Introduction to LaTeX

A very short briefing

Henry Yip

Year 3 Mathematical Physics, University of Edinburgh
Informal Website
Academic Website

Table of Contents

Sample frame title

I am **NOT** a LaTeX expert. These are some of my (potentially poor) ways to create a LaTeX document. There are much better ways but if you are a student wanting to create a LaTeXdocument fast (to submit your hand-in) this is a very good introduction.

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- Preample

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- Math Symbols

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- Footnote
- Bonus Session for Texmaker Users

Preample

- Below is an example of a **Preample**

```
\documentclass{article}
\usepackage{amsmath}
\usepackage{amssymb}
\usepackage{parskip}
\usepackage [utf8] {inputenc}
\usepackage{titlesec}
\setcounter{secnumdepth}{4}
\titleformat{\paragraph}
{\normalfont\normalsize\bfseries}{\theparagraph}{1em}{}
\titlespacing*{\paragraph}
{0pt}{3.25ex plus 1ex minus .2ex}{1.5ex plus .2ex}
\newcommand{\ie}{\textit{i}.\textit{e}. }
\title{Introductory Astrophysics (PHYS08050) Notes}
\author{Henry Yip
s2231321@ed.ac.uk
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Components

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- On the first line you can see **documentclass**{}. As we are writing articles, we always put **documentclass**{**articles**} in the brackets.

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- **usepackage**{**amsmath**} and **usepackage**{**amssymb**} are almost always required in Mathematical Writing.
- **usepackage**{**geometry**} is usually used to set margins. For example: **usepackage[margin=0.8in] geometry**}
- **Tikz** is preferred if you want to include graphs
- Below is a beautiful example! **(Created using Chatgpt)**


Henry

More on Packages

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- Then create a document named **Refereces.bib**. Put the details of the papers in. For example:
  @article{benisek2015vibrational,
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- These are directly provided in **Google Scholar**!

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- You can **always** find your answer in Stackexchange

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Important Notice

Try not to use powerpoint slides for your Math-related presentations

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- Always include **maketitle** after **begin**{**document**}

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- You can make your equations aligned also:

$$p = mv$$

$$E = \frac{1}{2}mv^2$$

More on Math Symbols

- You can use the \begin{aligned} and \end{aligned} to achieve this. Remember to include a & before every = sign so equations can be actually aligned. And add $$ in front and after begin{aligned} and end{aligned} respectively.

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- You can find more in Overleaf's website

Inserting pics

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- Second, include this line:
  - \includegraphics[scale= 1]{Preample.png}

Hyperlink

- First include the following packages in the **Preamble**

```
\usepackage{hyperref}
\hypersetup{
    colorlinks=true,
    linkcolor=blue,
    filecolor=magenta,
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Table

- You can make very nice tables with LaTeX

Time	**Activity**	**Remarks**
7:00	Train in **Glascow**/Paris	
12:00	Arriving in **King's Cross Station**	
12:30	Check in	
13:00-14:00	Lunch	
15:00-18:45	Hong Kong Disneyland	Walk Around
19:15-20:45	Dinner	

More on Tables

```
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  \begin{center}
    \begin{tabular}{c|c|c}
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- To adjust position please download \usepackage{float}

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- You can also click "View" in TexMaker, then "print" and then "Microsoft Print to Pdf". However, at least for me, the hyperlinks may be lost.

Approaching The End!

Questions

If you have any Questions feel free to ask me now!

Thank You!