

# The MWG $\LaTeX$ beamer theme

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*Dedicated to my teachers and fellow students in year 11*

*They showed me the beauty of  $\LaTeX$   
as well as the several flaws of MS Office documents*

## Abstract

The MWG beamer theme is considered as a beamertheme suitable for every possible use. It uses the red color and the logo of the Markgräfin Wilhelmine Gymnasium, Bayreuth.

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## Important note

Since the MWG logo included in the footline by default consists of a TikZ source up to 5 850 lines long, presentations may compile very long time. This can be very nasty, especially during the process of creating the presentation.

*To reduce the amount of time required for compiling, the theme uses a simplified version of the logo.* Simplified means that details not visible to your audience got removed, resulting in a reduction of compilation time to approx.  $\frac{1}{3}$ . However, the detailed version is still available when using the `hqlogo` option.

You can remove the logo *temporary* by passing the `draft` option or *permanently* by passing other options. See section 2 for further details.

## Dependencies and other requirements

The MWG theme requires  $\text{\LaTeX}$  2 $\epsilon$  and – in addition to the ones requested by the beamer class – following packages:

<code>appendixnumberbeamer</code>	A simple solution for appendix frames not being calculated into the total number of frames
<code>etoolbox</code>	Provides access on $\epsilon$ - $\text{\TeX}$ primitives
<code>tikz</code>	The frontend to pgf used for drawing background and logo

## Call for cooperation

Please report bugs and other problems as well as suggestions for improvements to my email address ([sfr682k@t-online.de](mailto:sfr682k@t-online.de)).

## Style sample

The style sample shown in figure 1 was made using the sample presentation “Writing presentations in  $\text{\LaTeX}$  beamer?” created by Sebastian Friedl<sup>1</sup>.

## License

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The latest version of this license is available at <http://www.latex-project.org/lppl.txt> and version 1.3c or later is part of all distributions of  $\text{\LaTeX}$  version 2008-05-04 or later.

This work has the LPPL maintenace status ‘maintained’. The current maintainer of this work is Sebastian Friedl.

This work consists of the following files:

- `beamerthemeMWG.sty` and
- `beamerthemeMWG_documentation.tex`

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<sup>1</sup>Source available on GitHub (*WTFPL*)

