

## Criando um Classificador

Saindo da zona de conforto

CPE XXX - Aprendizado de XXX

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This template is based on [SINTEF Presentation](#) from [Federico Zenith](#) and its derivation [Beamer-LaTeX-Themes](#) from Liu Qilong and Andrea Gasparini

In the following you find a brief introduction on how to use  $\text{\LaTeX}$  and the beamer package to prepare slides, based on the one written by [Federico Zenith](#) for [SINTEF Presentation](#)

# Table of Contents

## 1 Introduction

► Introduction

► Personalization

► Summary

► Referências Bibliográficas

# Beamer for SINTEF slides

## 1 Introduction

- We assume you can use  $\text{\LaTeX}$ ; if you cannot, [you can learn it here](#)
- Beamer is one of the most popular and powerful document classes for presentations in  $\text{\LaTeX}$
- 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

## 1 Introduction

Compared to PowerPoint, using  $\text{\LaTeX}$  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  $\text{\TeX}$  is the best:

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

# Getting Started

## Selecting the SINTEF Theme

To start working with `sintefbeamer`, start a  $\text{\LaTeX}$  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



## Writing a Simple Slide

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- These can be uncovered in sequence

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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}
```

# Table of Contents

## 2 Personalization

► Introduction





► Personalization

► Summary

► Referências Bibliográficas

# 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`,  `sintefdargreen`
  - 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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    - 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

### 2 Personalization

Adding images works like in normal  $\text{\LaTeX}$ :

#### 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
- 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  
`\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 `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.

# Table of Contents

3 Summary

▶ Introduction

▶ Personalization

▶ Summary

▶ Referências Bibliográficas

# Good Luck!

## 3 Summary

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



# Exemplo de Referência Bibliográfica

## 3 Summary

- Estou usando aqui [1]

# Table of Contents

## 4 Referências Bibliográficas

▶ Introduction

▶ Personalization

▶ Summary

▶ Referências Bibliográficas

# Referências Bibliográficas

## 4 Referências Bibliográficas

- [1] N. N. de Moura; J. M. de Seixas; Ricardo Ramos, “Passive sonar signal detection and classification based on independent component analysis,” in *Sonar Systems* (N. Kolev, ed.), InTech, 2011.

# Criando um Classificador

*Obrigado pela Atenção!*

*Alguma Pergunta?*

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