

**LaTeX + Vim  
= Vimtex**

*By Taper*

# I love being

Simple

Practical

# Easy

- Appropriate Usage
- *free* Templates(模版)
- Filling the Blanks

# Focus on Writing

- Separate Content & Display
- Separate Writing & Design
  - ~~○ Font~~
  - ~~○ Size~~
  - ~~○ Color~~

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0101010100101011000

Digitalization

# Digitalization

- Notes
- C.V.
- Undergraduate Thesis

# Digitalization

- Online Q&A
- Math Overflow
- Physics Overflow

# Digitalization

○ Digital Tools



# Collaboration & Cooperation

Yours are helpful

# Collaboration & Cooperation

Don't be Alone

# Vim

# Vim

Less Repetition

# Vim is almost Everywhere

Eclipse IDE, Sublime Text, Visual Studio

Notepad++

Chrome, Firefox

Mac/Linux (Unix)

...

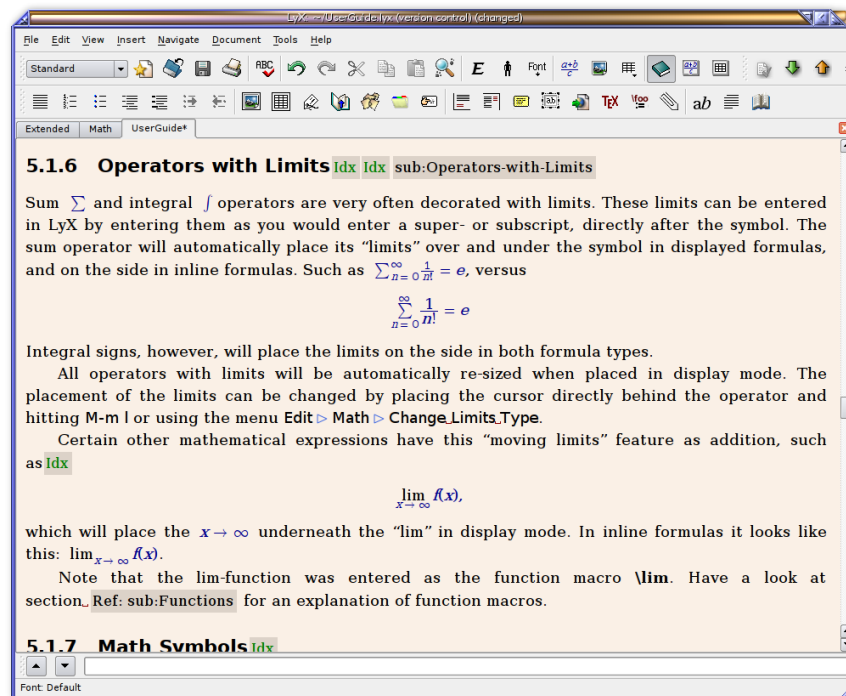
# Alternatives

.....

