

报告标题 报告副标题 作者1、作者2 2023年7月







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

PKU style adaptation contributed by Zhuming Shi

In the following you find a brief introduction on how to use  $\[Member ET_EX\]$  and the beamer package to prepare slides, based on the one written by Federico Zenith for SINTEF Presentation



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# Beamer for SINTEF slides

- We assume you can use LEX; if you cannot, you can learn it here
- Beamer is one of the most popular and powerful document classes for presentations in <a href="https://www.englight.com">www.englight.com</a> powerful document classes for presentations
- Beamer has also a detailed user manual
- Here we will present only the most basic features to get you up to speed



### Beamer vs. PowerPoint

Compared to PowerPoint, using LEX 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 T<sub>E</sub>X is the best:

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



Getting Started Selecting the SINTEF Theme

To start working with sintefbeamer, start a  $\[mathbb{E}T_EX$  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



#### Writing a Simple Slide It's really easy!

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



#### Writing a Simple Slide It's really easy!

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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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- 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, sintefgold,
    - 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!



**Blocks** 2 Personalization

#### 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

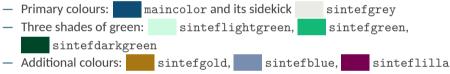
sintefgold.

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#### **Using Colours** 2 Personalization

- You can use colours with the \textcolor{<color name>}{text} command
- The colours are defined in the sintefcolor package:



 $\circ~$  These may be shaded—see the <code>sintefcolor</code> documentation or the <code>SINTEF</code> profile manual

- Do not abuse colours: \emph{} is usually enough
- Use \alert{} to bring the focus somewhere



#### 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: sintefgold, sintefblue, sinteflilla
    - $\circ~$  These may be shaded—see the <code>sintefcolor</code> 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] {assets/logo\_RGB}



% . . .



#### **Splitting in Columns** 2 Personalization

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}



#### **Special Slides** 2 Personalization

- Chapter slides
- Side-picture slides

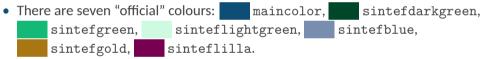






#### **Chapter slides** 2 Personalization

- Similar to frames, but with a few more options
- Opened with \begin{chapter}[<image>]{<color>}{<title>}
- Image is optional, colour and title are mandatory



- 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 \begin{sidepic}{<image>}{<title>}
- Otherwise, sidepic works just like frame





**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 <code>aspectratio</code> argument to the <code>beamer</code> 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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- Enough for an introduction! You should know enough by now
- If you have corrections or suggestions, send them to me!





Thank you for listening! Any questions?