LaTeX Template

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January 3, 2019

Abstract

This template contains code examples commonly used in academic papers.

1 Motivation

Microsoft Word is sometimes referred to as a "WYSIWYG" editor: "What You See Is What You Get". In contrast, LaTeXis a markup language. A LaTeX document begins as a plain text file, usually with a `.tex` file extension, in which users type commands to specify the layout and style of the document. This text file is later compiled into a `.pdf` file which contains the formatted document.

For example, write in *italics* using `\emph{italics}`, in **bold** using `\textbf{bold}`, and in `monospaced` font using `\texttt{monospaced}`.

A markup language requires the user to learn some new commands to produce their desired formatting, but simultaneously gives the user a greater degree of control over the final document.

2 Math and Aligned Equations

LaTeX excels at typesetting math. Equations can be placed inline $y_t = A_t k_t^{\alpha} h_t^{1-\alpha}$, or as a standalone equation A single equation

$$1 = a \tag{1}$$

A matrix

$$A = \begin{bmatrix} a & b \\ c & d \end{bmatrix} \tag{2}$$

Cases, and plain text in math mode. Spacing in math mode can be added with \.

$$B = \begin{cases} b_1 & \text{if } \alpha > 0 \\ b_2 & \text{if } \alpha \leq 0 \end{cases} \tag{3}$$

to see a list of greek letters and math symbols: `http://web.ift.uib.no/Teori/KURS/WRK/TeX/symALL.html` A single un-numbered equation

$$1 = b$$

A single equation on multiple lines

$$\begin{aligned} a &= b \\ &\quad + c \end{aligned} \tag{4}$$

Multiple aligned equations

$$1 = a + b \tag{5}$$
$$2 = a - b \tag{6}$$

the `\end{align}` command must come directly after the last equation in the `align` environment with no empty lines between them.

3 Outlines

Create an outline

- Stuff
  - Note about Stuff
- Other Stuff

or an enumerated outline

1. Stuff
   (a) Note about Stuff
2. other Stuff

4 Tables

5 Figures

A Appendix Section

B Additional Appendix Section