LaTeX Writing Workflow

Creating research papers and presentations using LaTeX templates.

Templates

1. `draft/draft.tex` - Academic papers and research drafts

2. `draft/slide.tex` - Presentations (Beamer)

All documents in `draft/` folder.

Figure and Table Management

All figures/tables in `figuretable/` must be **programmatically generated**. Never manually edit.

Ensures: reproducibility, consistency, version control.

Generation Scripts

Scripts in `report/` folder:

- R: Rmarkdown (.Rmd) or Quarto (.qmd)

- Python: Jupyter (.ipynb) or scripts (.py)

Output directly to `figuretable/`.

Draft Workflow

1. Create file in `draft/` (e.g., `paper_name.tex`)

2. Copy from `draft.tex` template

3. Update title, author, abstract

4. Reference figures: `\includegraphics[width=0.8\textwidth]{figuretable/figure.png}`

5. Citations: update `library.bib` , use `\cite{key}`

Compilation

```
xelatex draft.tex
bibtex draft
xelatex draft.tex
xelatex draft.tex
```

LaTeX Workshop: Ctrl+Alt+B build, Ctrl+Alt+V view.

Presentation Workflow

1. Copy from `draft/slide.tex`

2. Organize with `\section{}`

3. Slides: `\begin{frame}{Title}`

4. Compile: `xelatex slide.tex`

Magic Comments

```
% !TEX TS-program = xelatex
% !TEX TS-options = -synctex=1
```

Tells LaTeX Workshop to use XeLaTeX with SyncTeX.

Best Practices

- Version control all documents

- Keep papers/presentations in `draft/`

- Only programmatically generated figures in `figuretable/`

- Single `library.bib`

- TBA for notes; GitHub Issues for discussion