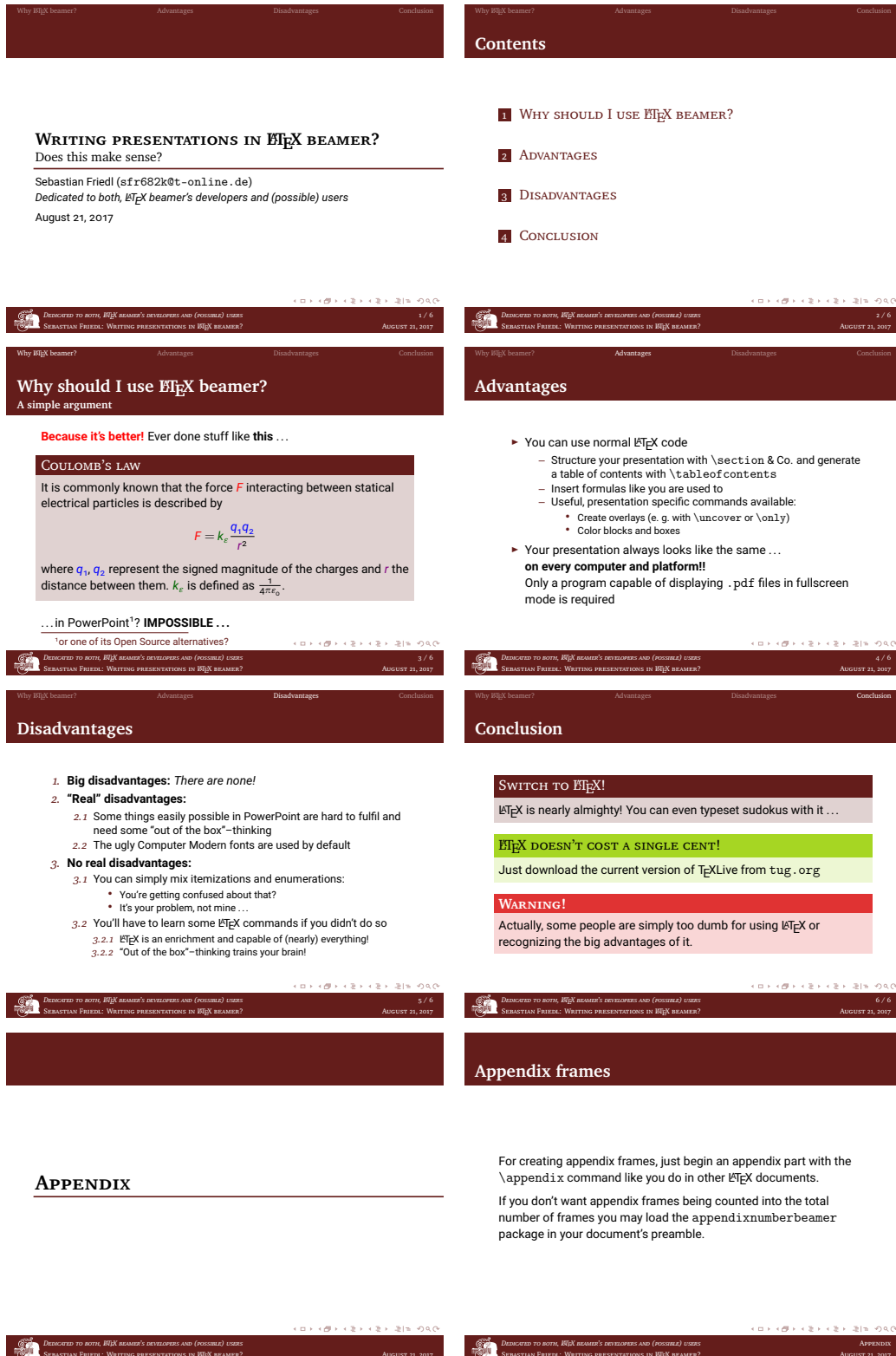


Figure 1: Style sample of the MWG theme

## 1 Using the theme

For using the theme you have to copy the file `beamerthemeMWG.sty` into the folder containing the master file of your presentation. Advanced users may also install the style file on their local system.

After that, simply use the command `\usetheme{MWG}` to set the theme used in your presentation to the MWG theme.

## 2 Theme options

Passing some options to the theme influences the way it behaves.

Syntax: `\usetheme[<option1>, <option2>, ...]{MWG}`

### Available options:

<code>nologo</code>	No logos will be shown anywhere on the frame
<code>draft</code>	Prevents placement of the logo in the footline but keeps reserving the space. In contrast to the <code>draft</code> option of the <code>beamer</code> class, the other contents of the frame still stay the same and remain displayed.
<code>externallogo</code>	Removes the logo from the footline and the logo specified with the <code>\logo</code> command will be shown on the right-hand side directly above the footline
<code>hqlogo</code>	Uses the detailed version of the logo instead of the simplified one
<code>nosmallcaps</code>	Apply this option if the used fonts don't provide a small caps shape
<code>notoc</code>	This option prevents the navigation being placed in the headline, resulting in an empty headline. Use the <code>noheadline</code> option for removing the complete headline.
<code>noheadline</code>	Removes the headline
<code>smallfootline</code>	Uses a footline half the size of the default footline

## 3 Features

There are some features allowing configuration and personalization of the MWG theme as well as easier writing the presentation's source.

### 3.1 Title graphic

The theme is capable of showing a graphic on the title- and other structure frames. The title graphic used by the theme is declared with `\titlegraphic{<graphic>}`, where `<graphic>` represents a command like `\includegraphics` used for loading the title graphic itself.

*Note:*

The title and structure frames will have a slightly different layout when a title graphic is defined

### 3.2 Structure frames

When using the MWG theme there will be a separation frame generated when the `\appendix` command is set.

