Getting Started with `biber` and `biblatex` in TeXShop

Your Name

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1 Introduction

This tutorial introduces `biber`, a backend tool for managing bibliographies in LaTeX using `biblatex`. It is designed as a first-day guide for new users working on macOS using TeXShop.

2 Why Use `biber`?

`biber` offers enhanced features over traditional `bibtex`, including:

- UTF-8 support

- Full Unicode support

- Better handling of complex sorting and citation styles

3 Configuring TeXShop

To use `biber` in TeXShop with `pdflatex`:

1. Open **TeXShop** > **Preferences** > **Engine**.

2. Under the **pdfTeX** section, ensure that `pdflatex` is selected.

3. **BibTeX Engine** type in `biber`

4 Example Citations

Here are example citations using real keys:

- Acciarini et al.: [**acciarini2025closing**]

- Brouwer: [**brouwer1959solution**]

- Bradley 2015: [**bradley2015numerical**]

- Bradley 2014: [**bradley2014bandlimited**]

- Bai 2012: [**bai2012translunar**]

- Aristoff 2012: [**aristoff2012implicit**]

5 Command Line Compilation

If not using TeXShop, the command-line sequence is:

```
pdflatex using-biber.tex
biber using-biber
pdflatex using-biber.tex
pdflatex using-biber.tex
```

6 Citation Monitoring and `nocite`

The `biblatex` system automatically tracks which citations are used in your document. If you want to include references that are not cited explicitly, you can use:

```
\nocite{*}
```

This command prints the entire bibliography, regardless of whether entries are cited.

7 Printing the Bibliography

Include this command where you want the bibliography to appear:

```
\printbibliography
```

Bonus: Citation Styles and Advanced Commands

You can switch styles easily:

- `style=authoryear`

- `style=alphabetic`

- `style=ieee`

- `style=numeric` (default in this document)

Common citation commands:

- `\cite{key}` — short inline citation.

- `\parencite{key}` — citation in parentheses.

- `\textcite{key}` — integrates author into sentence.

- `\fullcite{key}` — full citation, useful for footnotes or explanations.