

# JKU Presentation Theme



for  $\text{\LaTeX}$  Beamer  
Space for speaker names

# Prerequisites



# Installation

- Download the latest version of the theme package from <https://github.com/michaelroland/jku-templates-presentation-latex>.
- Extract its contents (unzip) and move the files to a location on your computer where  $\text{\LaTeX}$  will find them. The most portable choice is the folder of your main presentation file.
- Use `main.tex` (the source of this presentation) as a starting point for building your own presentation. It contains detailed guides about the various package options.
- Use `xelatex` as the  $\text{\LaTeX}$  typesetting engine (because it includes enhanced font support). `pdflatex` is also supported but does not deliver the full theme experience.

# Theme Package Requirements

This theme requires that the following packages are installed:

- amsmath
- babel
- beamer
- datetime2
- etoolbox
- fontawesome5
- fontspec (only with XeTeX)
- hyperref
- iftex
- inconsolata
- listings
- lm
- pgf
- psnfss
- translations
- xkeyval
- xcolor

# Getting Started



# Getting Started









- Begin your new presentation with `\documentclass[<class options>]{beamer}`, where `<class options>` is a comma-separated list of options:
  - A typical class option is `aspectratio=169` to set the slide aspect ratio to 16:9. Use `aspectratio=43` to set the slide aspect ratio to 4:3.
  - You should define at least one document language, e.g. `english` or `ngerman` (the “n” is intended). The last language will become the document default language.
  - When you use pdfLaTeX, always add the option `utf8` so that input files are treated as UTF-8 encoded.
- Next, select the JKU beamer theme with `\usetheme[<theme options>]{jku}` (`<theme options>` is, again, a comma-separated list of options).

# Getting Started



Theme Options

## Theme Options: Selecting a Color Scheme

Option	Color Scheme	Primary Color
JKU	JKU (gray) scheme	
BUS	Business School scheme	
LIT	Linz Institute of Technology scheme	
MED	MED faculty scheme	
RE	RE faculty scheme	
SOE	School of Education scheme	
SOWI	SOWI faculty scheme	
TNF	TNF faculty scheme	

If no color scheme option is given, the package defaults to using JKU.



## Theme Options: Selecting a Color Mode

- The theme uses light color mode by default. In this color mode, all frames (including title, logo, and section frames) have a white background.
- Use option “darkmode” to display title, logo, and section frames with a dark background (primary color of the current color scheme).

## Theme Options: Slide Numbers

No slide numbers are shown in slide footers by default. Enable them with:

Option	Description
<code>framenummer</code>	Insert slide number into the footer.
<code>totalframenummer</code>	Insert slide number and total slide number into the footer.
<code>appendixframenummer</code>	Like “totalframenummer”, but also count slides from the appendix into the total. Combine with “totalframenummer” to only show the overall total for appendix slides.

Btw., if you want to reference a slide number, use the option `[label={s}]` in the target frame. Then `\ref{s}` will give a reference to the slide number. For instance, slide 11 is the next slide.

## Theme Options: Section Slides

By default, each sectioning command (`\section`, `\subsection`, `\subsubsection`) inserts a section slide. You can globally disable section slides with:

Option	Description
<code>nosectionpage</code>	Suppress all section slides.
<code>nosubsectionpage</code>	Suppress subsection and subsubsection slides.
<code>nosubsubsectionpage</code>	Suppress subsubsection slides.

- The class option `handout` also suppresses these slides but includes them in slide numbering.
- The starred versions of sectioning commands (e.g. `\section*{...}`) also suppress section slides.

## More Theme Options

Option	Description
<code>compactmono</code>	Use condensed fixed-width font everywhere.
<code>nocompactverb</code>	Do not use condensed fixed-width font for verbatim and listings.
<code>nofooter</code>	Suppress slide footer.
<code>nojkufooter</code>	Suppress JKU/partner logos in slide footer.
<code>noimprint</code>	Suppress imprint on title slides.
<code>nooptpackages</code>	Do not load additional convenience packages (which are only there to provide interoperability to the behavior of previous versions of this theme but are not actually required for the current version).

# Getting Started



Title Slide & Slide Footers

# Title Slide

Use `\maketitle` to display a title slide. This command uses the following information:

Command	Description
<code>\title{...}</code>	The title of your presentation.
<code>\subtitle{...}</code>	The subtitle of your presentation.
<code>\author{...}</code>	The speakers / authors of the presentation.
<code>\institute{...}</code>	The institute / affiliations of the author(s).
<code>\date{...}</code>	The date of the presentation. Defaults to today's date if omitted. Use <code>\date{}</code> to suppress the date.

