LATEX BEAMER TEMPLATE
Howto for `beamer`-Slides v17.12

December 7, 2017 | Template Version 17.12 | Tutorial Version 17.12 | My Institute

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Part I: Introduction

LaTeX `sty.` **Files – Version 17.11**

- first version with new corporate design
- tutorial is not complete yet, will be updated shortly

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Part II: Installation

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beamertheme-juelich.zip

The .zip archive consists of 1 directory with 3 subdirectories.

- `beamertheme-juelich.zip`
- `beamertheme-juelich/`   main directory of the .zip file
    - `sty/`   directory containing the .sty files
        - `fzj.pdf`   Juelich logo for pdfLaTeX
        - `beamerthemeJuelich.sty`   main style file
        - `beamerouterthemeJuelich.sty`   aux. style file
        - `beamerinnerthemeJuelich.sty`   aux. style file
        - `beamerfontthemeJuelich.sty`   aux. style file
        - `beamercolorthemeJuelich.sty`   aux. style file
    - `minimal/`   directory containing a minimal examples
    - `tutorial/`   directory containing the sources to this tutorial

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Linux Installation

Choose `texmf` Tree

First, choose your favorite install directory.
Then, create a new subdirectory `beamertheme-juelich`

Change to your `texmf` tree and create subdirectory

- `cd /usr/share/texmf/tex/latex/`   or
- `cd /usr/local/share/texmf/tex/latex/`   or
- `cd $HOME/texmf/tex/latex/`
- `mkdir beamertheme-juelich`

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Linux: Install the `.sty` Files

Create Directory + Copy files + Update TeX

- Unzip `beamertheme-juelich.zip` file
- Copy all files from subdirectory `beamertheme-juelich/sty` into the new subdirectory `beamertheme-juelich`

- Try to compile the minimal example in the `minimal` subdirectory slide)
- Try to compile this tutorial in the `tutorial` subdirectory

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Test your Installation

Try to compile this minimal talk

```
\documentclass{beamer}
\usetheme{Juelich}

\title{My first talk with \LaTeX{}}
\subtitle{The template works!}
\author{Your Name}
\institute{Your Institute}
\date{\today}
\titlegraphic{\includegraphics%
[height=0.45\paperheight]{placeholder}
}
\begin{document}
\maketitle
\end{document}
```


MY FIRST TALK WITH LᴬTᴇX
The template works!

December 7, 2017 | Your Name | Your Institute

Member of the Helmholtz Association

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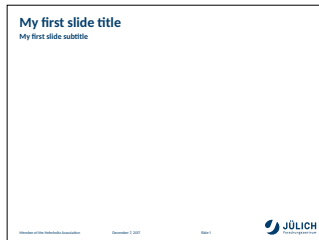Forschungszentrum

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Test your Installation II

Try to compile this minimal talk with handouts

```
\documentclass[t,handout]{beamer}
\usetheme{Juelich}

\title{My first talk with \LaTeX{}}
\subtitle{The template works!}
\author{Your Name}
\institute{Your Institute}
\date{\today}
\titlegraphic{\includegraphics%
[height=0.45\paperheight]{placeholder}
}
\begin{document}
\maketitle

\begin{frame}
  \frametitle{My first slide title}
  \framesubtitle{My first slide subtitle}
\ end{frame}
\end{document}
```

Part III: Examples

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LaTeX-Beamer Features

The following slides show how `Latex-Beamer` constructs work within the template.

- Framebreaks
- Lists, numbered lists
- Plain slides, background images
- Theorems, proofs
- Definitions, examples
- Blocks, alert blocks
- Highlight options
- Formulae
- Verbatim environments

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Lots of lists

Another Subtitle

- using the `pause` command:
  - First item.

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Lots of lists

Another Subtitle

- using the `pause` command:
    - First item.
    - Second item.
- using overlay specifications:

- using the general `uncover` command:

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Lots of lists

Another Subtitle

- using the `pause` command:
    - First item.
    - Second item.
- using overlay specifications:
    1. First numbered item.

- using the general `uncover` command:

Lots of lists

Another Subtitle

- using the `pause` command:
  - First item.
  - Second item.
- using overlay specifications:
  1. First numbered item.
  2. Second numbered item.
     - 3rd level item!
- using the general `uncover` command:

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Lots of lists

Another Subtitle

- using the `pause` command:
  - First item.
  - Second item.
- using overlay specifications:
  1. First numbered item.
  2. Second numbered item.
     - 3rd level item!
- using the general `uncover` command:
  - First item.

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Lots of lists

Another Subtitle

- using the `pause` command:
  - First item.
  - Second item.
- using overlay specifications:
  1. First numbered item.
  2. Second numbered item.
     - 3rd level item!
- using the general `uncover` command:
  - First item.
  - Second item.

