text the width of the full page, as on page 4. (Note the use of the \raggedright command to refer to the page number.)
a. Note (Fourth-level head is run on). The width-changing commands only take effect in two-column formatting. There is no effect if text is in a single column.

B. Citations and References

A citation in text uses the command \cite{#1} or \unimiscite{#1} and refers to an entry in the bibliography. An entry in the bibliography is a reference to another document.

1. Citations

Because REVTeX uses the natbib package of Patrick Daly, the entire repertoire of commands in that package

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LaTeX Basics

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Drawing Diagrams Directly in

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Natbib bibliography styles

Natbib citation styles

Bibliography management with bibtex

Bibtex bibliography styles

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Page size and margins

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Using colours in LaTeX



LaTeX語法

學位、期刊論文格式

學位論文

- 封面（標題、作者）
- 致謝
- 摘要
- 目錄（含圖、表）
- 本文（章節）
- 附錄
- 參考文獻

期刊論文

- 標題、作者
- 摘要
- 本文（章節）
- 附錄
- 參考文獻

相關規定請參考圖書館論文繳交及離校手續

<https://www.lib.ntu.edu.tw/node/103>



.tex 文件 - 基本架構

```
\documentclass[a4paper,12pt]{article}  
\usepackage[utf8]{inputenc}
```

設定文件類別

↑
book, report...

宣告區

```
\begin{document}
```

設定文件環境

```
First document. This is a simple example, with no  
extra parameters or packages included.
```

本文區

```
\end{document}
```

First document. This is a simple example, with no extra parameters or packages included.



範例

```
\documentclass[reprint,amsmath,amssymb,  
aps]{revtex4-2}
```

Physical Review 期刊
宣告範例

```
\documentclass[a4paper,12pt]{article}  
\pdfoutput=1  
\usepackage{jheppub}
```

JHEP 期刊
宣告範例

Manuscript Title:
with Forced Linebreak^a

Ann Author¹ and Second Author¹
Authors' institution and/or address
*This line break forced with *
(MUSO Collaboration)

Charlie Author³
Second institution and/or address
This line break forced and
Third institution, the second for Charlie Author

Delta Author
Authors' institution and/or address
*This line break forced with *
(CLEO Collaboration)
(Dated: June 18, 2019)

An article usually includes an abstract, a concise summary of the work covered at length in the main body of the article.

Usage: Secondary publications and information retrieval purposes.

Structure: You may use the `\description` environment to structure your abstract; use the optional argument of the `\item` command to give the category of each item.

I. FIRST-LEVEL HEADING:
THE LINE BREAK WAS FORCED via \\

This sample document demonstrates proper use of REVTeX 4.2 (and L^AT_EX 2_ε) in manuscripts prepared for submission to APS journals. Further information can be found in the REVTeX 4.2 documentation included in the distribution or available at <http://journals.aps.org/revtex/>.

When commands are referred to in this example file, they are always shown with their required arguments, using normal T_EX format. In this format, #1, #2, etc. stand for required author-supplied arguments to commands. For example, in `\section{#1}` the #1 stands

A. Second-level heading: Formatting

This file may be formatted in either the `preprint` or `reprint` style. `reprint` format mimics final journal output. Either format may be used for submission purposes. **letter** sized paper should be used when submitting to APS journals.

1. Wide text (A level-3 head)

The `widetext` environment will make the text the width of the full page, as on page 4. (Note the use the `\pageref{#1}` command to refer to the page number.)

A title with some math: $x = 1$

F.IRST,^{a,b,1} S. Econd,^c T. Hird^{a,2} and Fourth^{a,2}

^aOne University,
some-street, Country

^bAnother University,
different-address, Country

^cA School for Advanced Studies,
some-location, Country

E-mail: first@one.univ, second@asas.edu, third@one.univ,
fourth@one.univ

ABSTRACT: Abstract...

Titles

```
\title{ 標題名稱}  
\author{ 作者名稱}  
\affil{ 研究單位名稱}  
\date{ \today}  
\maketitle
```

```
\begin{abstract}  
.....  
\end{abstract}
```

範例

```
\documentclass[a4paper,12pt]{article}  
\usepackage[utf8]{inputenc}
```

```
\title{First Document}  
\author{Hubert Farnsworth}  
\affil{Department of Biology, University X}  
\date{\today}  
\begin{document}
```

設定標題、作者等

```
\maketitle
```



設定摘要

```
\begin{abstract}  
This is a simple paragraph at the beginning of the  
document. A brief introduction to the main subject.  
\end{abstract}
```

```
\end{document}
```

First Document
Hubert Farnsworth
Department of Biology, University X
October 9, 2019

Abstract
This is a simple paragraph at the beginning of the document. A brief
introduction to the main subject.

1

範例

```
\documentclass[a4paper,12pt]{article}
\usepackage[utf8]{inputenc}
\usepackage{authblk}
\title{First Document}
%\author{Hubert Farnsworth}
\author[1]{Alice Smith <smith@gmail.com>}
\author[2]{Hubert Farnsworth}
\affil[1,2]{Department of Mathematics, University X}
\affil[2]{Department of Biology, University X}
\date{\today}

\begin{document}

\maketitle

\begin{abstract}
This is a simple paragraph at the begining of the
document. A brief introduction to the main subject.
\end{abstract}

\end{document}
```

First Document

Alice Smith ^{*1} and Hubert Farnsworth²

^{1,2}Department of Mathematics, University X

²Department of Biology, University X

October 18, 2019

Abstract

This is a simple paragraph at the beginning of the document. A brief introduction to the main subject.

^{*}ahmad01.shah@gmail.com

範例

設定使用Times New Roman及標楷體字體

編譯程式改用XeLaTeX

```
\documentclass[a4paper,12pt,twoside]{book}
\usepackage{xeCJK}
\begin{document}
\begin{titlepage}
\begin{center}
\vspace{0.5cm}
\LARGE
Department Name\\
University Name\\
Master Thesis/Doctoral Dissertation\\
\vspace{1.5cm}
\textbf{Thesis Title}
\vspace{1.5cm}
\textbf{Author Name}
\vfill
\textbf{Advisor: Prof. Name}
\vspace{0.8cm}
Date
\end{center}
\end{titlepage}
\end{document}
```

中文字

置中

調整間距

跳行

粗體

```
\usepackage{xeCJK}
\usepackage{fontspec}
\setmainfont{Times New Roman}
\setCJKmainfont{kaiu.ttf}
```

Department Name
University Name
Master Thesis/Doctoral Dissertation

Thesis Title

Author Name

Advisor: Prof. Name

Date

Sections

```
\chapter{名稱}
```

```
\section{名稱}
```

範例

```
\documentclass[a4paper,12pt]{article}
\title{.....}
\author{.....}
\date{.....}
\begin{document}
\maketitle
\begin{abstract}
```

```
.....
\end{abstract}
```

設定章節

```
\section{Introduction}
```

```
This is the first section.
```

```
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales...
```

```
\section{Second Section}
```

```
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante...
```

```
\end{document}
```

First Document

Hubert Farnsworth

October 9, 2019

Abstract

This is a simple paragraph at the beginning of the document. A brief introduction to the main subject.

