Introduction to LATEX A better way of typesetting documents

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Recurse Center

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Outline



What is LATEX?

Why use it?

Examples

LAT_EXbasics

Limitations

Resources

-Break-

Basic code examples

Using packages

Math in LATEX

Other useful features

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



Resources for learning more



- Wikibooks manual: https://en.wikibooks.org/wiki/LaTeX
- ► ShareLaTeX documentation: https://www.sharelatex.com/learn
- ► TEX/LATEX Stack Exchange: http://tex.stackexchange.com/

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
- ► 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

Math in LATEX



Figures and captions



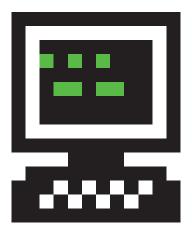


Figure 1: The RC logo

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



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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.