

Revisiting LaTeX

Figures, Tables & Citations

Discussion # 2 Oct 12th, 2017

Madhura Som

Math 111 A/B

Introduction to LaTeX

LaTeX is a typesetting software in the TeX family developed by Leslie Lamport.

There are various distributions available for desktop and online.

<https://beebom.com/best-latex-editors>

The proposal template was written in one of the online distributions called ShareLaTeX.

https://www.sharelatex.com/learn/Main_Page

It allows collaboration on projects for a maximum of 2 users for the free version.

Getting Started:

https://www.sharelatex.com/learn/Creating_a_document_in_ShareLaTeX

Some other sources of learning:

<http://www.maths.tcd.ie/~dwilkins/LaTeXPrimer/>

<https://ctan.org/tex-archive/info/lshort>

Online textbooks in UCSD library <https://roger.ucsd.edu/>

Inserting Images

- Include package `graphicx`
- Use image environment
- Decide position of image
- Caption
- Size of image
- Label if necessary
- Image file types `jpg`, `bmp` etc.

```
\usepackage{graphicx}
```

```
\begin{figure}[placement specifier]  
... figure contents ...  
\end{figure}
```

```
\includegraphics[width=]{filename w/ or w/path}  
\caption{Caption}  
\label{fig:figure2}
```

h	Place the float <i>here</i> , i.e., <i>approximately</i> at the same point it occurs in the source text (however, not <i>exactly</i> at the spot)
t	Position at the <i>top</i> of the page.
b	Position at the <i>bottom</i> of the page.
p	Put on a special <i>page</i> for floats only

Inserting Tables

```
\begin{table}
\centering
\begin{tabular}{| l c r |}
\hline
1 & 2 & 3 \\
4 & 5 & 6 \\
7 & 8 & 9 \\
\hline
\end{tabular}
\caption{A simple table}
\end{table}
```

1	2	3
4	5	6
7	8	9

Table 1: A simple table

Inserting citations

- ❑ What is a citation?
- ❑ Creating a bibtex file

Example Bibliography style: Bibtex entry
%Linking the bibtex file (citations.bib) to the main
tex file

```
\bibliography{citations}  
\bibliographystyle{unsrt}
```

Some other citation styles supported by bibtex

```
%\bibliographystyle{ieeetr}  
%\bibliographystyle{apalike}
```

Length Table in LaTeX

Abbreviation	Definition
pt	A point, is the default length unit. About 0.3515mm
mm	a millimetre
cm	a centimetre
in	an inch
ex	the height of an x in the current font
em	the width of an m in the current font
<code>\columnsep</code>	distance between columns
<code>\columnwidth</code>	width of the column
<code>\linewidth</code>	width of the line in the current environment
<code>\paperwidth</code>	width of the page
<code>\paperheight</code>	height of the page
<code>\textwidth</code>	width of the text
<code>\textheight</code>	height of the text
<code>\unitleft</code>	units of length in the picture environment.