Thesis title

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Abstract

This document shows you the syntax to type your thesis in latex or org-mode. It illustrates how to make footnotes, tables, equations and references to tables, equations etc.

If you want to work with latex only, look at the `.tex` file of this document. If you want to use emacs org-mode, then use the `.org` file. The pdf shows what the file looks like if you export it.

Running python code in this file only works in emacs org-mode; not in latex.

Contents

1 Introduction

This file shows you how to use emacs org mode to write a thesis. Shows you how to cite references, make footnotes, equations etc.

Alternatively, you can use latex directly in which case you can consider the file in this repository that ends in `.tex`.

In order to use emacs, you need to install it. The official website's download information: `https://www.gnu.org/software/emacs/download.html`

In Section 1 we explain how emacs can be installed.

2 Literature references

There are a number of ways in which you can do literature citations in org-mode. We will work with org-ref:

- `https://github.com/jkitchin/org-ref`

The syntax for including references is as follows. See Farrell and Klemperer 2007 for an analysis. We can also have references between brackets (Athey and Imbens 2019): that is, `citep` instead of `citet`. `armstrong-2007-chapt-coord` is the bibtex key, as you can see in the file `references.bib`.

If you use the `init.el` file for emacs, you can use the keys: C-c] (press control (Ctrl) and c together; release these keys and then press the]-key). The bottom part of the screen then gives you possible papers to cite from your `references.bib` file.

3   Model

As we explained in section 1.

Here we have some in-line math: x^2.[1]

$$a^2 + b^2 = c^2 \tag{1}$$

As we show in equation (1).

See Table 1.

Table 1:   This table shows unemployment and gdp per head.

country	unemployment	gdp
NL	0.06	20000
UK	0.01	19500
BE	0.08	21100
average	0.05	20200

See Figure 1.

4   Conclusion

5   Bibliography

Athey, Susan, and Guido W. Imbens. 2019. "Machine Learning Methods That Economists Should Know About." *Annual Review of Economics* 11 (1): 685–725. doi:10.1146/annurev-economics-080217-053433.

Farrell, Joseph, and Paul Klemperer. 2007. "Chapter 31 Coordination and Lock-in: Competition with Switching Costs and Network Effects," edited
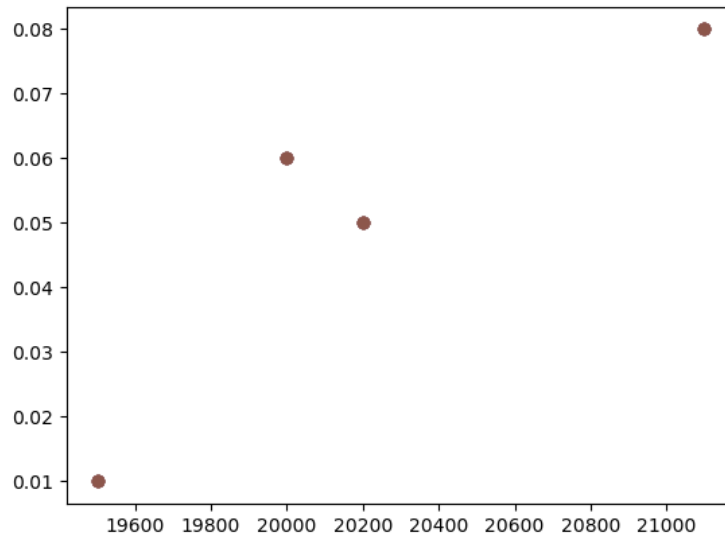
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[1] This is a footnote.

Figure 1: Figure with unemployment and gdp

A   Things to install

A.1   latex

Install latex: `https://www.latex-project.org/get/`

A.2   latex editor

- winedt: `https://www.winedt.com/`

- overleaf: `https://www.overleaf.com/`

- texmaker: `https://www.xm1math.net/texmaker/`

- tex studio: `https://www.texstudio.org/`

More general editors where you can also edit latex:

- atom: `https://atom.io/`

  - and how to use with latex: `https://towardsdatascience.com/setting-up-latex-on-your-atom-editor-7ea624571d50`

- vim: `https://www.vim.org/docs.php`

A.3   git

install git: `https://git-scm.com/downloads`

A.4   Emacs on Windows

- go to: `http://mirror.team-cymru.com/gnu/emacs/windows/emacs-27/`

- download emacs-27.2-x86$_{64}$-installer.exe to your Downloads folder: `http://mirror.team-cymru.com/gnu/emacs/windows/emacs-27/emacs-27.2-x86_64-installer.exe`

- run the downloaded `exe` file

A.5 Emacs on Mac OS

For Mac Os:

- install homebrew: `https://brew.sh/`

    Open a terminal and type the following lines:

```
brew tap d12frosted/emacs-plus
brew install emacs-plus
```

A.6 Emacs on Linux

When you are using Linux, you probably know what you are doing. But just in case, the commands for your package manager can be found here: `https://www.gnu.org/software/emacs/download.html`

A.7 org-mode

When you install emacs, org-mode is installed as well (comes with emacs)

A.8 introductions to emacs

It is easy to get lost in emacs. Hence do not try to use everything at once. A couple of basic things, you need from the start (like opening and saving files). For the other things: move step-by-step.

A great starting point, explaining key-bindings etc. is:

- `https://systemcrafters.net/emacs-essentials/absolute-beginners-guide-to-emacs/`
    - and the video that goes with it: `https://www.youtube.com/watch?v=48JlgiBpw_I`
    - this explains things like "M-x", "C-c", "C-x" etc. which you can see when you use menu items like "file"
        * to illustrate, use your mouse to click on "File" in the top left corner
        * the first item is: "Visit New File... C-x C-f"
        * you can click on this item to open a file; but you can also use the key combination C-x C-f which means: press Control (Ctrl) and x together; release these keys; then press Ctrl and f together. This allows you to open a file. If you type the name of a file that does not exist yet, this new file will be created

    * you save a file with C-x C-s; hence you can quickly save a file
     by pressing these keys without having to reach for the mouse
    * the emacs configuration below helps as it uses the which-key
     package. After typing C-x, it shows you what other keys you
     can use.

`https://www.youtube.com/playlist?list=PL9KxKa8NpFxIcNQa9js7dQQIHc81b0-Xg`

A.9 next steps

A.9.1 scimax

`https://github.com/jkitchin/scimax`
 youtube playlist with scimax features: `https://www.youtube.com/playlist?`
`list=PL0sMm0aE_gs3E0OjExoI7vlCAVygj6S4I`

A.9.2 Doom

`https://github.com/hlissner/doom-emacs`
 Doom emacs for noobs: `https://www.youtube.com/watch?v=iab2z21cRqA`
 Doom emacs getting started: `https://www.youtube.com/watch?v=dr_`
`iBj91eeI`
 youtube playlist: `https://www.youtube.com/playlist?list=PLhXZp00uXBk4np17N39WvB80zgxlZf`