1 Introduction

This is the first section.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales...

2 Second Section

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante...



範例



```
\documentclass[a4paper,12pt]{book}
```

```
\title{.....}
```

```
\author{.....}
```

```
\date{.....}
```

frontmatter

```
\begin{document}
```

```
\chapter{Chapter 1}
```

```
.....
```

```
\chapter{Chapter 2}
```

```
.....
```

設定章節

```
\chapter*{Abstract}  
Abstract goes here
```

```
\chapter*{Dedication}  
To mum and dad
```

```
\chapter*{Declaration}  
I declare that..
```

```
\chapter*{Acknowledgements}  
I want to thank...
```

```
\end{document}
```

-1 \part{part}

0 \chapter{chapter}

1 \section{section}

2 \subsection{subsection}

3 \subsubsection{subsubsection}

4 \paragraph{paragraph}

5 \subparagraph{subparagraph}



Appendix

`\appendix`

`\section{名稱} or \chapter{名稱}`

範例

```
\documentclass[a4paper,12pt]{article}
```

```
\title{.....}
```

```
\author{.....}
```

```
\date{.....}
```

```
\usepackage{appendix}
```

```
\begin{document}
```

```
\section{Introduction}
```

```
.....
```

```
\section{Second Section }
```

```
.....
```

```
\appendixpage
```

```
\appendix
```

```
\section{Section A}
```

```
.....
```

```
\end{document}
```

設定章節附錄

```
\begin{subappendices}
```

```
\subsection{ How I became inspired}
```

```
\end{subappendices}
```

設定附錄

First Document

Hubert Farnsworth

October 17, 2019

Abstract

This is a simple paragraph at the beginning of the document. A brief introduction to the main subject.

1 Introduction

This is the first section.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales...

1.A How I became inspired

2 Second Section

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilissem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante...

Appendices

A Section A

Table of Contents

`\tableofcontents`

範例

```
\documentclass[a4paper,12pt]{article}
```

```
.....
```

```
\begin{document}
```

```
\maketitle
```

```
\tableofcontents
```

設定目錄

```
\section{Introduction}
```

```
.....
```

```
\end{document}
```

設定超連結

```
\usepackage{hyperref}
```

First Document

Hubert Farnsworth

October 17, 2019

Abstract

This is a simple paragraph at the beginning of the document. A brief introduction to the main subject.

Contents

1 Introduction	1
1.A How I became inspired	1
2 Second Section	1
A Section A	1

1 Introduction

This is the first section.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales...

1.A How I became inspired

2 Second Section

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante...

Appendices

A Section A



範例

```
\documentclass[a4paper,12pt]{book}
```

```
\begin{document}
```

```
\frontmatter
```

宣告前頁章節

```
\chapter*{Abstract}
```

```
\addcontentsline{toc}{chapter}{Abstract}
```

Abstract goes here

```
\chapter*{Acknowledgements}
```

```
\addcontentsline{toc}{chapter}{Acknowledgements}
```

I want to thank...

```
\tableofcontents
```

```
\mainmatter
```

宣告正文章節

```
\chapter{First Chapter}
```

```
\end{document}
```

Contents

Abstract	i
Acknowledgements	iii
1 First Chapter	1
2 Second Chapter	3
A Appendix A	5

Bibliography

```
\begin{thebibliography}{99}
```

文獻筆數，上限為99

```
\bibitem {名稱}
```

文獻書目資料

.....

```
\end{thebibliography}
```

```
\cite{名稱}
```

範例

```
\documentclass[a4paper,12pt]{article}
```

```
\begin{document}
```

設定文獻目錄

```
\begin{thebibliography}{99}
```

```
\bibitem{latexcompanion}
```

```
Michel Goossens, .....
```

```
\bibitem{einstein}
```

```
Albert Einstein. ....
```

```
\bibitem{knuthwebsite}
```

```
Knuth. ....
```

```
\end{thebibliography}
```

```
\end{document}
```

1 First section

This document is an example of the `thebibliography` environment using in bibliography management. Three items are cited: *The L^AT_EX Companion* book [1], the Einstein journal paper [2], and the Donald Knuth's website [3]. The L^AT_EX related items are [1, 3].

References

- [1] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.
- [2] Albert Einstein. *Zur Elektrodynamik bewegter Körper*. (German) [*On the electrodynamics of moving bodies*]. *Annalen der Physik*, 322(10):891–921, 1905.
- [3] Knuth: Computers and Typesetting,
<http://www-cs-faculty.stanford.edu/~uno/abcde.html>



範例

```
\documentclass[a4paper,12pt]{article}
```

```
\begin{document}
```

設定引用文獻

This document is an example of thebibliography environment using in bibliography management. Three items are cited: The LaTeX Companion book `\cite{latexcompanion}`, the Einstein paper `\cite{einstein}`, and the Donald Knuth's website `\cite{knuthwebsite}`. The LaTeX related items are `\cite{latexcompanion, knuthwebsite}`.

文獻目錄指令

```
\end{document}
```

1 First section

This document is an example of thebibliography environment using in bibliography management. Three items are cited: *The L^AT_EX Companion* book [1], the Einstein journal paper [2], and the Donald Knuth's website [3]. The L^AT_EX related items are [1, 3].

