DOCUMENT TITLE

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Abstract

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1 Format

This project is hosted on GitHub and serves as a template for creating LATEX documents. The theorem-like environments are inspired by the template [sleepymalc, 2022]. For detail implementation, refer to the GitHub repository [Chang, 2025].

- 1.1 Page Layout
- 1.2 Header and Footer
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2 Environment

An environment in LATEX is a section of the document that is formatted in a specific way. This document demonstrates various environments, including the use of scripts, tables, figures, algorithms, and framed environments. The basic usage of an environment is shown below.

```
\begin{environment}
  some content included in the environment
\end{environment}
```

Here are some common environments used in LATEX including enumerate, itemize, and displayquote.

```
1. First item in an enumerated list.
                                                  \begin{enumerate}
                                                    \item First item in an enumerated list.
2. Second item in the same list.
                                                    \item Second item in the same list.
                                                    \item Third item and more ...
3. Third item and more ...
                                                  \end{enumerate}
• First item in an unordered list.
                                                  \begin{itemize}
                                                    \item First item in an unordered list.
• Second item in the same list.
                                                    \item Second item in the same list.
                                                    \item Third item and more ...
• Third item and more ...
                                                  \end{itemize}
```

This is a quote, which uses the csquotes package with customization set inside the document.sty file.

\begin{displayquote}

This is a quote, which uses the

- → \verb|csquotes| package with
- \hookrightarrow customization set inside the
- → \verb|document.sty| file.

\end{displayquote}

2.1 Scripts

To include scripts in your document, the minted package is used. Here is an example of a python script:

| Table | 1: | Sample | table |
|-------|----|--------|-------|
| | | | |

| Name | Description | Size (μm) |
|--------------------------|--|-----------------------------------|
| Dendrite Axon Soma | Input terminal Output terminal Cell body | ~ 100 ~ 10 up to 10^6 |

```
def hello_world():
    print("Hello, World!")
hello_world()
```

\begin{minted}{python}
def hello_world():
 print("Hello, World!")
hello_world()
\end{minted}

2.2 Algorithms

2.3 Tables

All tables must be centered, neat, legible and located at the top of the page. The table title always appears before the table itself, and must be in lower case (except for first word and proper nouns). Note that publication-quality tables do not contain vertical rules [NeurIPS, 2023]. This document template uses the booktabs package, which allows for typesetting high-quality, professional, and publication-ready tables. (See Table 1.)

2.4 Figures

All figures must be centered, neat, legible and located at the top of the page. The figure caption always appears after the figure itself, and should be in lower case (except for first word and proper nouns) [NeurIPS, 2023]. Colored figures are allowed, but it is best for the figure captions and the paper body to be legible if the paper is printed in either black/white or in color. (See Figure ??.)

2.5 Frames

This document demonstrates the usage of the custom theorem-like environments defined in the document.sty package.

Definition 2.1 (Sample Definition). This is an example of a definition environment.

Assumption 2.1 (Sample Assumption). This is an example of an assumption environment.

Conjecture 2.1 (Sample Conjecture). This is an example of a conjecture environment.

Lemma 2.1 (Sample Lemma). This is an example of a lemma. It shares the same style as the theorem environment.

Proof. This is an example of a proof environment. It is used to provide a proof for the lemma.

Theorem 2.1 (Sample Theorem). This is an example of a theorem environment.

Proof. This is an example of a proof for the theorem.

Corollary 2.1 (Sample Corollary). This is an example of a corollary. It also shares the same style as the theorem environment.

Proof. This is an example of a proof for the corollary.

Proposition 2.1 (Sample Proposition). This is an example of a proposition. It also shares the same style as the theorem environment.

Proof. This is an example of a proof for the proposition.

Remark 2.1 (Sample Remark). This is an example of a remark environment.

Example 2.1 (Sample Example). This is an example of an example environment.

Solution 2.1. This is an example of an solution environment.

Problem 2.1 (Sample Problem). This is an example of a problem environment.

These environments are designed to enhance the readability and organization of mathematical documents. Each environment has a specific purpose and style, making it easier for readers to follow the logical flow of the content.

Appendices

References

Chang, H.-S. [2025]. LATEX document template.

NeurIPS. [2023]. Neurips latex template. Retrieved July 24, 2025, from https://neurips.cc/Conferences/2023/PaperInformation/StyleFiles

sleepymalc. [2022]. Latex template.