sadsa Beamer Presentation Theme

Using LaTeX to prepare slides

Master's Degree in Computer Science

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This template is a based on SINTEF Presentation from Federico Zenith and its derivation Beamer-LaTeX-Themes from Liu Qilong

In the following you find a brief introduction on how to use LaTeX and the beamer package to prepare slides, based on the one written by Federico Zenith for SINTEF Presentation

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► Summary

- 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.
- Math typesetting in TeX is the best:

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

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

Minimum SINTEF Beamer Document

```
\documentclass{beamer}
\usetheme{sintef}
\begin{document}
\begin{frame}{Hello, world!}
\end{frame}
\end{document}
```

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

The Commands for the Title Page

```
\title{Sample Title}
\subtitle{Sample subtitle}
\author{First Author, Second Author}
\date{\today} % Can also be (ab)used for conference name &c.
```

You can then write out the title page with \maketitle.
To set a **background image** use the \titlebackground command before
\maketitle; its only argument is the name (or path) of a graphic file.
If you use the **starred version** \titlebackground*, the image will be clipped to a
split view on the right side of the title slide.

Writing a Simple Slide
It's really easy!

- A typical slide has bulleted lists

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Code for a Page with an Itemised List

```
\begin{frame}{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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Changing Slide Style
2 Personalization

- You can select the white or *maincolor* **slide style** *in the preamble* with
  \themecolor{white} (default) or \themecolor{main}
  — You should *not* change these within the document: Beamer does not like it
  — If you *really* must, you may have to add \usebeamercolor[fg]{normal text}
    in the slide
- You can change the **footline colour** with \footlinecolor{color}
  — Place the command *before* a new frame
  — There are four "official" colors: maincolor,   sintefyellow,
      sintefgreen,   sintefdarkgreen
  — Default is no footline; you can restore it with \footlinecolor{}
  — Others may work, but no guarantees!
  — Should *not* be used with the maincolor theme!

Standard Blocks

These have a color coordinated with the footline (and grey in the blue theme)

```
\begin{block}{title}
content...
\end{block}
```

Colour Blocks

Similar to the ones on the left, but you pick the colour. Text will be white by default, but you may set it with an optional argument.

```
\begin{colorblock}[black]{sinteflightgreen}{title}
content...
\end{colorblock}
```

The "official" colours of colour blocks are:

sinteflilla,   maincolor,

sintefdarkgreen, and   sintefyellow.

Using Colours
2 Personalization

- You can use colours with the \textcolor{<color name>}{text} command
- The colours are defined in the sintefcolor package:
  - Primary colours: ■ maincolor and its sidekick ▢ sintefgrey
  - Three shades of green: ▢ sinteflightgreen, ■ sintefgreen, ■ sintefdarkgreen
  - Additional colours: ■ sintefyellow, ■ sintefred, ■ sinteflilla
    - These may be shaded—see the sintefcolor documentation or the SINTEF profile manual
- Do *not* abuse colours: \emph{} is usually enough
- Use \alert{} to bring the focus somewhere

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- You can use colours with the `\textcolor{<color name>}{text}` command
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    - These may be shaded—see the `sintefcolor` documentation or the SINTEF profile manual
- 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!

Adding images works like in normal LaTeX:

Code for Adding Images

```
\usepackage{graphicx}
% ...
\includegraphics[width=\textwidth]
{images/university.jpg}
```

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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}  % adding [onlytextwidth] the left margins will be set
    \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}
```

Special Slides
2 Personalization

- Chapter slides
- Side-picture slides

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Chapter slides

- Similar to `frames`, but with a few more options
- Opened with `\begin{chapter}[<image>]{<color>}{<title>}`
- Image is optional, colour and title are mandatory
- There are seven "official" colours: `maincolor`, `sintefdarkgreen`, `sintefgreen`, `sinteflightgreen`, `sintefred`, `sintefyellow`, `sinteflilla`.
  - Strangely enough, these are *more* than the official colours for the footline.
  - It may still be a nice touch to change the footline of following slides to the same color of a chapter slide. Your choice.
- Otherwise, `chapter` behaves just like `frame`.

Side-Picture Slides

2 Personalization

- Opened with
- Otherwise

Fonts
2 Personalization

- 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

- To insert a final slide with the title and final thanks, use \backmatter.
  — The title also appears in footlines along with the author name, you can change this text with \footlinepayoff
  — You can remove the title from the final slide with \backmatter[notitle]
- The aspect ratio defaults to 16:9, and you should not change it to 4:3 for old projectors as it is inherently impossible to perfectly convert a 16:9 presentation to 4:3 one; spacings *will* break
  — The aspectratio argument to the beamer class is overridden by the SINTEF theme
  — If you *really* know what you are doing, check the package code and look for the geometry class.

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Good Luck!

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

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Thank you for listening!
Any questions?