References

- [1] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.
- [2] Albert Einstein. *Zur Elektrodynamik bewegter Körper*. (German) [*On the electrodynamics of moving bodies*]. *Annalen der Physik*, 322(10):891–921, 1905.
- [3] Knuth: Computers and Typesetting, <http://www-cs-faculty.stanford.edu/~uno/abcde.html>



範例：.bib 檔案

filename.bib

bib檔案範例

```
@article{einstein,  
  author    = {Albert Einstein},  
  title     = {Zur Elektrodynamik bewegter K{"o"}rper. (German) [On the electrodynami  
  journaltitle = {Annalen der Physik},  
  year      = {1905},  
  volume    = {322},  
  number    = {10},  
  pages     = {891-921},  
  doi       = {http://dx.doi.org/10.1002/andp.19053221004}  
}  
  
@online{knuthwebsite, ← 設定文獻名稱  
  author    = {Donald Knuth},  
  title     = {Knuth: Computers and Typesetting},  
  year      = {1984},  
  url       = {http://www-cs-faculty.stanford.edu/~uno/abcde.html}  
}  
  
@book{latexcompanion,  
  author    = {Michel Goossens and Frank Mittelbach and Alexander Samarin},  
  title     = {The \LaTeX\ Companion},  
  year      = {1993},  
  publisher = {Addison-Wesley},  
  location  = {Reading, Massachusetts}  
}
```

bib檔案欄位

Most common fields used in BibTeX

address	annote	author
booktitle	chapter	crossref
edition	editor	institution
journal	key	month
note	number	organization
pages	publisher	school
series	title	type
volume	year	URL
ISBN	ISSN	LCCN
abstract	keywords	price
copyright	language	contents



範例：.bib 檔案

TeXMaker編譯注意事項

```
pdflatex filename.tex  
bibtex filename.tex  
pdflatex filename.tex
```

TEXMAKER

"Tools" menu :

- Quick build : F1
- Latex : F2
- View dvi : F3
- Dvi->PS : F4
- View PS : F5
- Pdflatex : F6
- View Pdf : F7
- PS->Pdf : F8
- Dvi->Pdf : F9
- View log : F10
- Bibtex : F11
- Make index : F12

```
\documentclass[a4paper,12pt]{article}
```

```
\begin{document}
```

```
.....
```

```
\bibliographystyle{plain}
```

```
\bibliography{sampler.bib}
```

```
\end{document}
```

設定引用bib
檔案製作文獻
目錄

bibliographystyle

plain, abbrev, acm, alpha,
apalike, ieetr, siam, unsrt

文獻目錄格式選項



Figures

```
\usepackage{graphicx}  
\graphicspath{ {./images/} }
```

設定檔案路徑

```
\begin{figure}[ht]  
  \centering          height, scale  
  \includegraphics [width=8cm] {檔案名稱 }  
  \caption{說明文字}  
  \label{名稱}  
\end{figure}
```

height : 設定高度
scale : 設定比例

範例

```
\documentclass[a4paper,12pt]{article}
```

```
.....
```

```
\usepackage{graphicx}
```

```
\begin{document}
```

```
.....
```

```
\begin{figure}[ht]
  \centering
  \includegraphics[width=4cm]{Image }
  \caption{An image of a flower}
  \label{fig:flower}
\end{figure}
```

設定插入圖片

```
\end{document}
```

First Document

Hubert Farnsworth

October 18, 2019

Abstract

This is a simple paragraph at the beginning of the document. A brief introduction to the main subject.

Contents

1 Introduction	1
1.A How I became inspired	2
2 Second Section	2
A Section A	2

1 Introduction

In this example we generate several keywords which are important and deserve to appear in the Index.

This document is an example of BibTeX using in bibliography management. Three items are cited: *The L^AT_EX Companion* book [1], the Einstein journal paper [2], and the Donald Knuth's website [3]. The L^AT_EX related items are [1, 3].



Figure 1: An image of a flower



範例

```
\usepackage{sidecap}
```

圖片文字置右

```
\begin{SCfigure}[0.5][h]
\caption{Using again the picture of the universe.
This caption will be on the right}
\includegraphics[width=0.6\textwidth]{universe}
\end{SCfigure}
```



Figure 2: Using again the picture of the universe. This caption will be on the right

```
\usepackage{wrapfig}
```

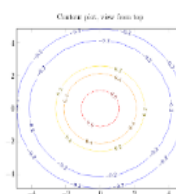
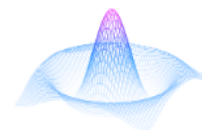
設定文繞圖效果

```
\begin{wrapfigure}{r}{0.25\textwidth}
\centering
\includegraphics[width=0.25\textwidth]{mesh}
\end{wrapfigure}
```

```
\begin{wrapfigure}{l}{0.25\textwidth}
\centering
\includegraphics[width=0.25\textwidth]{contour}
\end{wrapfigure}
```

There are several ways to plot a function of two variables, depending on the information you are interested in. For instance, if you want to see the mesh of a function so it easier to see the derivative you can use a plot like the one on the left.

On the other side, if you are only interested on certain values you can use the contour plot, you can use the contour plot, you can use the contour plot, you can use the contour plot, you can use the contour plot, like the one on the left.



On the other side, if you are only interested on certain values you can use the contour plot, you can use the contour plot, you can use the contour plot, you can use the contour plot, you can use the contour plot, like the one on the left.

範例

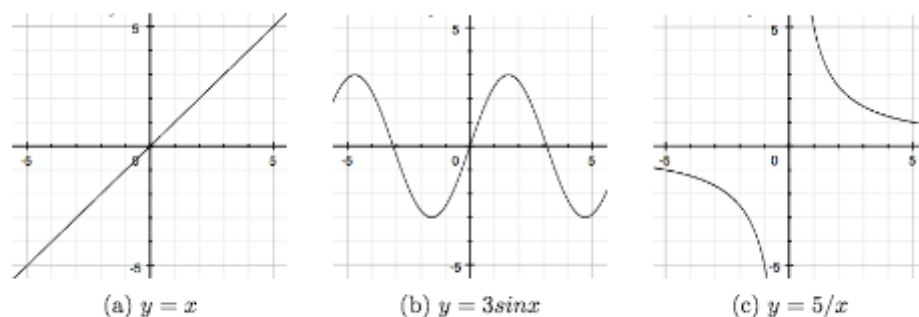


Figure 3.1: Three simple graphs

`\usepackage{subcaption}`

`\begin{figure}`

`\centering`

`\begin{subfigure}[b]{0.3\textwidth}`

`\centering`

`\includegraphics[width=\textwidth]{graph1}`

`\caption{$y=x$}`

`\label{fig:y equals x}`

`\end{subfigure}`

`\hfill`

`\begin{subfigure}[b]{0.3\textwidth}`

`\centering`

`\includegraphics[width=\textwidth]{graph2}`

`\caption{$y=3\sin x$}`

`\label{fig:three sin x}`

`\end{subfigure}`

`\hfill`

設定插入子圖片

設定插入子圖片

`\begin{subfigure}[b]{0.3\textwidth}`

`\centering`

`\includegraphics[width=\textwidth]{graph3}`

`\caption{$y=5/x$}`

`\label{fig:five over x}`

`\end{subfigure}`

設定插入子圖片

`\caption{Three simple graphs}`

`\label{fig:three graphs}`

`\end{figure}`



List of Figures

`\listoffigures`

範例

```
\documentclass{article}
\usepackage[utf8]{inputenc}

\begin{document}
\tableofcontents
\listoffigures
...
\end{document}
```

設定圖片目錄

About image types in L^AT_EX

latex

When compiling with *latex*, we can only use EPS images, which is a vector format.

pdflatex

If we are compiling using "pdflatex" to produce a PDF, then we can use a number of image formats -

JPG: Best choice if we want to insert photos

PNG: Best choice if we want to insert diagrams (if a vector version could not be generated)

PDF: Even though we are used to seeing PDF documents, a PDF can also store images

EPS: EPS images can be included using the *epstopdf* package (we just need to install the package, we don't need to use `\usepackage{}` to include it in our document.)

