

Wrapped Up in \LaTeX

Jeff Abrahamson, jeffa@cs.drexel.edu
Drexel University, Department of Computer Science
Applied Algorithms Lab

February 17, 2005

February 17, 2005

TEX

February 17, 2005

L^AT_EX

February 17, 2005

Why L^AT_EX?

Why \LaTeX ?

- Typeset mathematics (well)
- Better grades on your homework

\LaTeX is Markup

- (x)emacs, (g)vi(m), etc.

- \$ % \ # { } - ^ ~

- Easier than programming

(Also LyX, almost WYSIWYG.)

Overview

- `edit foo.tex`
- `latex foo.tex`
- `xdvi foo.dvi`
- `dvips, dvipdf, etc.`

Structure

```
\documentclass{report}
```

article, report, book, slides

Structure

- `\usepackage`
- `\include`
- `\section`, `\subsection`, etc.
- `\label`, `\ref`, `\pageref`

Mathematics

`$. . . $`

```
\begin{displaymath}
  a^2 + b^2 = c^2
\end{displaymath}
```

$$a^2 + b^2 = c^2$$

`x+y-z` `vs` `x + y - z`

Mathematics

$$\lim_{x \rightarrow 0} \frac{\sin x}{x} \neq \infty$$

`\lim_{x \rightarrow 0} \frac{\sin x}{x} \neq \infty`

Mathematics

$$\left(\sum_{i=0}^n \frac{1}{i}\right)^2$$

(\sum_{i=0}^n \frac{1}{i})^2

Mathematics

$$\left(\sum_{i=0}^n \frac{1}{i} \right)^2$$

`\left(\sum_{i=0}^n \frac{1}{i} \right)^2`

Environments

- verbatim
- tabular
- figure

Commands

- `\textbf{}`
- `\textit{}`
- `\underline{}`
- `\texttt{}`

More!

- Graphics
- Define new commands
- Define new environments

February 17, 2005

Discussion

And <http://www.cs.drexel.edu/~jeffa/talks/>