

#### Criando um Classificador

Saindo da zona de conforto

CPE XXX - Aprendizado de XXX

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This template is a 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 <u>KTEX</u> and the beamer package to prepare slides, based on the one written by <u>Federico Zenith</u> for <u>SINTEF Presentation</u>



## **Table of Contents**

1 Introduction

- ► Introduction
- Personalization
- Summary
- Referências Bibliográficas

### **Beamer for SINTEF slides**

1 Introduction

- We assume you can use \text{\$\text{T}\_EX\$; if you cannot, you can learn it here
- Beamer is one of the most popular and powerful document classes for presentations in <a href="MTEX">MTEX</a>
- 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 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 T<sub>F</sub>X is the best:

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

# Getting Started Selecting the SINTEF Theme

To start working with sintefbeamer, start a 上 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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- A typical slide has bulleted lists
- These can be uncovered in sequence

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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**

- Introduction
- **▶** Personalization
- Summary
- Referências Bibliográficas



# **Changing Slide Style**

- 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. sintefvellow. 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**

- 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
    - $\ \, \bullet \ \, \text{These may be shaded} \text{see the } \underline{\text{sintefcolor}} \,\, \text{documentation or the } \underline{\text{SINTEF profile manual}} \,\,$
- Do not abuse colours: \emph{} is usually enough
- Use \alert{} to bring the focus somewhere



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  - 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
- If you highlight too much, you don't highlight at all!



Adding images works like in normal ETEX:

### **Code for Adding Images**

\usepackage{graphicx}
% ...
\includegraphics[width=\textwidth]
{assets/logo\_RGB}





# **Splitting in Columns**

2 Personalization

% There could be more!

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}
```

\end{columns}



# **Special Slides**

- Chapter slides
- Side-picture slides





# **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**

- 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



# Look 2 Personalization

- 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.



- Introduction
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- 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]



- 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.



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Obrigado pela Atenção! Alguma Pergunta? Natanael Moura Junior

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