

Criando um Classificador

Saindo da zona de conforto

CPE XXX - Aprendizado de XXX

Natanael Moura Junior (natmourajr@poli.ufrj.br, natmourajr@lps.ufrj.br)

18 de novembro de 2024





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 ETEX 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



- We assume you can use 上下X; if you cannot, you can learn it here
- Beamer is one of the most popular and powerful document classes for presentations in MTEX
- 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_FX is the best:

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



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



Writing a Simple Slide It's really easy!

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



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

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, 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

- 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



- 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
- 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

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



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.



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



- 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



- 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? Natanael Moura Junior

natmourajr@poli.ufrj.br, natmourajr@lps.ufrj.br