First Document

Hubert Farnsworth

October 18, 2019

Abstract

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Contents

1	Introduction	1
1.A	How I became inspired	1
2	Second Section	1
A	Section A	2

List of Figures

1	An image of a flower	2
---	----------------------	---

important and deserve

ography management.
], the Einstein journal
T_EX related items are

Etiam lobortis facil-
Præsent imperdiet mi

Tables

表格環境

```
\begin{table}[]
```

表格內容

```
\begin{tabular}{|c|c|}
```

```
\hline
```

列邊線

```
內容 & 內容 \\
```

```
\hline
```

```
內容 & 內容 \\
```

```
\hline
```

```
\end{tabular}
```

```
\caption{說明文字}
```

```
\label{標籤}
```

```
\end{table}
```

| : 欄邊線
c : 置中

& : 分隔不同欄位
\\ : 換行

範例

```
\begin{center}
\begin{tabular}{c c c }
cell1 & cell2 & cell3 \\
cell4 & cell5 & cell6 \\
cell7 & cell8 & cell9
\end{tabular}
\end{center}
```

設定無邊線表格

cell1	cell2	cell3
cell4	cell5	cell6
cell7	cell8	cell9

```
\begin{center}
\begin{tabular}{|c|c|c| }
\hline
cell1 & cell2 & cell3 \\
cell4 & cell5 & cell6 \\
cell7 & cell8 & cell9 \\
\hline
\end{tabular}
\end{center}
```

部分含邊線表格

cell1	cell2	cell3
cell4	cell5	cell6
cell7	cell8	cell9

```
\begin{tabular}{|l|c|r|}
\hline
item11 & item12 & item13 \\
\hline
item21 & item22 & item23 \\
\hline
\end{tabular}
```

全部有邊線表格

item 11	item 12	item 13
item 21	item 22	item 23



範例

Day	Max Temp	Min Temp
Mon	20	13
Tue	22	14
Wed	23	12
Thurs	25	13
Fri	18	7
Sat	15	13
Sun	20	13

(a) First Week

Day	Max Temp	Min Temp
Mon	17	11
Tue	16	10
Wed	14	8
Thurs	12	5
Fri	15	7
Sat	16	12
Sun	15	9

(b) Second Week

Table 4.2: Max and min temps recorded in the first two weeks of July

```
\begin{table}[h]
\begin{subtable}[h]{0.45\textwidth}
\centering
\begin{tabular}{l | l | l}
Day & Max Temp & Min Temp \\
\hline \hline
Mon & 20 & 13\\
Tue & 22 & 14\\
Wed & 23 & 12\\
Thurs & 25 & 13\\
Fri & 18 & 7\\
Sat & 15 & 13\\
Sun & 20 & 13
\end{tabular}
\caption{First Week}
\label{tab:week1}
\end{subtable}
\hfill
```

設定插入子表格

```
\begin{subtable}[h]{0.45\textwidth}
\centering
\begin{tabular}{l | l | l}
Day & Max Temp & Min Temp \\
\hline \hline
Mon & 17 & 11\\
Tue & 16 & 10\\
Wed & 14 & 8\\
Thurs & 12 & 5\\
Fri & 15 & 7\\
Sat & 16 & 12\\
Sun & 15 & 9
\end{tabular}
\caption{Second Week}
\label{tab:week2}
\end{subtable}
\caption{Max and min temps recorded i}
\label{tab:temps}
\end{table}
```

設定插入子表格



List of Tables

`\listoftables`

範例

```
\documentclass{article}
\usepackage[utf8]{inputenc}

\begin{document}

\listoftables

...
\end{document}
```

設定表格目錄

List of Tables

1	Table to test captions and labels	4
2	Table to test wrapping text around a table	4

Mathematical Expressions

- Math modes
- Symbols
- Equations
- Matrix

Math modes

inline mode

• $\backslash (x^2 + y^2 = z^2 \backslash)$

• $\$ x^2 + y^2 = z^2 \$$

display mode

• $\backslash [x^n + y^n = z^n \backslash]$

• $\$ \$ x^n + y^n = z^n \$ \$$

• $\backslash begin{equation}$
 $x^n + y^n = z^n$
 $\backslash end{equation}$

可編號引用

• $\backslash begin{eqnarray*}$
 $2x - 5y = 8$
 $3x + 9y = -12$
 $\backslash end{eqnarray*}$

可編號引用

First Document

Hubert Farnsworth

October 23, 2019

Abstract

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Contents

1	Introduction	1
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2	Second Section	2
A	Section A	2

1 Introduction

In this example we generate several keywords which are important and deserve to appear in the Index.

Here is the equation $x^2 + y^2 = z^2$ in the inline mode. The followings are in the display mode:

Ex1:

$$x^n + y^n = z^n$$

Ex2:

$$x^n + y^n = z^n$$

Ex3:

$$x^n + y^n = z^n \quad (1)$$

Ex4:

$$\begin{array}{rcl} 2x - 5y & = & 8 \\ 3x + 9y & = & -12 \end{array}$$



Symbols

數學符號語法

αA	<code>\alpha A</code>	νN	<code>\nu N</code>
βB	<code>\beta B</code>	$\xi \Xi$	<code>\xi \Xi</code>
$\gamma \Gamma$	<code>\gamma \Gamma</code>	$o O$	<code>o O</code>
$\delta \Delta$	<code>\delta \Delta</code>	$\pi \Pi$	<code>\pi \Pi</code>
$\epsilon \varepsilon E$	<code>\epsilon \varepsilon E</code>	$\rho \varrho P$	<code>\rho \varrho P</code>
ζZ	<code>\zeta Z</code>	$\sigma \Sigma$	<code>\sigma \Sigma</code>
ηH	<code>\eta H</code>	τT	<code>\tau T</code>
$\theta \vartheta \Theta$	<code>\theta \vartheta \Theta</code>	$\upsilon \Upsilon$	<code>\upsilon \Upsilon</code>
ιI	<code>\iota I</code>	$\phi \varphi \Phi$	<code>\phi \varphi \Phi</code>
κK	<code>\kappa K</code>	χX	<code>\chi X</code>
$\lambda \Lambda$	<code>\lambda \Lambda</code>	$\psi \Psi$	<code>\psi \Psi</code>
μM	<code>\mu M</code>	$\omega \Omega$	<code>\omega \Omega</code>

