

Using LaTeX for writing medical research

اعداد و تقديم

م د صفاء سلمان مزبان

م د محمد عماد غانم

م د شذى صلاح اسعد

Introduction to LaTeX

LaTeX is a document preparation system that is widely used in the academic community for writing research papers, journal articles, and books. It provides a high-quality typesetting system that produces professional-looking documents with ease. One of the main advantages of using LaTeX is its ability to handle complex mathematical equations and symbols. This makes it an ideal tool for writing scientific papers and technical reports.

Structure of a LaTeX Document

A typical LaTeX document consists of two parts: the preamble and the body. The preamble contains information about the document such as the author, title, and date. It also includes any packages or settings that are required for the document. The body of the document contains the actual content, including text, equations, tables, and figures. LaTeX uses a markup language to format the text and other elements, which makes it easy to create consistent and professional-looking documents.

Benefits of Using LaTeX

There are several benefits to using LaTeX for research paper writing. One major advantage is the ability to easily manage references and citations. LaTeX integrates with popular reference management software like BibTeX, making it simple to insert and format references throughout the document. Another benefit of LaTeX is its flexibility and customization options. Users can create their own templates and styles, or use pre-existing ones to save time and ensure consistency across multiple documents.

Getting Started with LaTeX

Getting started with LaTeX can seem daunting at first, but there are many resources available to help beginners learn the basics. There are numerous online tutorials and guides, as well as dedicated LaTeX communities where users can ask questions and get support. One important aspect of using LaTeX is choosing the right editor. There are many options available, ranging from basic text editors to more advanced integrated development environments (IDEs). Some popular choices include TeXstudio, Overleaf, and ShareLaTeX.

Tips for Writing Research Papers in LaTeX

When writing research papers in LaTeX, there are several tips and best practices to keep in mind. One important tip is to use version control software like Git to track changes and collaborate with others on the same document. Another useful practice is to break up the document into smaller sections and files, which makes it easier to manage and edit. Finally, it's important to proofread and check for errors before submitting the final document.

Conclusion

In conclusion, LaTeX is a powerful tool for writing research papers and other academic documents. Its ability to handle complex equations and symbols, along with its flexibility and customization options, make it a popular choice among scientists and researchers. While there is a learning curve involved in getting started with LaTeX, the benefits are well worth the effort. With the right resources and tools, anyone can learn to use LaTeX to produce high-quality, professional-looking documents.



sample.tex*

```

1 \documentclass[12pt]{article}
2 \usepackage{amsmath}
3 \title{\LaTeX}
4 \date{}
5 \begin{document}
6   \maketitle
7   \LaTeX{} is a document preparation system for the \TeX{}
8   typesetting program. It offers programmable desktop
9   publishing features and extensive facilities for
10  automating most aspects of typesetting and desktop
11  publishing, including numbering and cross-referencing,
12  tables and figures, page layout, bibliographies, and
13  much more. \LaTeX{} was originally written in 1984 by
14  Leslie Lamport and has become the dominant method for
15  using \TeX; few people write in plain \TeX{} anymore.

```

Logs

Dropbox Revisions ×

Revision	Modified	File size	Review
5b10491060	Sun Mar 27 01:38:42 C...	2 KB	View Revision
5910491060	Mon Feb 29 22:19:59 ...	1 KB	View Revision
5810491060	Mon Feb 29 22:19:34 ...	2 KB	View Revision
5710491060	Mon Feb 29 22:19:06 ...	2 KB	View Revision
5610491060	Mon Feb 29 22:18:26 ...	1 KB	View Revision
5510491060	Mon Feb 29 22:18:12 ...	1 KB	View Revision

PDF Preview ×

Previous

1

of 1

Next

Zoom:

90

\LaTeX is a document preparation system for the \TeX typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing including numbering and cross-referencing, tables and figures, page layout bibliographies, and much more. \LaTeX was originally written in 1984 by Leslie Lamport and has become the dominant method for using \TeX ; few people write in plain \TeX anymore. The current version is \LaTeX 2 ϵ .

$$E_0 = mc^2 \quad (1)$$

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}} \quad (2)$$



untitled - TeXstudio

File Edit Idefix Tools LaTeX Math Wizards Bibliography Macros View Options Help

Structure

untitled X

```
1 %%documentclass%%
2 %%begin document%%
3 %%title%%
4 %%section%%
5
6 \documentclass[a4paper,12pt]{article}
7 \begin{document}
8   \title{My first document}
9   \maketitle
10  \author{My name}
11  \date{\today}
12  i am adding my text.this is the first document on latex.
13 \section{my}
14 \end{document}
```

My first document

February 7, 2019

My name February 7, 2019 i am adding my text.this is the first document on latex.

