Introduction to LaTeX

A better way of typesetting documents

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Recurse Center

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Outline

What is LaTeX?

- 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...)

Use cases

Examples

A basic document

Editing and compiling

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

Limitations

Break point!

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

Code Examples

Using packages

In preamble: `\usepackage{packagename}`

- Page layout: `\usepackage[margin=1.5in]{geometry}`
- Include image files: `graphicx`
- Web links: `hyperref`
- Displaying code: `verbatim` or `listings`
- Controlling line spacing more easily: `setspace`
- Customize headers/footers: `fancyhdr`
- Customizing figure/table captions: `caption`

Math in LaTeX

Figures and captions

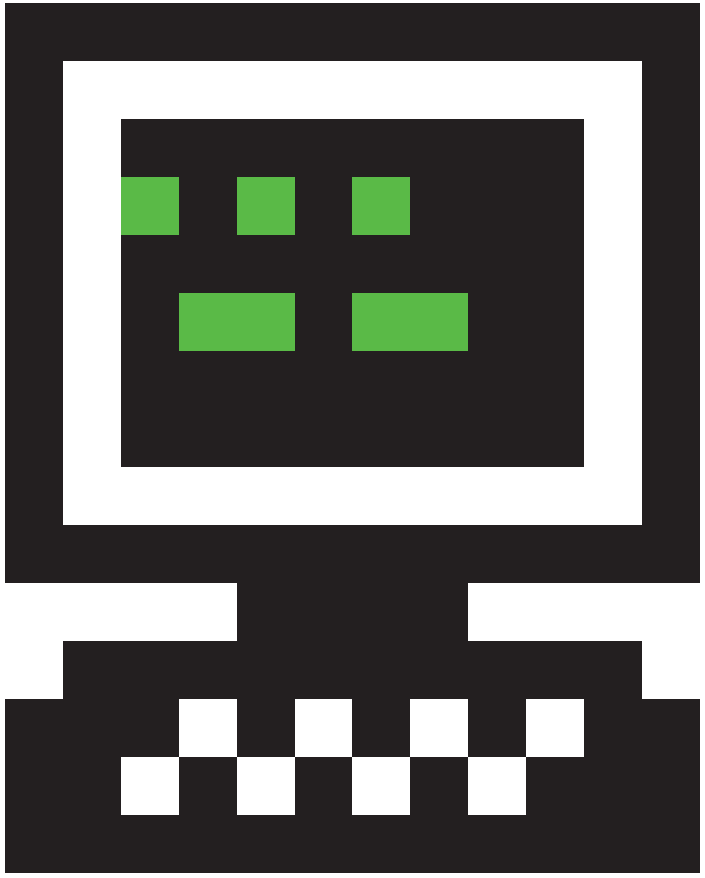

Figure 1: The RC logo

Tables

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`

Slides with `beamer`

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

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

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.