∞	<code>\infty</code>	$\forall$	<code>\forall</code>
$\Re$	<code>\Re</code>	$\Im$	<code>\Im</code>
∇	<code>\nabla</code>	$\exists$	<code>\exists</code>
∂	<code>\partial</code>	$\nexists$	<code>\nexists</code>
$\emptyset$	<code>\emptyset</code>	$\varnothing$	<code>\varnothing</code>
$\wp$	<code>\wp</code>	$\complement$	<code>\complement</code>
$\neg$	<code>\neg</code>	$\cdots$	<code>\cdots</code>
$\square$	<code>\square</code>	$\checkmark$	<code>\checkmark</code>
$\blacksquare$	<code>\blacksquare</code>	$\triangle$	<code>\triangle</code>

<code>\log</code>	<code>log</code>
<code>\sec</code>	<code>sec</code>
<code>\tan</code>	<code>tan</code>
<code>\arg</code>	<code>arg</code>
<code>\coth</code>	<code>coth</code>
<code>\dim</code>	<code>dim</code>
<code>\liminf</code>	<code>lim inf</code>
<code>\max</code>	<code>max</code>
<code>\sin</code>	<code>sin</code>
<code>\tanh</code>	<code>tanh</code>

<code>\gcd</code>	<code>gcd</code>
<code>\lg</code>	<code>lg</code>
<code>\ln</code>	<code>ln</code>
<code>\Pr</code>	<code>Pr</code>
<code>\sup</code>	<code>sup</code>
<code>\arctan</code>	<code>arctan</code>
<code>\cot</code>	<code>cot</code>
<code>\det</code>	<code>det</code>
<code>\hom</code>	<code>hom</code>
<code>\lim</code>	<code>lim</code>

餘弦函數語法

<code>\cos</code>	<code>cos</code>
<code>\csc</code>	<code>csc</code>
<code>\exp</code>	<code>exp</code>
<code>\ker</code>	<code>ker</code>
<code>\limsup</code>	<code>lim sup</code>
<code>\min</code>	<code>min</code>
<code>\sinh</code>	<code>sinh</code>
<code>\arcsin</code>	<code>arcsin</code>
<code>\cosh</code>	<code>cosh</code>
<code>\deg</code>	<code>deg</code>

$\leftarrow$	<code>\leftarrow</code>	$\Leftarrow$	<code>\Leftarrow</code>
$\rightarrow$	<code>\rightarrow</code>	$\Rightarrow$	<code>\Rightarrow</code>
$\leftrightarrow$	<code>\leftrightarrow</code>	$\rightleftharpoons$	<code>\rightleftharpoons</code>
$\uparrow$	<code>\uparrow</code>	$\downarrow$	<code>\downarrow</code>
$\Uparrow$	<code>\Uparrow</code>	$\Downarrow$	<code>\Downarrow</code>
$\Leftrightarrow$	<code>\Leftrightarrow</code>	$\Updownarrow$	<code>\Updownarrow</code>
$\mapsto$	<code>\mapsto</code>	$\longmapsto$	<code>\longmapsto</code>
$\nearrow$	<code>\nearrow</code>	$\searrow$	<code>\searrow</code>
$\swarrow$	<code>\swarrow</code>	$\nwarrow$	<code>\nwarrow</code>
$\leftharpoonup$	<code>\leftharpoonup</code>	$\rightharpoonup$	<code>\rightharpoonup</code>
$\leftharpoondown$	<code>\leftharpoondown</code>	$\rightharpoondown$	<code>\rightharpoondown</code>

$\times$	<code>\times</code>	$\times$	<code>\times</code>
$\div$	<code>\div</code>	$\cap$	<code>\cap</code>
$\cup$	<code>\cup</code>	$\neq$	<code>\neq</code>
$\leq$	<code>\leq</code>	$\geq$	<code>\geq</code>
$\in$	<code>\in</code>	$\perp$	<code>\perp</code>
$\notin$	<code>\notin</code>	$\subset$	<code>\subset</code>
$\simeq$	<code>\simeq</code>	$\approx$	<code>\approx</code>
$\wedge$	<code>\wedge</code>	$\vee$	<code>\vee</code>
$\oplus$	<code>\oplus</code>	$\otimes$	<code>\otimes</code>
$\square$	<code>\Box</code>	$\boxtimes$	<code>\boxtimes</code>
$\equiv$	<code>\equiv</code>	$\cong$	<code>\cong</code>



Equations

數學表示式語法

`\frac{1}{2}`

$$\frac{1}{2}$$

`\sum_{n=1}^{\infty} 2^{-n} = 1`

$$\sum_{n=1}^{\infty} 2^{-n} = 1$$

`\int_a^b x^2 dx`

$$\int_a^b x^2 dx$$

`\oint_V f(s) ds`

$$\oint_V f(s) ds$$

`\iint_V \mu(u,v) du dv`

$$\iint_V \mu(u,v) du dv$$

`\idotsint_V \mu(u_1, \dots, u_k) du_1 \dots du_k`

$$\int \cdots \int_V \mu(u_1, \dots, u_k) du_1 \dots du_k$$



Matrix

設定矩陣

```
\begin{equation}
\left[ \begin{array}{ccc}
1 & 5 & 8 \\
0 & 2 & 4 \\
3 & 3 & -8
\end{array} \right]
\end{equation}
```

$$\begin{Bmatrix} 1 & 5 & 8 \\ 0 & 2 & 4 \\ 3 & 3 & -8 \end{Bmatrix}$$

大括弧

矩陣元素

```
\begin{equation}
\left( \begin{array}{ccc}
1 & 5 & 8 \\
0 & 2 & 4 \\
3 & 3 & -8
\end{array} \right)
\end{equation}
```

$$\begin{pmatrix} 1 & 5 & 8 \\ 0 & 2 & 4 \\ 3 & 3 & -8 \end{pmatrix}$$

小括弧



Cross references

Figures, Tables, Equations

`\label{名稱}`

`\ref{名稱}`

範例

```
\begin{figure}[h]
  \centering
  \includegraphics[width=0.25\textwidth]{mesh}
  \caption{a nice plot}
  \label{fig:mesh1}
\end{figure}
```

As you can see in the figure `\ref{fig:mesh1}`, the function grows near 0. Also, in the page `\pageref{fig:mesh1}` is the same example.

設定引用圖表



Figure 3: a nice plot

As you can see in the figure 3, the function grows near 0. Also, in the page 7 is the same example.