An optional argument (`\cmd[opt]{...}`) allows to set short versions for use in e.g. footers.

# Advanced Title Slides

- You can change the presentation information and use the `\maketitle` command multiple times in your presentation.
- An optional argument `\maketitle[<options>]` allows to change the color scheme of the title slide. Options may be one of:
  - `light`: Use light color theme.
  - `dark`: Use dark color theme.
  - `gray`: Use JKU gray color theme.
  - `black`: Use black background.

In addition, options may contain a faculty name (see Theme Options: Selecting a Color Scheme) to use the faculty's color theme, e.g. `"\maketitle[TNF,dark]"`.

# Space for new title



Space for new subtitle  
Space for speaker names



# Logos

Command	Description
<code>\institute{code}</code>	The abbreviation / initials of the institute. Use this to load your institute logo instead of the standard JKU logo. E.g. <code>\institute{LIT}</code> to load the LIT logo. You need to add your logo files to the logos folder.
<code>\partnerlogo{filename}</code>	The logo of a partner institution. filename must point to an image file. File extension may be omitted.
<code>\footerpartnerlogo{...}</code>	Change the partner logo in the footer. Use this only if you need to display a different partner logo file (e.g. with a different geometry) in the footer.

# Customizing the Slide Footer

Command	Description
<code>\footer{...}</code>	Use a customized footer text (defaults to the current section title). Use <code>\footer{\insertshorttitle}</code> to display the (short) presentation title instead.
<code>\footerdate{...}</code>	Use a customized date field in the footer (defaults to <code>\footerdate{\insertshortdate}</code> ).

# Getting Started



Basic Elements

# Frames

A slides is called frame in L<sup>A</sup>T<sub>E</sub>X beamer. It consists of a frame title and a body:

```
\begin{frame}  
\frametitle{Space for your frame title.}
```

Space for your frame body.

```
\end{frame}
```

# Bullet Items

- Item 1
  - Subitem 1
    - Subsubitem 1
- Item 2
  - Subitem 2
    - Only three levels of nesting are supported ... and this is good!

```
\begin{itemize}  
  \item Item 1  
    \begin{itemize}  
      \item Subitem 1  
        \begin{itemize}  
          \item Subsubitem 1  
        \end{itemize}  
      \end{itemize}  
    \end{itemize}  
  \item Item 2  
    \begin{itemize}  
      \item Subitem 2  
    \end{itemize}  
  \end{itemize}
```

# Enumerations

- 1. Item 1
  - 1. Subitem 1
    - 1. Subsubitem 1
- 2. Item 2
  - 1. Subitem 2

```
\begin{enumerate}  
  \item Item 1  
    \begin{enumerate}  
      \item Subitem 1  
        \begin{enumerate}  
          \item Subsubitem 1  
        \end{enumerate}  
      \end{enumerate}  
    \end{enumerate}  
  \item Item 2  
    \begin{enumerate}  
      \item Subitem 2  
    \end{enumerate}  
\end{enumerate}
```

# Columns

Use the columns environment to split the frame body into multiple columns:

```
\begin{columns}[onlytextwidth,T]  
...  
\end{columns}
```

The options “onlytextwidth,T” are sensible defaults to make columns span only the normal text width of the slide and to vertically align column contents to the top.

Begin a new column with `\column{<width>}`. You can use e.g. `\column{.45\textwidth}` to let a column span 45 % of the normal text width.

```
\begin{columns}[onlytextwidth,T]  
\column{.45\textwidth}  
Space for column 1.
```

```
\column{.50\textwidth}  
Space for column 2.  
\end{columns}
```

# Conditionally Reveal Items

- A frame can actually span across multiple pages of your presentation to emulate “appear” animations.



# Conditionally Reveal Items

- A frame can actually span across multiple pages of your presentation to emulate “appear” animations.
- Use the `\pause` command to reveal content.

```
\begin{itemize}
\item A frame can actually span across multiple pages of your presentation to ...
\pause
\item Use the \textverb{\string\pause} command to reveal content.
\end{itemize}
```

# Table of Contents

Use the `\tableofcontents` command to list all sections and subsections in the presentation (if you really want to do this [2]):

- Prerequisites
- Getting Started
  - Theme Options
  - Title Slide & Slide Footers
  - Basic Elements
- Colors
- Special Frames
- General  $\text{\LaTeX}$ /Beamer Features
- Ending the Presentation

## Table of Contents: Keep it Compact

Use the `hideallsubsections` option to keep the table of contents more compact by including only first-level sections:

- Prerequisites
- Getting Started
- Colors
- Special Frames
- General  $\text{\LaTeX}$ /Beamer Features
- Ending the Presentation

```
\begin{frame}  
\frametitle{Table of Contents}  
\tableofcontents[hideallsubsections]  
\end{frame}
```

# Blocks

## Standard Block

Content can be highlighted in so-called blocks. This is a standard block.

```
\begin{block}{Space for title.}
```

Space for content.

```
\end{block}
```

# Colorful Blocks

## Alert Block

This is an alertblock.

```
\begin{alertblock}{Space for title.}
Space for content.
\end{alertblock}
```

## Example Block

This is an exampleblock.

```
\begin{exampleblock}{Space for title.}
Space for content.
\end{exampleblock}
```

# Lists with Reduced Spacing

In some rare situations, it may be useful to create lists with reduced vertical spacing. Use the `tightlist` environment for this:

- Item 1
- Item 2
- Item 3

```
\begin{tightlist}
  \begin{itemize}
    \item Item 1
    \item Item 2
    \item Item 3
  \end{itemize}
\end{tightlist}
```

- Item 1
- Item 2
- Item 3

```
\begin{itemize}
\item Item 1
\item Item 2
\item Item 3
\end{itemize}
```

# Colors



# Color in Presentation

- Consider the “darkmode” theme option in combination with one of the faculty-specific color schemes (see slides 8 & 9) to add decent coloring to your presentation.
- If you need colors in your presentation, use one of the pre-defined JKU colors.
- Use `\textcolor{<color>}{<text>}` to display colored text.
- Mac-users may want to use the theme option “mac” (for screen display versions of your presentation only!)



# JKU Colors

jkuBlue

jkuYellow

jkuLightGreen

jkuPurple

jkuCyan

jkuGrey

jkuGreen

jkuRed

black

white

# Special Frames



## Plain Frames

The frame environment also takes optional arguments `\begin{frame}[<options>]`. You already read about the “`label=`” option on slide 10. Another option is `plain` to suppress the footer for a frame.

```
\begin{frame}[plain]  
\frametitle{Space for your frame title.}
```

Space for your frame body.

```
\end{frame}
```

Omit the frame title to get an empty frame.

```
\begin{frame}[plain]
```

Space for your frame body.

```
\end{frame}
```

# Colorful Background

You can change the background color of a frame by changing the color “background canvas”. The standard foreground color is “normal text”.

```
\begingroup
\setbeamercolor{background canvas}{bg=jkuYellow}
\setbeamercolor{normal text}{fg=white}
\usebeamercolor[fg]{normal text}
\begin{frame}[plain]
\frametitle{Space for your frame title.}
```

Space for your frame body.

```
\end{frame}
\endgroup
```

# Background Image

You can add a full screen background image to a slide. The aspect ratio of the picture should match the presentation. To fill the whole screen you might use `height=\paperheight`, but the result might be distorted ...

```
\begingroup
\usebackgroundtemplate{\includegraphics[width=\paperwidth]{images/jku_keplerhall_
  winter.jpg}}
\setbeamercolor{normal text}{fg=white}
\usebeamercolor{fg}{normal text}
\begin{frame}[plain]
\frametitle{Space for your frame title.}
```

Space for your frame body.

```
\end{frame}
\endgroup
```

## Title Image Slide

Use `\imageframe[<mode options>]{<title>}{<subtitle>}{<graphic>}` to display a title image frame. That is a full screen image with a title sidebar.

```
\imageframe{%  
    This is an image frame.  
}{%  
    With a subtitle.  
}{%  
    \includegraphics[height=\paperheight]{images/jku_learningcenter.jpg}  
}
```

The optional argument “<mode options>” may be any of the color mode options that can be used for the `\maketitle` command (see slide 15).

**This is a title  
image frame.**

**With a subtitle.**





**This is a title  
image frame.**

**For the MED  
faculty.**



# Logo Slides

Use `\jku logo[<mode options>]` to display a logo slide. That is a slide with only the JKU logo centered on it. This slide is well suited as a final slide in your presentation.

Again, the optional argument “<mode options>” may be any of the color mode options that can be used for the `\maketitle` command (see slide 15), e.g.

- `\jku logo`
- `\jku logo[light]`
- `\jku logo[dark]`
- `\jku logo[SOWI,dark]`
- `\jku logo[gray]`
- `\jku logo[black]`



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## Switching Color Mode and Scheme

Just like switching the color mode and scheme for a specific special slide, you can also switch the color mode for the remaining part of the presentation. This may be useful if you want to create a presentation with parts focusing on more than one faculty.

