



# How to make a poster using L<sup>A</sup>T<sub>E</sub>X and tboxen

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## Introduction

We show how to make a poster using L<sup>A</sup>T<sub>E</sub>X and tboxen. This was derived from a poster by Adam Sanborn whose template I believe traces back to Per Sederberg.

Feel free to use and distribute this template freely. There is probably a lot of room for improvement, so please let me know (see my e-mail address above) if you have any suggestions or just to let me know that you have used it and found it helpful.

## Getting Started

I have included the following files:

- poster.tex (main tex file)
- poster.bib (main bib file)
- poster.pdf (example poster produced)
- tboxen.sty (stylesheet)
- berkeley\_seal.pdf (figure)
- sample\_figure.pdf (figure)
- Makefile

tboxen.sty is the main style sheet that is built on top of tikz. There are other somewhat standard dependencies that will be automatically installed if you have a smart L<sup>A</sup>T<sub>E</sub>X environment. Else, you might have to manually download several more files.

Makefile is a very useful makefile that was originally written by Mark Paskin that I use for all my papers and notes. You only need to change poster.tex and poster.bib to your desired files and it will pdflatex them, recompiling and calling bibtex as needed to resolve references. If you have eps figures in a directory that you specify in the makefile, it will also automatically convert those to pdf using a program you specify.

Note that I always use pdflatex, so I will not be much help if you have issues using another program.

## First Steps

The first thing to do is to modify the length and width of the poster to satisfy your requirements. You will need to modify the following lines at the top of the file:

```
\setcounter{width}{95}
\setcounter{height}{115}
\setcounter{extra-length}{0}
```

The width and height are the width and height of your poster in centimeters (currently set at 95 and 115). Notice how boxes move as you change the dimensions of your poster (more on this later).

While working on a poster, I like to temporarily set the length to be extra long so that I can see columns that go over length. To add extra space to the bottom of your poster, set extra-length be 10 or 20 (or more). If you do not do this, pdflatex will truncate your long columns at the bottom of the poster and you will not be able to see text that extends beyond the bottom. Also, for whatever reason, pdflatex will make a two page pdf with a blank first page if your text is too long. I do not know why.

You can also play around with the background color. As you can see, there is currently a gradient from blue at the top to tan at the bottom. This is set by the lines

```
\definecolor{topcolor}{rgb}{0.20,0.40,0.60}
\definecolor{bottomcolor}{rgb}{1,0.99,0.82}
```

Edit the numbers to change the RGB color (range [0,1]). For example, to change your poster to have an all white background, uncomment the lines

```
\definecolor{topcolor}{rgb}{1,1,1}
\definecolor{bottomcolor}{rgb}{1,1,1}
```

## Grid for Editing

When I am editing, I like to turn on a grid so that I can see how things are spaced. There is an internal grid starting at the lower left corner. To place a grid on the top width by height area (as specified earlier), change the line

```
\usegridfalse
```

to be

```
\usegridtrue
```

This will show a grid the size of the actual poster and allow for better layout (see next section). I highly recommend you change the background to be white so that you can see the grid better while editing. The settings of the grid should be good enough for most editing purposes, but if you feel the need to modify it, go to the section where \ifusegrid is used and dig into the code.

## Editing

You are now ready to begin editing the poster. By default, the title will be 3 cm from the top of the poster, will span the full width, and will end 2 cm from both sides. This spacing is done using absolute coordinates (relative to the lower left corner as mentioned in the Grid box). Edit the title section to change this.

All other boxes (unless specified like the title box) are placed with relative locations where you specify the location of the top left corner of the new box relative to another box (examples below). "path" specifies which box we are offset from, "node(.)" specifies the internal name of the current box, and the "addcenteredtitle" adds the specified title to the box having the corresponding name from "node(.)". For example:

```
\path (introduction.south west) ++(0cm,-2cm)
node(getting-started) [style=tbox,text width=23cm] {
...
};
\addcenteredtitle{getting-started}{Getting Started}
```

and

```
\path (introduction.north east) ++(2cm,0cm) node(grid)
[style=tbox,text width=30cm] {
...
};
\addcenteredtitle{grid}{Grid for Editing}
```

Therefore, in the top example, the top left corner of the "getting-started" box starts at the same horizontal position as the "introduction" box, but 2 cm below it and is given the title "Getting Started." In the next example, the "editing" box starts at the same vertical position as "introduction," but 2 cm to the right of where it ends. Also, as specified, the current column is 30 cm wide whereas the left column is only 23 cm wide.

## White Space

Try removing the vspace directly below to see that the next box moves up. There is no direct way to specify the height of a box, but you can use vspace as a filler if you need to or want all columns to end at the same spot.

## Example

Example small box.

Example small box without title.

## That's all!

That's all you really need to know. Add your own text within each box and make your own poster!