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

The beautiful equation 1 is known as the Euler equation

```
\begin{equation} \label{eu_eqn}
e^{\pi i} + 1 = 0
\end{equation}
```

The beautiful equation `\ref{eu_eqn}` is known as the Euler equation

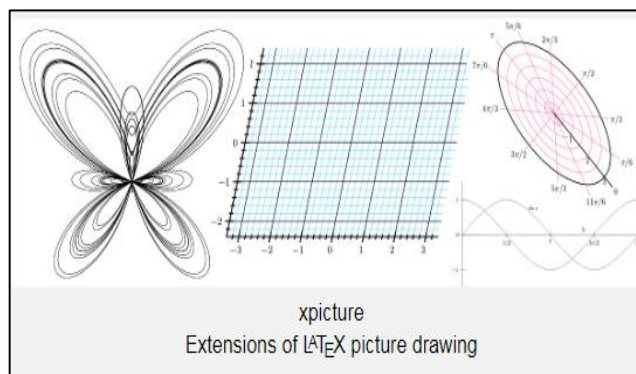
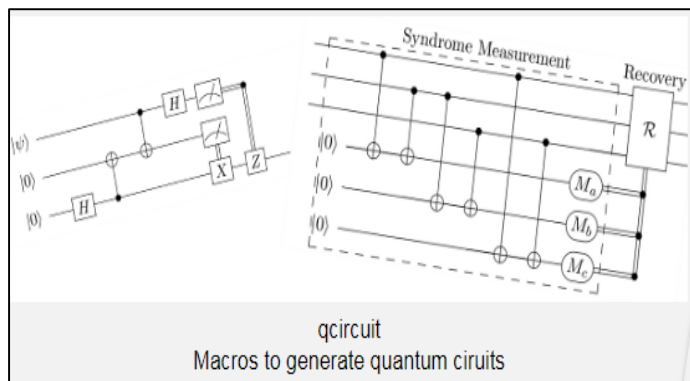
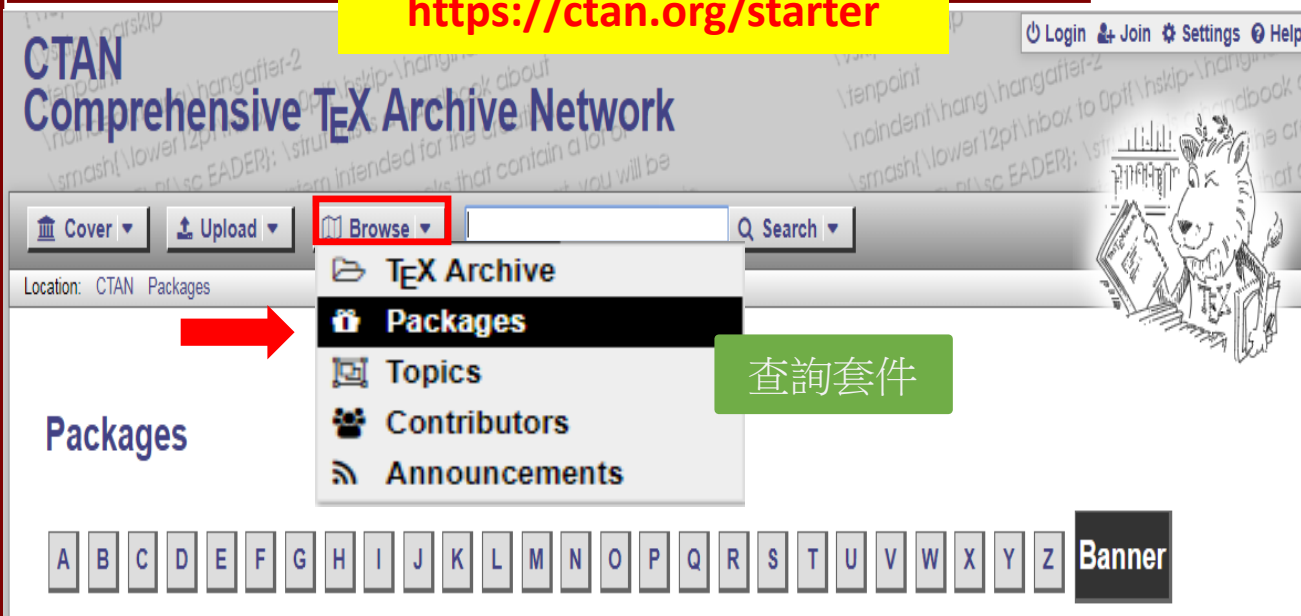
設定引用數學式



增加package

CTAN - Download Packages

<https://ctan.org/starter>



費曼圖

tikz-feynman – Feynman diagrams with TikZ

This is a $\text{\LaTeX}$ package allowing Feynman diagrams to be easily generated within $\text{\LaTeX}$ with minimal user instructions and without the need of external programs. It builds upon the [TikZ](#) package and leverages the graph placement algorithms from [TikZ](#) in order to automate the placement of many vertices. `tikz-feynman` allows fine-tuned placement of vertices so that even complex diagrams can still be generated with ease.

Sources	/graphics/pgf/contrib/tikz-feynman
Documentation	 README.md  Package documentation
Home page	http://www.jpellis.me/projects/tikz-feynman
Version	1.1.0 2016-02-05
Licenses	The $\text{\LaTeX}$ Project Public License 1.3
Copyright	2015–2016 Joshua Ellis
Maintainer	Joshua Ellis
Contained in	TeX Live as <code>tikz-feynman</code> MiKTeX as <code>tikz-feynman</code>
Topics	Use luatex Physics PGF/TikZ
See also	TikZ-FeynHand



Download [tikz-feynman](#) package in one zip archive (343.3k).

下載套件

Community Comments

No comments on this package are available yet. You can be the first to rate this package!

Package Links

[Home page](#)

Announcements



-  [2016-02-06 CTAN update: tikz-feynman](#)
-  [2016-01-21 New on CTAN: tikz-feynman](#)

[more](#) 

Suggestions

Maybe you are interested in the following packages as well.

- [feynman: Feynman diagrams in \$\text{\LaTeX}\$ 2.09](#)
- [tikz-feynhand: Feynman diagrams with TikZ](#)
- [pgf-spectra: Draw continuous or discrete spectra using PGF/TikZ](#)
- [callouts: Put simple annotations and notes inside a picture](#)

[more](#) 

Rating Summary

☆☆☆☆☆

0 [No votes]

This package has not been rated yet. You can be the first one to [rate it](#).

My Rating

Only [registered](#) and authenticated members may vote. Please [Login](#) to vote.

化學元素符號

Chemfig
Ochem
Streetex
xymtex

chemfig – Draw molecules with easy syntax

The package provides the command `\chemfig{<code>}`, which draws molecules using the [tikz](#) package. The `<code>` argument provides instructions for the drawing operation.