Plain Frames

- The next slide shows a plain frame, even without the "Jülich" color bars at the left-hand side.
- To use plain frames add the [plain] parameter to your \begin{frame} statement.

How to use plain frames

```
\begin{frame}[plain]
\frametitle{Plain Frame}
  \begin{center}
    Here is my tiny text on a plain frame.
  \end{center}
\ end{frame}
```

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Plain Frame

Enough space for your big ideas. (or holiday pictures)

Block Constructs

theorem, proof

Theorem

There is no largest prime number.

Proof.

1 Suppose p were the largest prime number.

4 Thus $q + 1$ is also prime and greater than p. □

Block Constructs

`theorem, proof`

Theorem

There is no largest prime number.

Proof.

1. Suppose p were the largest prime number.
2. Let q be the product of the first p numbers.

4. Thus $q + 1$ is also prime and greater than p. □

Block Constructs

`theorem, proof`

Theorem

There is no largest prime number.

Proof.

1. Suppose p were the largest prime number.
2. Let q be the product of the first p numbers.
3. Then $q + 1$ is not divisible by any of them.
4. Thus $q + 1$ is also prime and greater than p. $\square$

Block Constructs

definition, example

Definition

A prime number is a number that has exactly two divisors.

Example

- 2 is prime (two divisors: 1 and 2).
- 3 is prime (two divisors: 1 and 3).
- 4 is not prime (three divisors: 1, 2, and 4).

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Block Constructs

`block, alertblock`

Simple Block

Just some text.

Alert Block

This block seems to be pretty important.

Highlight important information

Use "Jülich" colors to attract attention

Use \emph{}

```
This text is \emph{important}.
```
This text is important.

Use \alert{}

```
This text is \alert{really} important!
```
This text is really important!

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Math Environment

Use your LaTeX formulae inside your slides without hassle

$$\iiint_V \operatorname{div} \vec{F} \, dV = \iint_S \vec{F} \cdot d\vec{S}$$

$$\prod_{k=1}^{n} k = n! \, , \quad \sum_{k=1}^{n} k = \frac{n(n+1)}{2} \, , \quad \int_0^{2\pi} \sin t \, dt = 0$$

$$p(x) = \sum_{i=0}^{n} f_i q_i(x) \quad \text{with} \quad q_i(x) = \prod_{\substack{k=0 \\ k \neq i}}^{n} \frac{x - x_k}{x_i - x_k} \, .$$

$$\iint_S (U \operatorname{grad} W) \cdot d\vec{S} = \iiint_V (\operatorname{grad} U \cdot \operatorname{grad} W + U \Delta W) \, dV$$

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Verbatim Environment

Code Snippets

■ Slides containing \verb statements must be defined `fragile`
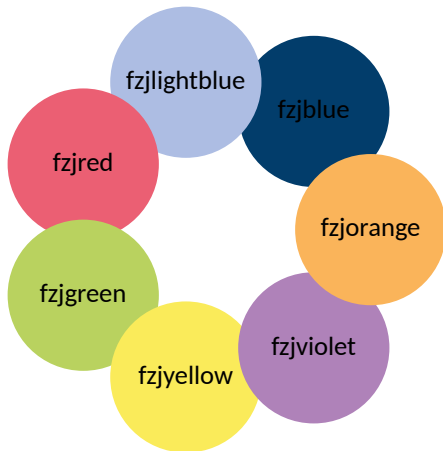
```
\begin{frame}[fragile]
    \frametitle{Hello World in Intercal}
    \begin{verbatim}
    DO ,1 <- #13
    PLEASE DO ,1 SUB #1 <- #234
    DO ,1 SUB #2 <- #112
    DO ,1 SUB #3 <- #112
    DO ,1 SUB #4 <- #0
    DO ,1 SUB #5 <- #64
    DO ,1 SUB #6 <- #194
    DO ,1 SUB #7 <- #48
    PLEASE DO ,1 SUB #8 <- #22
    DO ,1 SUB #9 <- #248
    DO ,1 SUB #10 <- #168
    DO ,1 SUB #11 <- #24
    DO ,1 SUB #12 <- #16
    DO ,1 SUB #13 <- #214
    PLEASE READ OUT ,1
    PLEASE GIVE UP
    \Xend{verbatim}                    % remove X after copy & paste :-)
\ end{frame}
```

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Part IV: Jülich Colors

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Corporate Colors

You can use predefined colornames to spice up your slides

Part V: Localization

Localization

How to change the date display to another language

The date will be adjusted automatically. You just have to use the `babel` package with the desired language.