(Gratuitous white space above)

## Results

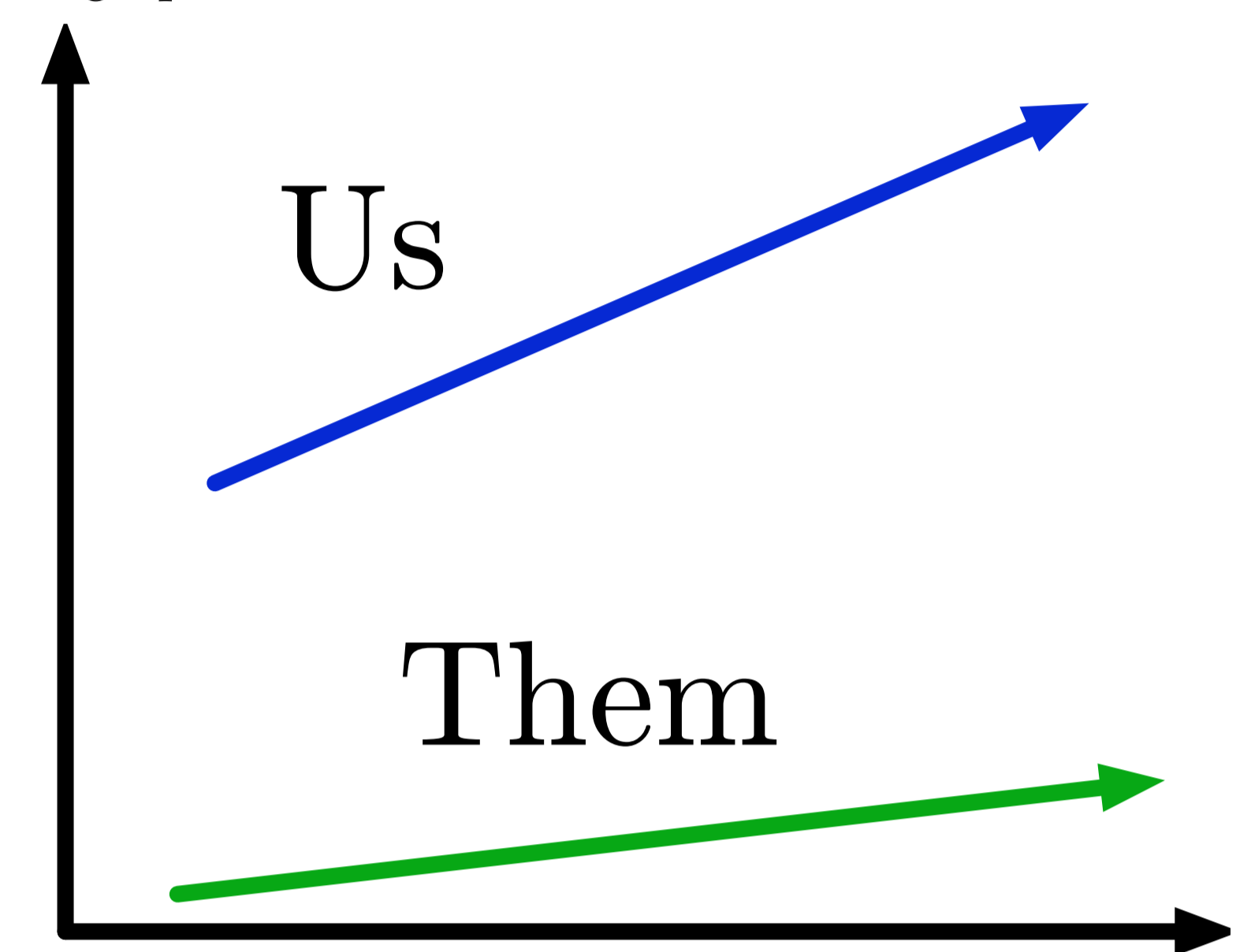
Here we include gratuitous equations and figures to show that you can still do it all within a poster.

$$p(z_{ik} = 1 | z_{(-i)k} = 0) = 1 - \frac{\Gamma(\sum t + t_i + 1) \Gamma(\sum t + \alpha/K + 1)}{\Gamma(\sum t + 1) \Gamma(\sum t + t_i + \alpha/K + 1)}$$

We can even have automatically numbered equations like in normal papers. See Equation (1).

$$p(Z|X) \propto p(X|Z)p(Z) \quad (1)$$

It is also very easy to include graphics. Note that on posters, we do not necessarily want them labeled or in the figure environment. See our great graph!



And we can do the same kinds of references using bibtex, so that when we cite famous old graphical model results, we can simply cite [1].

## References

### References

[1] J. Pearl. *Probabilistic Reasoning in Intelligent Systems: Networks of Plausible Inference*. Morgan Kaufmann, 1988.

Note that above, the small "References" is automatically generated when you use bibtex. To remove the smaller word "References", you should copy over the bib style sheet and modify it to not print it out. This is a byproduct of the way L<sup>A</sup>T<sub>E</sub>X does bibliographies.

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