Line: 13 Column: 11 INSERT

Messages Log Preview Search Results

Process started: pdflatex.exe -synctex=1 -interaction=nonstopmode "texstudio_D\9400".tex

Process exited normally

Page 1 of 1 71%

D:\Markus\Desktop\SE\requirements_document\main.tex - TeXstudio

Datei Bearbeiten Idefix Tools Latex Mathe Assistenten Bibliographie Makros Anzeige Optionen Hilfe

left right part label tiny

Struktur main.tex

- main.tex
 - glossary
 - inputs

```

\documentclass{book}
\usepackage{hyperref}
\usepackage[T2A]{fontenc}
\usepackage[toc]{glossaries}

\setcounter{secnumdepth}{5}
\setcounter{tocdepth}{10}

\title{Requirements Document for \
\cyr{s}\cyr{o}\cyr{s}\cyr{t}\cyr{a}\cyr{n}\cyr{o}\cyr{k} -- Sostanok}

\author{author1 \and author2 \and author3 \and author4}

\date{\today}

\makeglossaries

\begin{document}
\input{glossary}
\maketitle

\printglossaries
\tableofcontents

\input{inputs}
\end{document}

```

Zelle: 1 Spalte: 0 Modus: Einfügen

Meldungen Log Vorschau Suchergebnisse

Glossary

Application programming interface The application programming interface describes how to interact with a system. The interface provides methods which can be accessed from outside the system. [\[2\]](#)

Flexdock Flexdock is the name of a framework where subwindows can be dragged freely. [\[1\]](#)

garbage collection Garbage collection is a routine to search unused files and data sets. Found files will be deleted. [\[2\]](#)

GUI Graphical User Interface. [\[2\]](#)

Hyper Text Markup Language 5 HTML 5 is a markup language which is used for structuring and presenting content for the World Wide Web. [\[2\]](#)

Hypertext Transfer Protocol Secure Hypertext Transfer Protocol Secure (HTTPS) is a communications protocol for secure communication over a computer network, with especially wide deployment on the Internet. Technically, it is not a protocol in and of itself, rather, it is the result of simply layering the Hypertext Transfer Protocol (HTTP) on top of the SSL/TLS protocol, thus adding the security capabilities of SSL/TLS to standard HTTP communications. (source: en.wikipedia.org: 11.11.2013). [\[1\]](#)

Interactive Connectivity Establishment Interactive Connectivity Establishment (ICE) is a technique to establish connections with clients behind a router or firewall. [\[2\]](#)

JavaScript JavaScript is an interpreted computer programming language. As part of web browsers, implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It has also become common in server-side programming, game development, and the creation of desktop applications. (source: en.wikipedia.org: 11.11.2013). [\[2\]](#)

3

Schrittaufzeichnung - Aufnahme läuft

Aufzeichnung anhalten Aufzeichnung beenden

DEU 17:52 05.11.2015

D:\usuario\Desktop\latex\texstudio.tex - TeXstudio

Archivo Editar Idefix Herramientas LaTeX Matemáticas Asistentes Bibliografía Macros Visualizar Opciones Ayuda

Símbolos de operadores

texstudio.tex

```

7 \title{titulo}
8 \author{nombre}
9 \date{\today}
10 \begin{document}
11 \maketitle
12 \tableofcontents
13 \section{características}
14 Corrección Corrección
15 ortográfica
16
17 Ejemplo de pre-visualización
18 y de Auto-completado
19 de comandos
20 \begin{align}
21 \hat{H}\psi = E\psi \\
22 \hat{H} = \frac{\hat{p}^2}{2m} + \hat{V}
23 \end{align}
24

```

Comando: \dagger
Paquete:amssymb
Carácter Unicode: †

típico más utilizado todo

\hat{a}

Palabras repetidas. Distancia 1

Línea: 22 Columna: 37 INSERTAR

Mensajes Registro Avance Resultados de la Búsqueda

Proceso iniciado: pdflatex.exe -synctex=1 -interaction=nonstopmode "texstudio".tex

El proceso terminó normalmente

Proceso iniciado: latex.exe -src -interaction=nonstopmode "cB5276".tex

Contents

0.1 ortográfica ... 3

0.1 sualización y de Auto-completad

1) $\hat{H}\psi = E\psi$

2) $\hat{H} = \frac{\hat{p}^2}{2m} + \hat{V}$

Páginas 2 al 3 de 3 61%

es_CO - UTF-8 - Listo Modo Normal

Thank you