

We are organising an informal **workshop** on the **intermediate and advanced topics** in \LaTeX . Although there are various \LaTeX tutorials and templates floating around, but they often omit some tools and packages that are useful in meteorology and geophysics. The workshop is primary focused on PhD students who are starting to write their thesis, but it is open to other \LaTeX users as well.

1. Monday 19. June — from 12:45 in CIP room
2. Wednesday 21. June — from 15:00 in CIP room

You can work from CIP workstation or bring your own device.

target audience:	people with previous experience with \LaTeX
aims:	discuss \LaTeX topics practise skills
duration:	one and half hour from start time or until you start getting tired
topics:	see following sections 0.1 and ??
registration:	comment in this Slack thread

0.1 Monday

0.1.1 Combining Document from Pieces

Combining documents from multiple files speeds up the editing process, makes collaboration easier, and also lowers the risk of accidentally rewriting something. You can see an example how most of the header of this document is in a separate file. To try this, write some dummy text in a separate file and insert it here using the `input` command:

Whatever

Whatever in bold

The `input` statement can also work on multiple levels

1. Make a copy of `style1headerfooter.tex` and modify it.
2. Open `in1header.tex` and replace `style1headerfooter.tex` with the name of your new file.
3. Recompile the main document.

0.1.2 Automatically Generated Lists

There is an easy way how to create list of figures, tables, as well as index of phrases.

Advanced LaTeX Workshop

Your Name Here

19 June 2023

Contents

0.1	Monday	1
0.1.1	Combining Document from Pieces	1
0.1.2	Automatically Generated Lists	1
	Table of Contents	i
	List of Tables	i
	List of Figures	i
	List of Symbols	ii
	List of Abbreviations	ii
3	Monday	1
3.2.8	Counters	1
3.3.1	This is Empty Subsection	1
3.3.5	Modifying Plots and Schematics	1
3.3.6	Customizing Links, References, and Citations	2
3.3.7	Version Control and Comparison	2

List of Tables

List of Figures

1.1	Fake Figure	ii
-----	-------------	----

3.1 Diagrams and plots	1
----------------------------------	---

List of Symbols

notation	unit	meaning
\sim	·	similar - assignment of probability distribution
\propto	·	proportional equivalent to; i.e. equivalent up to a constant
$\overline{(\cdot)}$	·	horizontal averaging
$\overline{\varphi}$	·	mean value of a quantity φ

List of Abbreviations

notation	meaning
AWS	automatic weather station
ABL	atmospheric boundary layer
CAO	cold-air outbreak
CBL	convective boundary layer
SBL	stable boundary layer
Sc	stratocumulus
SH	sensible heat
TKE	turbulent kinetic energy

Chapter 3

Monday

3.2.8 Counters

How did we suddenly jump from section 3.3.5 to 3.2.8 ? We are now in the chapter 3 or III in roman numbers.

Warning 1: No new ideas here.

3.3.1 This is Empty Subsection

3.3.5 Modifying Plots and Schematics

Warning 2: The figure might be boring.

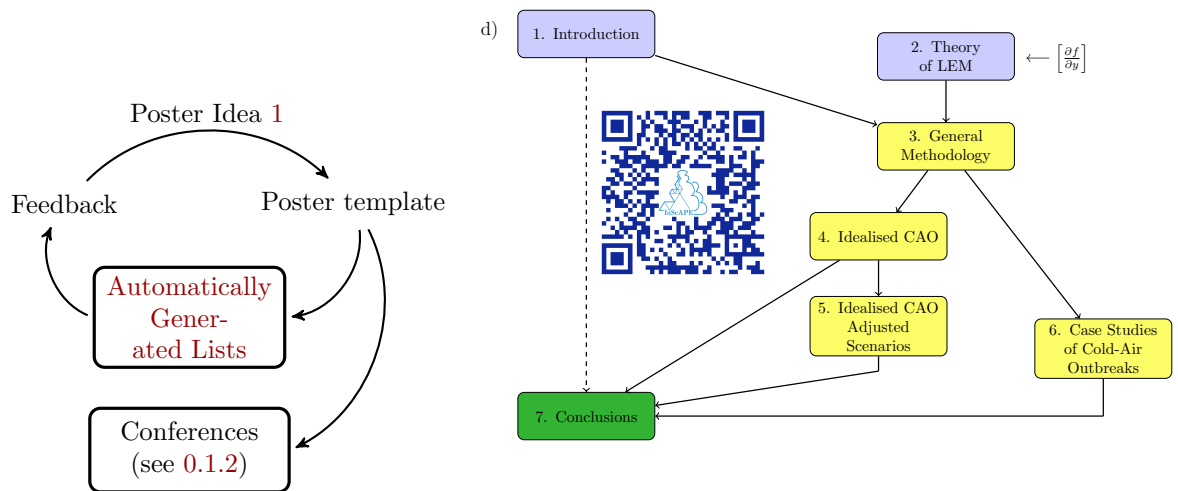


Figure 3.1: Here we combine a **Tikz** diagrams and images. We can also compile the figure as separate **standalone** pdf and then include it as a graphical element.

3.3.6 Customizing Links, References, and Citations

Such as modifying the style of links to other parts of the same document ([Automatically Generated Lists](#)) and links to [external websites](#).

3.3.7 Version Control and Comparison

We also look at the external tools such as `latexdiff` that compares two \LaTeX files, and `pdfdiff` that compares ... you know what.