

# L<sup>A</sup>T<sub>E</sub>X Workshop

Wednesday **12<sup>th</sup> of July** from 15:00 to 17:00, Coffee Room Abt.131

## What is L<sup>A</sup>T<sub>E</sub>X?

L<sup>A</sup>T<sub>E</sub>X is a typesetting/writing programm for any sort of text (like this one) but particularly recommended for reports, PhD theses, publications, papers and books. The main advantages of L<sup>A</sup>T<sub>E</sub>X are

- very high stability even for large documents containing many images,
- excellent representation of mathematical formula (e.g.  $\sqrt[3]{\frac{x^2}{4xy+\pi}}$ )
- and professional layout.

To work with L<sup>A</sup>T<sub>E</sub>X in Windows you will need the programm MikTeX<sup>1</sup> (freeware), a text editor and Adobe Reader. Your text will implemented in the editor within a L<sup>A</sup>T<sub>E</sub>X environment and compiled with MikTeX to produce a pdf file.

## How do I install L<sup>A</sup>T<sub>E</sub>X?

You can find complete installation instructions at [www.dante.de/help/documentation/miktex](http://www.dante.de/help/documentation/miktex) (in german).

1. Install **MikTeX** from [www.miktex.org](http://www.miktex.org). Download/Install → MikTeX 2.4 → Download (the setup wizard). It might be useful to read the installation procedure given on the same page. I suggest you download the *small* package set to get started.
2. Now you need a text editor. **GVim** is freeware, but I prefer **WinEdt**. WinEdt is shareware, i.e. you can use it for free for 30 days but must register afterwards and pay a little fee (~ 30 \$) for further use. For Gvim, download gvim70.exe [here](#) and for WinEdt, got to its [homepage](#) → download WinEdt5.4 from CTAN → Germany.
3. Finally you will have to make a small modification of your computer settings so MikTeX can be found when you try to compile your text. How to change your settings is described within the [installation instructions](#) in section 4.4.2 (*Setzen der Umgebungsvariable Path*).

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<sup>1</sup>For Apple users I recommend [TeXShop](#).

Test your installation by opening a new file in WinEdt (File → New), type

```
\documentclass{article}
\begin{document}
Test
\end{document}
```

into the editor and save the file as test.tex (File → Save as ...). Compile your file (Accessories → PDF → PDF TeXify). If a pdf file is opened with the text “Test” your installation was successful.

## What will I learn at the workshop?

Please make sure  $\LaTeX$  runs correctly on your computer *before* the workshop. I will be treating the following topics:

- $\LaTeX$  environment and document structure
- Typesetting text
- Typesetting mathematical formulae
- Making tables, inserting Excel tables
- Inserting images
- Bibliography with Bib $\TeX$

## Where can I get more information on $\LaTeX$ ?

The possibilities of  $\LaTeX$  are so numerous that they can not all be treated during a single workshop. But you will find many answers to your questions on the internet (just google). For a beginning, the following may be useful:

- [The not so short Introduction to  \$\LaTeX\$](#)  by Tobias Oetiker is a good and detailed guide for beginners,
- [Getting to grips with  \$\LaTeX\$](#)  is a comprehensive online tutorial by Andrew Roberts,
- [The  \$\LaTeX\$  Cheat Sheet](#) is a useful summary of the most important commands,
- [CTAN](#), the Comprehensive  $\TeX$  Archive Network contains all material related to  $\LaTeX$  you will ever need.