Use `\setcolormode[<mode options>]` to change the color mode.

# Contact Information Slide I

Use `\contactframe[<mode options>]{<name>}{<affiliation>}{<contact info>}{<ack>}` to display a contact information frame.

```
\contactframe{Johanna Kepler}{Institute of Networks and Security}{%
  \contactphone{+43 732 2468-XXXX}
  \contactmail{firstname.lastname@jku.at}
  \contactweb[https://www.jku.at/ins]{jku.at/ins}
}{%
  This work is funded by XYZ.
}
```

The optional argument “<mode options>” may be any of the color mode options that can be used for the `\maketitle` command (see slide 15).

## Contact Information Slide II

The contact info field may contain a combination of the following commands:

- `\contactaddress{address}`: adds an address/place
- `\contactphone{number}`: adds a phone number
- `\contactfax{number}`: adds a fax number
- `\contactmail{e-mail address}`: adds an e-mail address
- `\contactweb[real url]{display url}`: adds a URL
- `\contactother[icon]{contact info}`: adds an arbitrary contact info entry, use `\fa...` (from fontawesome5 package) as icons
- `\contactnewline`: adds an empty line

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# General L<sup>A</sup>T<sub>E</sub>X/Beamer Features



# Environments

Standard  $\text{\LaTeX}$ -beamer defines several environments like *theorem, corollary, fact, lemma, problem, solution, definition, definitions, example, and examples*.

## Definition (Monoid)

We call  $(M, \circ)$  a *monoid* if and only if

$$\forall a, b, c \in M : \quad (a \circ b) \circ c = a \circ (b \circ c) \quad \text{(associativity)}$$

$$\exists e \in M \forall a \in M : \quad a \circ e = e \circ a = a \quad \text{(neutral element)}$$

# Environments

*Theorem (Fundamental Theorem of ...)*

*Let  $(M, +)$  be a monoid. Then ...*

Proof.

Let  $M$  be an arbitrary set. We then show ...



Example

Put an example here.



# Self-defined Environments

You also can define your own environments:

```
\newtheorem{idea}[theorem]{Idea}
```

```
\begin{idea}[My own idea]
```

Here is a self-defined environment

```
\end{idea}
```

```
\theoremstyle{definition}
```

```
\newtheorem{defi}[theorem]{My Definition}
```

```
\begin{defi}
```

Test

```
\end{defi}
```

# Self-defined Environments

*Idea (My own idea)*

*Here is a self-defined environment*

My Definition

Test

My Example

Test

# Custom Blocks

## Blue block

Using the theme colors to generate colored blocks.

```
\begingroup
\setbeamercolor{block title}{fg=white,bg=jkuBlue}
\begin{block}{Blue block}
Use the theme colors to generate colorful blocks.
\end{block}
\endgroup
```

# Language

- Use the `otherlanguage` environment to temporarily change the document language in your presentation.
- Changing the document language to `german` (or better `ngerman`) also changes the language in logos and the imprint on title pages and in footers.

```
\begin{otherlanguage}{ngerman}
```

```
\end{otherlanguage}
```

# Producing Handouts

- You can generate a “handout” version of your presentation with the class option `handout`.
- Section slides and logo slides will be suppressed.
- Overlays will be flattened into single pages.
- Slide numbering will still match the numbering in the non-handout version.

# Ending the Presentation



# Thank You Thank You Thank You Thank You Thank You Thank You Thank You Thank You Thank You

You see, btw., the slide title can run over several lines ...

Please ...

... refrain from putting an extra slide at the end saying “**Thank you for your attention**”. This is really annoying [1, 2]. You can say “Thank you” anyway, it need not be written. Instead, you can put a nice \jku logo as the final slide!

# References

- [1] Karol K. 2015. 2 Slides That are Ruining Your Damn PowerPoint Presentation. (October 2015). <https://newinternetorder.com/2-slides-that-are-ruining-your-damn-powerpoint-presentation/>.
- [2] David M. Schultz. 2011. Do you end with a 'thank you' or 'questions?' slide? (February 2011). <https://eloquentscience.com/2011/02/do-you-end-with-a-thank-you-or-questions-slide/>.



# JKU Theme Information

This a beamer theme for Johannes Kepler University Linz, Austria.

Want to report a bug? Want to request improvements?

You are always welcome to suggest improvements via the official repository at <https://github.com/michaelroland/jku-templates-presentation-latex>.



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