Date style – Mixed

load package with DE and EN (default):	`\usepackage[ngerman,english]{babel}`
choose German:	`\selectlanguage{ngerman}`
choose English:	`\selectlanguage{english}`

Date style – German

01. Januar 2018	`\selectlanguage{ngerman}`

Date style – English

January 01, 2018	`\selectlanguage{english}`

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Localization/Language

Change Helmholtz Banner Text

Using the `babel` package with the language option automatically sets the correct labels for the slide counter and Helmholtz banner.

Helmholtz Banner and Date in German

- Take a look at the date and Helmholtz banner in the lower left corner and the slide name adn frame number in the middle
- This slide should show the german version
- Enable options via `\documentclass[english,ngerman]{beamer}`
- Enabled locally via `\selectlanguage{ngerman}` before `\begin{frame}`

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Part VI: Tweaks

Slide Number Display

How to change the slide number style

Full Display: Current Slide | Overall Number of Slides

`\setbeamertemplate{frame number}[full]`   Slide 42 | 524

No Display: empty

`\setbeamertemplate{frame number}[empty]`

Default Display: Current Slide

`\setbeamertemplate{frame number}[default]`   Slide 42

Translation

If you choose german as language the name Slide will be translated to Folie automatically (See this slide)

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Project Partners

How to set up partner logos

- Show up to 3 partner logos, on this slide Jara, RWTH, Bonn
- Design your logos with sufficiently large white borders
- pdfLaTeX pictures file types: `.pdf` `.png` `.jpg`

Show logos

```
\setbeamertemplate{footer element1}[logo]{jara}
\setbeamertemplate{footer element2}[logo]{uni_bonn}
\setbeamertemplate{footer element3}[logo]{rwth}
```

Reset back to default settings

```
\setbeamertemplate{footer element1}[default]
\setbeamertemplate{footer element1}[default]
\setbeamertemplate{footer element1}[default]
```

Part VII: Handouts

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Create Handouts

Switch and Setup Render Mode

```
\documentclass[handout]{beamer}
\mode<handout>{
\pgfpagesuselayout{4 on 1}[a4paper,landscape,border shrink=5mm]}
```

Define Number of Pages per Sheet

```
\pgfpagesuselayout{2 on 1}[a4paper,border shrink=5mm]
\pgfpagesuselayout{4 on 1}[a4paper,landscape,border shrink=5mm, landscape]
\pgfpagesuselayout{8 on 1}[a4paper,border shrink=5mm]
\pgfpagesuselayout{16 on 1}[a4paper,landscape,border shrink=5mm, landscape]
```

Further Reading – See `Latex-Beamer` manual for details

```
www.ctan.org/tex-archive/macros/latex/contrib/beamer/doc/beameruserguide.pdf
```

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Aspect Ratio

The documentclass allows several ratios for the slide. Just change the variable `aspectratio`.

- `aspectratio=43` gives classical 4:3 ratio
- `aspectratio=169` gives classical 16:9 ratio
- `aspectratio=1610` gives classical 16:10 ratio

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Style

The design allows two styles.

Style with Image

- for the title page: `\fzjset{title page=image}`
- for the part page: `\fzjset{section page=image}`
- for the section page: `\fzjset{section page=image}`

Style with Text

- for the title page: `\fzjset{title page=text}`
- for the part page: `\fzjset{section page=text}`
- for the section page: `\fzjset{section page=text}`

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Allcaps or Regular Title Fonts

It is possible to switch the style of the font via the options

- `\fzjset{title=allcaps}` to set the title in allcaps
- `\fzjset{title=regular}` to set the title regular
- `\fzjset{subtitle=allcaps}` to set the title in allcaps for short text
- `\fzjset{subtitle=regular}` to set the title regular and in a smaller font for long text
- `\fzjset{part=allcaps}` to set the part in allcaps for short text
- `\fzjset{part=regular}` to set the part regular and in a smaller font for long text

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LaTeX Beamer Template

Now in text only mode and regular text

December 7, 2017 | Your Name | My Institute

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LaTeX Beamer Template
Now back in image mode

December 7, 2017 | Your Name | My Institute

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Part X: This is a part page

This is a part page

This is a section page

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Fixed Bugs

Nothing reported yet.

More Pitfalls/bugs?

Please report.

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Part XI: Extensions

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Poster with LaTeX-Beamer

To create scientific posters with LaTeX the `beamerposter` extension can be used. Template will be provided soon.

More Information at

`http://www-i6.informatik.rwth-aachen.de/~dreuw/latexbeamerposter.php`

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Contact

Thank you for using this template!

Enhance Missing Functionality Yourself!

Please send your enhancements along with a short description to `i.kabadshow@fz-juelich.de`

Report Problems

Please report problems with the template or uncommon behavior to `i.kabadshow@fz-juelich.de`

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