

L^AT_EX Tutorials & Workshops

Sponsored by Personal T_EX, Inc.

UC Berkeley Faculty Club

October 12, 2007

L^AT_EX document structure

- Preamble

- Body

 - Front matter

 - Main matter

 - Back matter

Overall document structure

- ▶ Preamble
- ▶ Body

Preamble

- ▶ `\documentclass[options]{style}` — defines the document appearance
 - common styles are `article`, `report`, `book`, `letter`
- ▶ Contains other commands to be used in the document
- ▶ For example, you can define a command to typeset your organization name
 - `\newcommand{\USNDH}{University of Southern North Dakota at Hoople}`

Body

- ▶ The body of the document contains text and markup
- ▶ Always lies between

```
\begin{document}
```

```
...
```

```
\end{document}
```

Body parts

- ▶ Front matter: title, author, abstract, Table of Contents
- ▶ Main matter: chapters, sections, paragraphs
- ▶ Back matter: bibliography, index

Front matter

- ▶ `\title{}`
- ▶ `\author{}`
- ▶ `\date{}`
- ▶ `\begin{abstract} ... \end{abstract}`

Main matter

- ▶ Numbered sections

```
\section{}
```

```
\subsection{}
```

```
\subsubsection{}
```

```
\paragraph{}
```

```
\subparagraph{}
```

...

```
\section{}
```

- ▶ Unnumbered sections

```
\section*{}
```


Main matter (cont.)

- ▶ Environments

```
\begin{itemize}
```

```
...
```

```
\end{itemize}
```

```
\begin{figure}
```

```
...
```

```
\end{figure}
```

Back matter

- ▶ Bibliography (items in the document)

```
\begin{thebibliography}{9}
```

```
\bibitem ...
```

```
...
```

```
\end{thebibliography}
```

- ▶ Bibliography (items in an external file)

```
\bibliography{pancake} — refers to pancake.bib
```

- ▶ To make this work, typeset, run bibtex, typeset again, typeset again

Back matter (cont.)

- ▶ Index
- ▶ Setup: add to preamble
`\makeindex`
`\usepackage{makeidx}`
- ▶ Put `\printindex` where the index will appear in document
— usually at the end
- ▶ Add `\index{entry}` next to words to be indexed
- ▶ Also use `\index{entry!subentry}`
- ▶ To make this work: typeset, run *MakeIndex*, typeset again

Final touches

- ▶ Add `\tableofcontents` and `\listoffigures`
- ▶ Clean up loose ends
- ▶ Proofread
- ▶ That's it!