While the diagrams produced are essentially 2-dimensional, the package supports many of the conventional notations for illustrating the 3-dimensional layout of a molecule.

The package uses [TikZ](#) for its actual drawing operations.

Sources	/macros/generic/chemfig
Documentation	 README
	 Package documentation (English) 
	 Package documentation (French) 
Bug tracker	https://framagit.org/unbonpetit/chemfig/issues
Repository	https://framagit.org/unbonpetit/chemfig/t
Version	1.33
Licenses	The LaTeX Project Public License 1.3c
Copyright	2010–2018 Christian Tellechea
Maintainer	Christian Tellechea
Contained in	TeX Live as chemfig MiKTeX as chemfig
Topics	Diagrams Chemistry PGF TikZ



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Download this package in one zip archive

Community Comments

- ★★★★★ [Héctor Armando Esquinca Avilés](#) 2017-07-27
- ★★★★★ [Clemens Niederberger](#) 2017-03-03
- ★★★★★ [Denis Bitouzé](#) 2016-12-19
- ★★★★★ [matmay](#) 2016-12-18

Announcements



- [2018-11-02 CTAN update: chemfig](#)
- [2018-07 CTAN update: chemfig](#)
- [2018-09 CTAN Update: chemfig](#)

[more](#)

Questions

Are you interested in the following packages as well.

- [Graphs: Draws bond graphs in LaTeX, using PGF/TikZ](#)
- [Diagrams: Augmenting directed graphs](#)
- [Networks: Draw networks with TikZ](#)
- [Ladder: Draw ladder diagrams using TikZ](#)

[more](#)

Summary

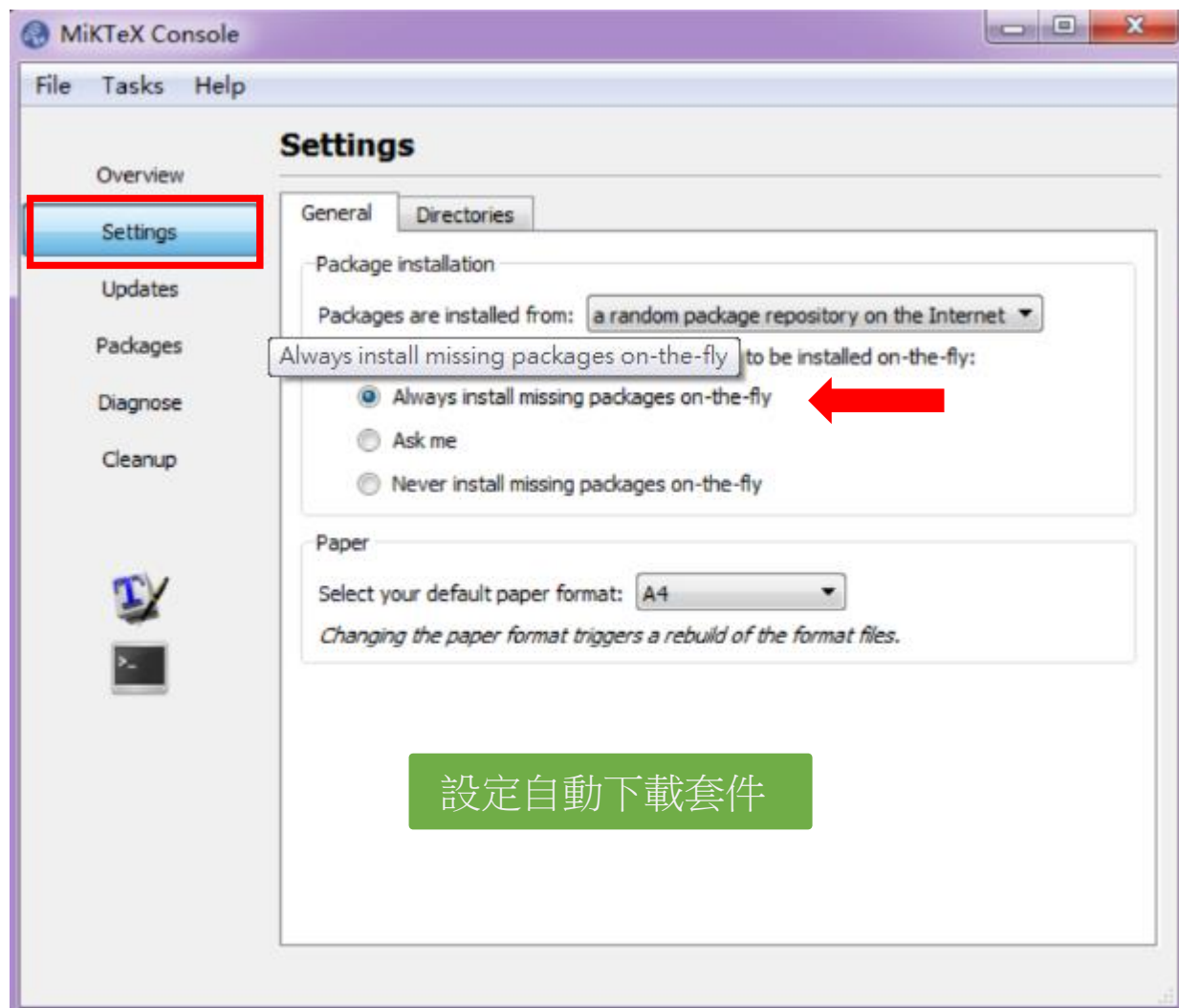
Bond types		
Bond type	code	output
single	<code>\chemfig{O - H}</code>	O — H
double	<code>\chemfig{O = H}</code>	O = H
triple	<code>\chemfig{O ~ H}</code>	O ≡ H
plain right cram	<code>\chemfig{O > H}</code>	O ► H
plain left cram	<code>\chemfig{O < H}</code>	O ◄ H
dashed right cram	<code>\chemfig{O >: H}</code>	O ►••• H
dashed left cram	<code>\chemfig{O <: H}</code>	O ◄••• H
hollow right cram	<code>\chemfig{O > H}</code>	O ▷ H
hollow left cram	<code>\chemfig{O < H}</code>	O ◁ H

