Introduction to LaTeX
A better way of typesetting documents

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Recurse Center

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- A system/markup language for typesetting documents
- Originally geared towards scientific/technical documents
- Free software
- Very customizable
- Part of the greater TeX family (TeX, XeLaTeX, LuaLaTeX...)

- ▶ Scholarly articles (vastly superior to Word etc.)
- ▶ Theses, dissertations
- ▶ Slides & posters
- ▶ . . . and more!

Pros and cons

Pros

- ▶ The de facto standard for academic articles
- ▶ Many journals, conferences, etc. have style files
- ▶ Very easy to include formulas, symbols, etc.
- ▶ Version-control your documents!
- ▶ Pre-existing packages for pretty much anything;
  If you really can't find one for feature X, write your own!
- ▶ Huge, active community of users

Cons:

- ▶ Learning curve; can be overwhelming at first
- ▶ The perfect document set-up can take a while
- ▶ You *will* get weird errors (see slide 4)

To see how a basic article works, take a look at
`example/simple-example.tex`!

Online collaborative editor: https://www.sharelatex.com/

Resources

Documentation/guides:

- Wikibooks manual:
  https://en.wikibooks.org/wiki/LaTeX
- ShareLaTeX documentation:
  https://www.sharelatex.com/learn

Getting help:

- TeX/LaTeX Stack Exchange:
  http://tex.stackexchange.com/
- Google is your friend!
  Someone else has definitely had problem X.

If you need to leave, now's a good time!
More details after the break.

Using packages

> In preamble: \usepackage{packagename}

- ► Page layout: \usepackage[margin=1.5in]{geometry}
- ► Include image files: graphicx
- ► Include web links: hyperref
- ► Display code: verbatim or listings
- ► Control line spacing more easily: setspace
- ► Customize headers/footers: fancyhdr
- ► Customize figure/table captions: caption
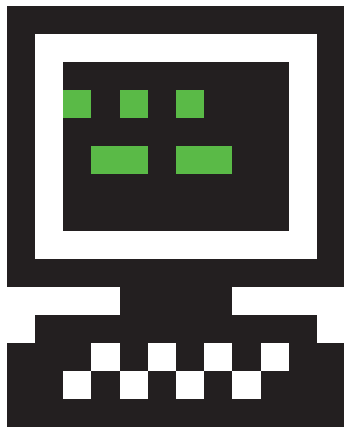- ► More control over lists: enumitem

Figure 1: The RC logo

Table 1: Recursers

Name	Pseudonym	Batch
Veronica Hanus	Flight Witch	Fall 2
Anjana Vakil	Spandex Governor	Fall 2

Useful packages:

- Controlling table widths: `tabularx`
- Multi-row cells: `multirow`
- Better formatting: `booktabs`

Meta-example: You're looking at it! Whoaaa!

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Tip:

The `beamer` class can be used for posters as well.

Slides with `beamer`

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Pitfalls:

- ▶ Standard themes are uuuugly
- ▶ Setting up a template you like can be a headache
- ▶ Many academics who use LaTeX for articles still use PowerPoint etc. for slides/posters

Bibliographies

.bib files

List all your sources in bibtex format.
Many citation systems (e.g. Google scholar, Mendeley) offer an "export to bibtex" option.

biblatex Package

Allows you to fully customize citation and bibliography styles.