- *GNU Emacs*
- LyX
- GNU TeXmacs

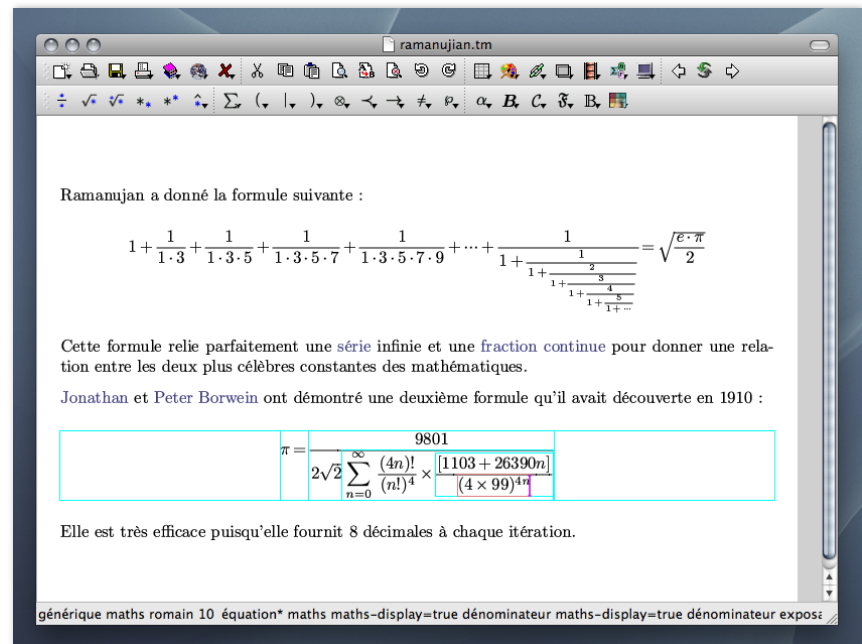
# LyX

○ 翁文康



# TeXmacs

○ 孟斐





What You See Is What You Get

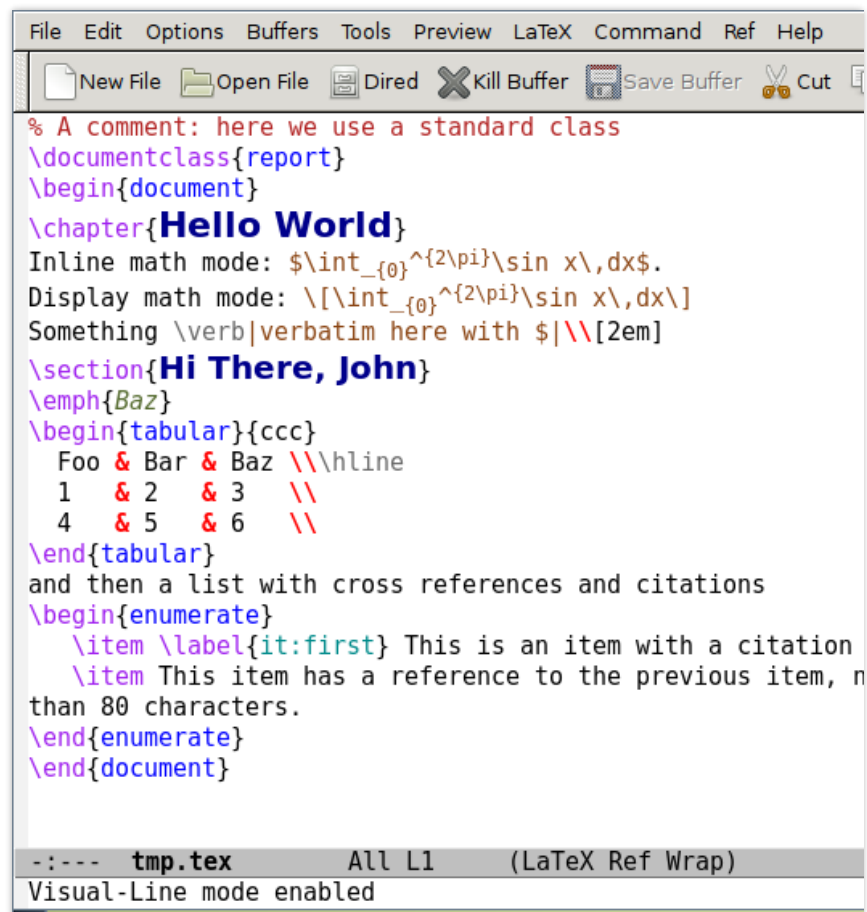
- LyX

- GNU TeXmacs

*NOT Distraction-free*

# GNU Emacs

○ 江帆



```
% A comment: here we use a standard class
\documentclass{report}
\begin{document}
\chapter{Hello World}
Inline math mode:  $\int_0^{2\pi} \sin x, dx$ .
Display math mode: 
$$\int_0^{2\pi} \sin x, dx$$

Something \verb|verbatim| here with  $\backslash[2em]$ 
\section{Hi There, John}
\emph{Baz}
\begin{tabular}{ccc}
Foo & Bar & Baz \\ \hline
1 & 2 & 3 \\
4 & 5 & 6 
\end{tabular}
\end{tabular}
and then a list with cross references and citations
\begin{enumerate}
\item \label{it:first} This is an item with a citation
\item This item has a reference to the previous item, more
than 80 characters.
\end{enumerate}
\end{document}
```