MiKTeX – Packages management

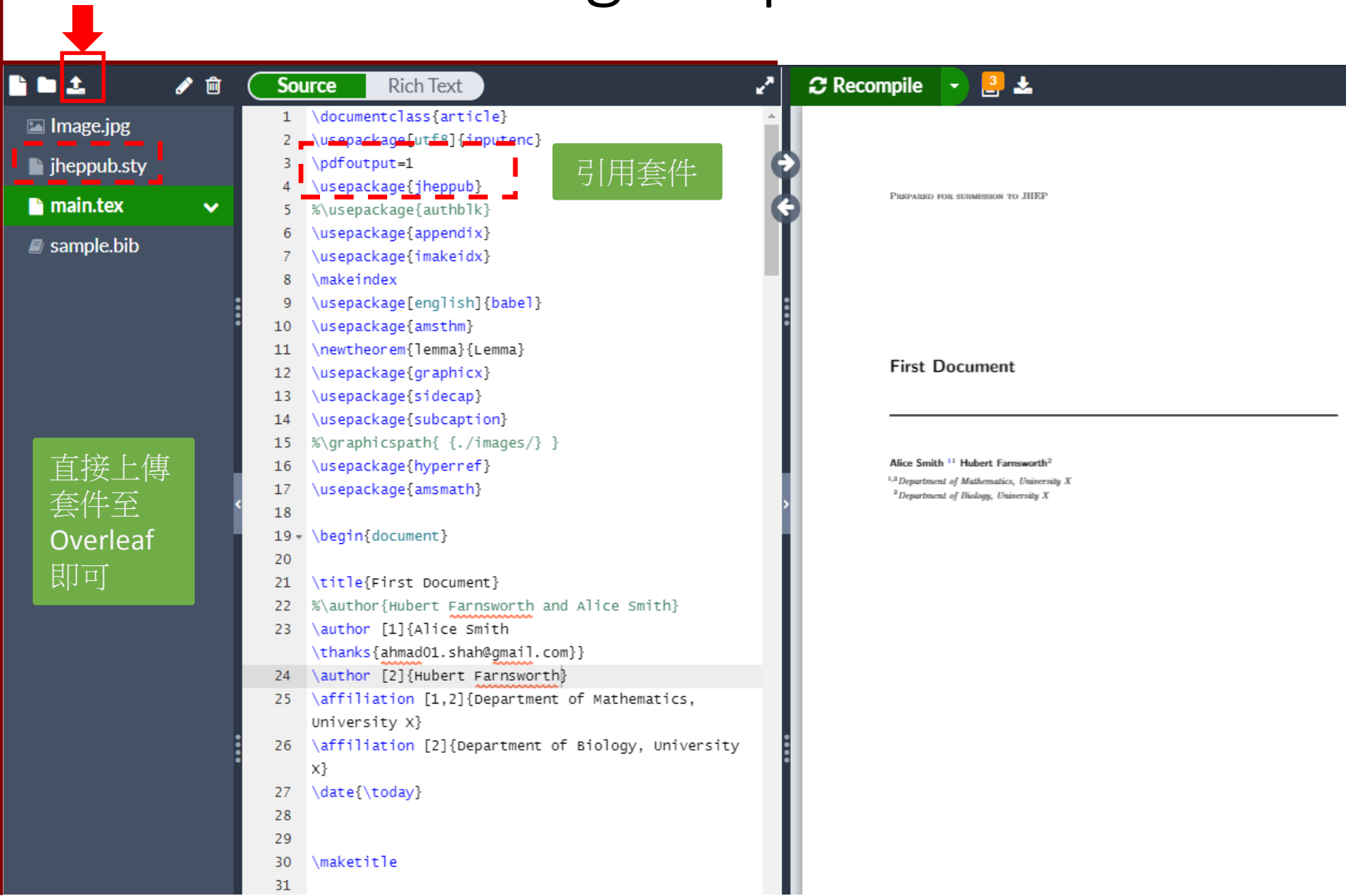
MiKTeX has the ability to automatically install missing packages. You can turn this feature on or off. And you can let MiKTeX ask you each time a package has to be installed:

1. Click **Settings** to navigate to the settings page.
2. Click the **General** tab.
3. Click one of the radio buttons:

- Ask me
- Always install missing packages on-the-fly
- Never install missing packages on-the-fly



Overleaf - Packages upload



The screenshot displays the Overleaf web interface. On the left, a file manager shows 'Image.jpg', 'jheppub.sty', 'main.tex' (selected), and 'sample.bib'. A red arrow points to the upload icon in the top toolbar. The central pane shows the LaTeX source code for 'main.tex', with lines 1 through 31. A green box labeled '引用套件' (Cite Packages) highlights the package loading section from line 2 to line 17. The right pane shows the compiled PDF, which includes the title 'First Document' and author information: 'Alice Smith^{1,1} Hubert Farnsworth²'. Footnotes for the authors are also visible.

直接上傳
套件至
Overleaf
即可

引用套件

```
1 \documentclass{article}
2 \usepackage[utf8]{inputenc}
3 \pdfoutput=1
4 \usepackage{jheppub}
5 %\usepackage{authblk}
6 \usepackage{appendix}
7 \usepackage{imakeidx}
8 \makeindex
9 \usepackage[english]{babel}
10 \usepackage{amsthm}
11 \newtheorem{lemma}{Lemma}
12 \usepackage{graphicx}
13 \usepackage{sidecap}
14 \usepackage{subcaption}
15 %\graphicspath{ {./images/} }
16 \usepackage{hyperref}
17 \usepackage{amsmath}
18
19 \begin{document}
20
21 \title{First Document}
22 %\author{Hubert Farnsworth and Alice Smith}
23 \author[1]{Alice Smith}
24 \thanks{ahmad01.shah@gmail.com}}
25 \author[2]{Hubert Farnsworth}
26 \affiliation[1,2]{Department of Mathematics,
27 University X}
28 \affiliation[2]{Department of Biology, University
29 X}
30 \date{\today}
31
32 \maketitle
```

PREPARED FOR SUBMISSION TO JHEP

First Document

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²Department of Biology, University X

參考資源



<https://www.overleaf.com/learn>

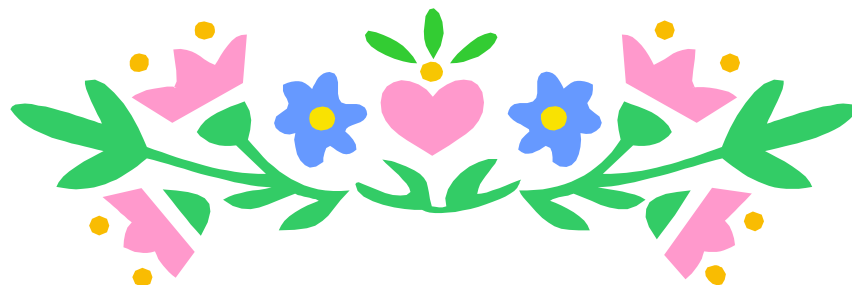


Frequently Asked Question List for TeX

<https://texfaq.org/>



<https://tug.org/>



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