In addition to that, other structure frames may be inserted – this can happen either manually or automatically.

#### Manual insertion of structure frames

`\partframe` – a frame showing the current part

`\sectionframe` – a frame showing the current section

`\subsectionframe` – a frame showing the current section and subsection

The commands can be used inside as well as outside a frame.

If a command is used *inside* a frame this frame will be used; please note that the elements of the structure frame may cover the other content placed in this frame.

If a command is used *outside* a frame the theme will generate one; this frame won't be calculated into the total number of frames and there won't be a frame number shown in the footnote.

#### Automatically insertion of structure frames

Commands activating automatically insertion:

part frames	<code>\activatepartframes</code>
section frames	<code>\activatesectionframes</code>
subsection frames	<code>\activatesubsectionframes</code>

Commands deactivating automatically insertion:

part frames	<code>\deactivatepartframes</code>
section frames	<code>\deactivatesectionframes</code>
subsection frames	<code>\deactivatesubsectionframes</code>

It is recommended to deactivate the automatically insertion of part frames before using the `\appendix` command; otherwise there will be two separation frames generated.

## 4 Appropriate fonts

Many elements of the MWG theme use the `SMALL CAPS` font shape.

This can lead to some unwanted results (*like sans-serif text mixed up with serif small caps*) when the default `TEX` document font, Computer Modern is used.

On the other hand, the theme does not require any font packages, since there may be some problems with engines like `XYTEX` or `LuaTEX`.

Therefore, you should load some font packages on your own.

In following, recommended combinations are listed.

For this documentation, the Charter & Roboto combination is used.

## 4.1 Font combinations using $\TeX$ packages

**Charter & Roboto** *supports:  $\TeX$ , pdf $\TeX$ ,  $\sqrt{math}$*

```
\usepackage[charter]{mathdesign}
\usepackage[osf]{XCharter}
\usepackage[osf,scale=.92]{roboto}
\renewcommand{\familydefault}{\sfdefault}
```

**Charter & Droid Sans** *supports:  $\TeX$ , pdf $\TeX$ , X $\TeX$ , Lua $\TeX$ ,  $\sqrt{math}$*

*doesn't support: SANS-SERIF SMALLCAPS*

```
\usepackage[charter]{mathdesign}
\usepackage[scale=.85,defaultsans]{droidsans}
```

**Utopia & Source Sans Pro** *supports:  $\TeX$ , pdf $\TeX$ ,  $\sqrt{math}$*

*doesn't support: SANS-SERIF SMALLCAPS*

```
\usepackage[utopia]{mathdesign}
\usepackage[scale=.95]{sourcesanspro}
```

**Times & Helvetica** *supports:  $\TeX$ , pdf $\TeX$ , X $\TeX$ , Lua $\TeX$ ,  $\sqrt{math}$*

```
\usepackage[slantedGreek]{mathptmx}
\usepackage[scaled=.92]{helvet}
```

## 4.2 Font combinations for X $\TeX$ and Lua $\TeX$ using fontspec

Please check whether these fonts are installed on your local system before using this font combinations. The fontspec and unicode-math packages both require the document being compiled with X $\TeX$  or Lua $\TeX$ .

**Cambria, Calibri & Consolas** *supports: X $\TeX$ , Lua $\TeX$ ,  $\sqrt{math}$*

```
\usepackage{fontspec}
\usepackage{unicode-math}
\setmainfont{Cambria}
\setmathfont{Cambria Math}
\setsansfont[Scale=MatchLowercase]{Calibri}
\setmonofont[Scale=MatchLowercase]{Consolas}
```

Load the fonts with the Numbers=OldStyle option to obtain old style figures

**Constantia, Corbel & Consolas** *supports: X $\TeX$ , Lua $\TeX$*

```
\usepackage{fontspec}
\setmainfont{Constantia}
\setsansfont[Scale=MatchLowercase]{Corbel}
\setmonofont[Numbers=OldStyle,Scale=MatchLowercase]{Consolas}
```

## List of Figures