Introduction to writing with LaTeX

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Outline

- Morning lecture
  - What is LaTeX
  - Some LaTeX history
  - Motivating LaTeX
  - LaTeX software environment
  - Elements of LaTeX documents
  - Scientific documents with journal LaTeX templates
  - LaTeX for slides and posters
  - Collaborative writing and versioning of LaTeX documents
- Afternoon hands-on
  - Develop your LaTeX manuscript
  - Style your manuscript with journal templates
  - Revise your manuscript with track changes
  - Create slides and a poster to present your work
  - Collaborative writing with your co-authors

Schedule

10.00 - 11.30	Lecture
11.30 - 12.30	*Lunch*
12.30 - 13.15	Hands-on I
13.15 - 13.30	*Break*
13.30 - 14.15	Hands-on II
14.15 - 14.45	*Coffee break*
14.45 - 15.30	Hands-on III
15.30 - 15.45	*Break*
15.45 - 16.30	Hands-on IV
16.30 - 17.00	Closing

About me

- Postdoc with PANGAEA at MARUM
- PhD in environmental informatics at University of Eastern Finland
- MSc in informatics at University of Zurich
- MSc in environmental science at University of Eastern Finland *(soon)*
- My history with LaTeX goes back to 2001 when ...

What is LaTeX

- Document preparation system
- Most often used for technical or scientific documents
- Worry less about style and more about content
- Write plain text rather than formatted text
- Leave document design to designers
- Free software
- Available for Windows, Mac OS, Linux, Online

https://www.latex-project.org

What is LaTeX

- **Markup tagging** is central to writing with LaTeX
- Label parts of the document using tags, e.g. \textit{}
- It is used to do things like
  - Define document structure, e.g. chapters, sections
  - Style text, e.g. italic, tables
  - Cite, footnote, cross-reference, ...
- Anyone familiar with HTML?

Markup tagging

```
1  \textit{Example}
2  markup
3  \underline{tagging}
```

Example markup <u>tagging</u>

Markup tagging

```
1  \begin{itemize}
2  \item Eggs
3  \item Milk
4  \item Cheese
5  \item Carrots
6  \end{itemize}
```

- Eggs
- Milk
- Cheese
- Carrots

A bit of history

- LaTeX was authored by L. Lamport, an American computer scientist
- Originally released in 1985