LUT University

LAND
OF THE
CURIOUS

LUT School
Lappeenranta–Lahti University of Technology LUT

PRESENTATION TITLE

PRESENTATION SUBTITLE

Presented by Author

March 20, 2023

Supervisor: Prof. Supervisor, University

Opponent: Prof. Opponent, University

OUTLINE

BEAMER FOR LUT SLIDES

» We assume you can use LaTeX; if you cannot, you can learn it here

» Beamer is one of the most popular and powerful document classes for presentations in LaTeX

» Beamer has also a detailed user manual

» Here we will present only the most basic features to get you up to speed

Compared to PowerPoint, using LaTeX is better because:

» It is not What-You-See-Is-What-You-Get, but What-You-*Mean*-Is-What-You-Get: you write the content, the computer does the typesetting

» Produces a `pdf`: no problems with fonts, formulas, program versions

» Easier to keep consistent style, fonts, highlighting, etc.

» Produces side notes

» Math typesetting in TeX is the best:

$$i\,\hbar\frac{\partial}{\partial t}\Psi(\mathbf{r},t) = -\frac{\hbar^2}{2\,m}\nabla^2\Psi(\mathbf{r},t) + V(\mathbf{r})\Psi(\mathbf{r},t)$$

SELECTING THE CLASS

To start working with lutbeamer, start a LaTeX document with the preamble:

Minimum LUT Beamer Document

```
\documentclass[light]{lutbeamer} % or [dark]
\setbeameroption{hide notes} % or {show only notes} or
% {show notes on second screen=right}
\begin{document}
\begin{frame}{Hello, world!}
\framesubtitle{Subtitle}
\end{frame}
\end{document}
```

TITLE PAGE

To set a typical title page, you call some commands in the preamble:

The Commands for the Title Page

```
\setdepartment{LUT School of ... }
\author{Author}
\title[Short presentation title]{Presentation title}
\subtitle{Presentation subtitle}
\date{Defaults to today's}
```

WRITING A SIMPLE SLIDE

LUT University

It's really easy!

» A typical slide has bulleted lists
» These can be uncovered in sequence

Code for a Page with an Itemised List

```
\begin{frame}
  \frametitle{Writing a Simple Slide}
  \framesubtitle{It's really easy!}
  \begin{itemize}[<+->]
    \item A typical slide has bulleted lists
    \item These can be uncovered in sequence
  \end{itemize}
\end{frame}
```

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USING COLOURS

- » You can use colours with the `\textcolor{<color name>}{text}` command
- » The colours are defined in the `lutcolor` package:
    - – Primary colour: green;
    - – Contrast colours: orange, black, pink;
    - – Additional colours: grey, gr, viridian, rdbu7
- » Do *not* abuse colours: `\emph{}` is usually enough
- » Use `\alert{}` to bring the focus somewhere
- » If you highlight too much, you don't highlight at all!

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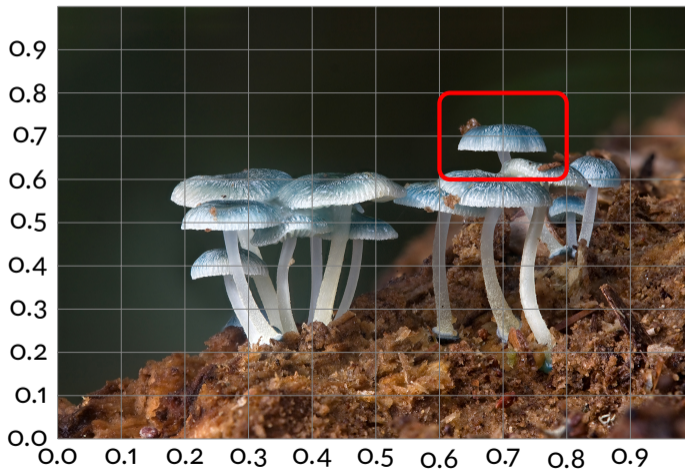
ADDING IMAGES

Adding images works like in normal LaTeX:

Code for Adding Images

```
\usepackage{graphicx}
% ...
\includegraphics
[width=\textwidth]{figures/Mycena_interrupta}
```

HIGHLIGHTING AN IMAGE REGION

SPLITTING IN COLUMNS

Splitting the page is easy and common; typically, one side has a picture and the other text:

This is the first column   And this the second

Column Code

```
\begin{columns}
    \begin{column}{0.6\textwidth}
        This is the first column
    \end{column}
    \begin{column}{0.3\textwidth}
        And this the second
    \end{column}
    % There could be more!
\end{columns}
```

FONTS

» The paramount task of fonts is being readable

» There are good ones...

   – Use serif fonts only with high-definition projectors
   – Use sans-serif fonts otherwise (or if you simply prefer them)

» ... and not so good ones:

   – `Never use monospace for normal text`
   – Gothic, calligraphic or weird fonts should always be avoided

USING ABBREVIATIONS

To use abbreviations, add new glossary entry in `nomenclature.tex` file.

- » To refer to the entry, use
    - – electric vehicle (EV)
    - – EV
    - – EVs
    - – electric vehicle (EV)

The Commands for the nomenclature

```
% ....
    \gls{ev}, \Gls{ev}, \glspl{ev},  \glsfirst{ev}
% ....
```

LOOK

» To change the colour of the title dash, give one of the class options green (default), orange, pink, black, or nodash.

» To change between the light and dark themes, give the class options light (default) or dark. It is not possible to switch theme for one slide because of the design of Beamer—and it's probably a good thing.

» The aspect ratio defaults to 16:9, but you can change it to 4:3 for old projectors by passing the class option aspectratio=43; any other values accepted by Beamer are also possible.

OUTLINE

GOOD LUCK!

» Enough for an introduction! You should know enough by now
» If you have corrections or suggestions, send them to me!

BACK-UP SLIDES

» You can have some additional info hidden from the main presentation below

BIBLIOGRAPHY

Use BibTeX. Put your bibliography in a separate file (e.g. references.bib): In [1] a detailed description of the use of $\LaTeX$ is given.

[1] Leslie Lamport. *LaTeX: A Document Preparation System*. Reading, MA: Addison–Wesley Pub. Co., 1986.