--:-- tmp.tex All L1 (LaTeX Ref Wrap)  
Visual-Line mode enabled

# Schedule

1. Motivation & Intro 
2. Install Vimtex 
3. Basics of Vim & Latex 
4. Tips and Pitfalls 

# 2.

## Install Vimtex

- Install LaTeX
- Install Git
- Install Python
- Install TeX Studio, Mathematica
- Install Vim, TeX Studio
- Install Plugins for Vim
  - Vimtex
  - Ultisnips
  - Neocomplete
  - ...



# 3.

## Foundation

- Markdown
- Vim Gymnastics
- LaTeX 123
- Using Google, and Internet



# 4.

## Flexible

- Tips & Pitfalls
- Tips on Vim Editing
- Useful Packages
  - *for* Mathematicians & Physicist
- Case based



Q & A



# Mathematics

```

\begin{align}
i \frac{\partial}{\partial t} \ket{\Psi_I(t)} &= i \frac{\partial}{\partial t} (e^{i\hat{H}_0 t} \ket{\Psi_S(t)}) \\
&= i (\hat{H}_0) \cdot \ket{\Psi_I(t)} + e^{i\hat{H}_0 t} \frac{\partial}{\partial t} \ket{\Psi_S(t)} \\
&= -\hat{H}_0 \ket{\Psi_I(t)} + e^{i\hat{H}_0 t} (\hat{H}_0 + V) \ket{\Psi_S(t)} \\
&= [-\hat{H}_0 + e^{i\hat{H}_0 t} (\hat{H}_0 + V) e^{-i\hat{H}_0 t}] \ket{\Psi_I(t)} \\
\label{eq:motion} &= \hat{V}_I \ket{\Psi_I(t)}
\end{align}

```

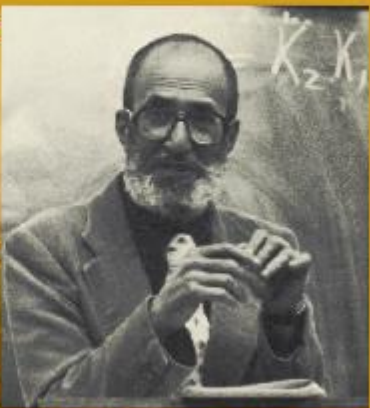


# WORDS $>$ NUMBERS

- Less equations
- More words

# Recommended Reading

Paul R. Halmos



## I WANT TO BE A MATHEMATICIAN

*An Automathography*



Springer Science+Business Media, LLC

# WORDS > NUMBERS

“Many graduate-school advisors have noted that an applicant for a mathematics fellowship with a **high score on the verbal part of the GRE** is a better bet as a Ph.D. candidate than one who did **well on the quantitative part but badly on the verbal.**”

---- Paul. R. Halmos

**This morning...**

# Take Home

<https://vim-adventures.com/>

<http://physics.stackexchange.com/>

<https://physicsoverflow.org/>

<http://math.stackexchange.com/>

<http://mathoverflow.net/?tab=featured>

<https://www.biostars.org/>

<http://tex.stackexchange.com/questions/339/latex-editors-ides>

<https://www.sharelatex.com/templates>

<https://www.sharelatex.com/project/58ce64e6f98f21f60fedc9af>

<https://www.overleaf.com/latex/templates>

<https://ncatlab.org/nlab/show/HomePage>

# Take Home

1. Register a website you feel interested.
2. Try a LaTeX template.
3. Play Vim Adventure (level 1~3).
4. See my GitHub: <https://github.com/we-taper/Draft>

*End*

*À bientôt!*