

Writing papers and thesis using L^AT_EX2e

Part II: Writing papers and thesis using L^AT_EX

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Figures

- \LaTeX can be easily extended using a *package* to typeset images.
- To use graphics in your \LaTeX document use `\usepackage{graphicx}`
- Always use relative scaling to specify the width of the figure, i.e.,
`[width = 0.75\textwidth]`
- Never ever use absolute values to scale your images!
- Set either the width or the height of the image. Or use `scale`

```
\begin{figure}  
\includegraphics[width=0.75\textwidth]  
                {figs/minion}  
\end{figure}
```



Figures

- For captioning a figure, you can use `\usepackage{caption}`
- tweak the location, label, separator: `[labelsep=space, tableposition=top]{caption}`
- I prefer to centre the figure. To do that use `\centering`
- You can use `~\cref{fig:minion}` to cross reference the figure.

```
\begin{figure}
\centering
\includegraphics[width=0.75\textwidth]{figs/minion}

\caption[Minion]{
Dave the Minion from Despicable Me!}
\label{fig:minion}
\end{figure}
```



Figure: Dave the Minion from Despicable Me!

`\begin[option]{figure}`

Parameter	Position
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<code>h</code>	Place the float here, i.e., approximately at the same point it occurs in the source text (however, not exactly at the spot)
<code>t</code>	Position at the top of the page.
<code>b</code>	Position at the bottom of the page.
<code>p</code>	Put on a special page for floats only.
<code>!</code>	Override internal parameters LaTeX uses for determining "good" float positions.
<code>H</code>	Places the float at precisely the location in the LaTeX code. Requires the float package. This is somewhat equivalent to <code>h!</code>

Subcaption

I can cite Wall-E (see fig. 2b) and Minions in despicable me (fig. 2c). Figure 2 lets me cite the whole figure.

```
\begin{figure}
\centering
\begin{subfigure}[b]{0.3\textwidth}
\includegraphics[width=\textwidth]
{figs/TomandJerry}
\caption{Tom and Jerry}
\label{fig:TomJerry}
\end{subfigure}
\begin{subfigure}[b]{0.3\textwidth}
\includegraphics[width=\textwidth]{figs/WallE}
\caption{Wall-E}
\label{fig:WallE}
\end{subfigure}
\begin{subfigure}[b]{0.3\textwidth}
\includegraphics[width=\textwidth]{figs/minion}
\caption{Minions}
\label{fig:Minnion}
\end{subfigure}
\caption{Best Animations}
\label{fig:animations}
\end{figure}
```

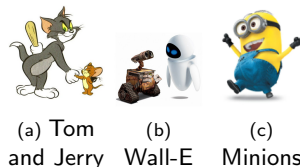


Figure: Best Animations