DIW BERLIN

DIW-LaTeX-Template-User-Guide

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Contents

Chapter 1

Introduction

This paper will guide you through the process of installing and using the DIW-GC-BEAMER-Template with LaTeX. If you use LaTeX for the first time it is recommended to read some introductory texts or watch some video tutorials how to use it. This paper is not an introduction to LaTeX in general. But you can install and use the BEAMER-*class* and the DIW-GC-BEAMER-Template without being an expert in LaTeX. Both are quite easy to use.
As can be seen in the table of contents there are more Templates to come (poster, dissertation). This is work in progress and approximately will be finished in spring 2013. For absolute LaTeX beginners there will be tutorials at the DIW around that time, too.
Nevertheless it is strongly recommended to have a look on the second chapter of the BEAMER-User Guide!
`www.tex.ac.uk/CTAN/macros/latex/contrib/beamer/doc/beameruserguide.pdf`

Chapter 2

The DIW-GC-BEAMER-Template

Besides creating documents of all kinds (from reports to articles to even whole books) LaTeX also has the ability to generate high-quality presentations. This is done with macros collected in the so-called BEAMER-*class*. Usually this class is installed with your LaTeX-software package. An important feature of this class is that it lets you create highly customized templates for your presentation-slides. One of these templates is the DIW-GC-BEAMER-Template. You can choose different head- and footlines and it has a customized title- and endpage.

2.1 Installing the DIW-GC-BEAMER-Template

This chapter will show you how to install the DIW-GC-BEAMER-Template on different operating systems. It is assumed that you have a running LaTeX-installation on your machine. Make sure you have installed the BEAMER-*class*.

2.1.1 Windows

When using Windows on your machine it is recommended to use the MiKTeX-software-package. This free software-package has everything you need to run LaTeX on your Windows-PC. Follow the instructions on the MiKTeX-webpage `http://www.miktex.org/2.9/setup` if it is not already installed on your PC.

1. Unzip the "DIW-GC-LaTeX-Beamer-Template_Version1.0.zip" that was sent to you at any place you want. Please do not change the internal structure of the unzipped folder.
2. Then go to your Windows "start menu" $\longrightarrow$ "MiKTeX 2.x" $\longrightarrow$ "Maintenance" $\longrightarrow$ "Settings". Choose the tab "Roots", click the "Add"-button and find the place where you unzipped the Template folder. Then click "Übernehmen".
3. To be on the safe side please update the filename database, too: "start menu" $\longrightarrow$ "MiKTeX 2.x" $\longrightarrow$ "Maintenance" $\longrightarrow$ "Settings" $\longrightarrow$ "General". Press the button "Refresh FNDB".

2.1.2 Mac OS X

1. Unzip the "DIW-GC-LaTeX-Beamer-Template_Version1.0.zip" that was sent to you at any place you want.
2. Open a Finder window and in the menu bar choose "Go" $\longrightarrow$ "Go to Folder".
3. In the textfield enter: $\sim$/Library
4. Once there, create a folder and name it "texmf".
5. Open the newly created folder and drag the "tex" folder from the unzipped folder into it.[1]

2.1.3 Unix/Linux

1. Unzip the "DIW-GC-LaTeX-Beamer-Template_Version1.0.zip" that was sent to you at any place you want.
2. Put the whole unzipped folder to $\sim$/texmf/tex/latex/

2.2 Using the DIW-GC-BEAMER–Template

Once you have successfully installed the Template you are now ready to build your presentation-slides. For your convenience there is a file called "TestTemplate.tex" in the folder you unzipped that you can use as a starting point. All following examples are explained by means of this file. The file also contains a lot of comments (the text after the %) that are not included in the compilation process LaTeX does in order to generate the slides but that should help you understand the code. Before you get started on experimenting with the DIW-GC-BEAMER–Template please cut and paste the "TestTemplate.tex"-file to any other location on your system except the same folder it was delivered. Then open it in a LaTeX-Editor of your choice and compile it with "PDFLaTeX". After compiling you should get an output file named "TestTemplate.pdf".
In the following the choices you have to change the appearance of your presentation-slides are explained on the basis of the LaTeX-Code.

2.2.1 The Documentclass

The first line of code in a .tex-file has to be the so-called "documentclass". Here you specify what kind of document you want to create. Since LaTeX is a "document preparation system" this is crucial. LaTeX knows a lot of documentclasses and has special features to offer for each of it. In this chapter we want to create presentation-slides with the BEAMER-*class* so the first line of our .tex-file will look like this:

```
\documentclass{beamer}
```

[1] Thanks to Tobias Schmidt for this easy way to install the Template on Mac OS X.

2.2.2 Themes and Templates

Before LaTeX is able to compile a Beamer .tex-file you have to specify so-called "themes". These themes contain all information LaTeX needs in order to build your presentation-slides as a .pdf-file. There are five kinds of themes: presentation themes, innerthemes, outerthemes, colorthemes and fontthemes. Basically, a Template is a collection of themes[2]. To tell LaTeX you want to use the DIW-GC-Beamer-Template you have to type this code in your preamble:

```
\usetheme{diwgc}
```

After the compilation process LaTeX will output a .pdf file in this style:

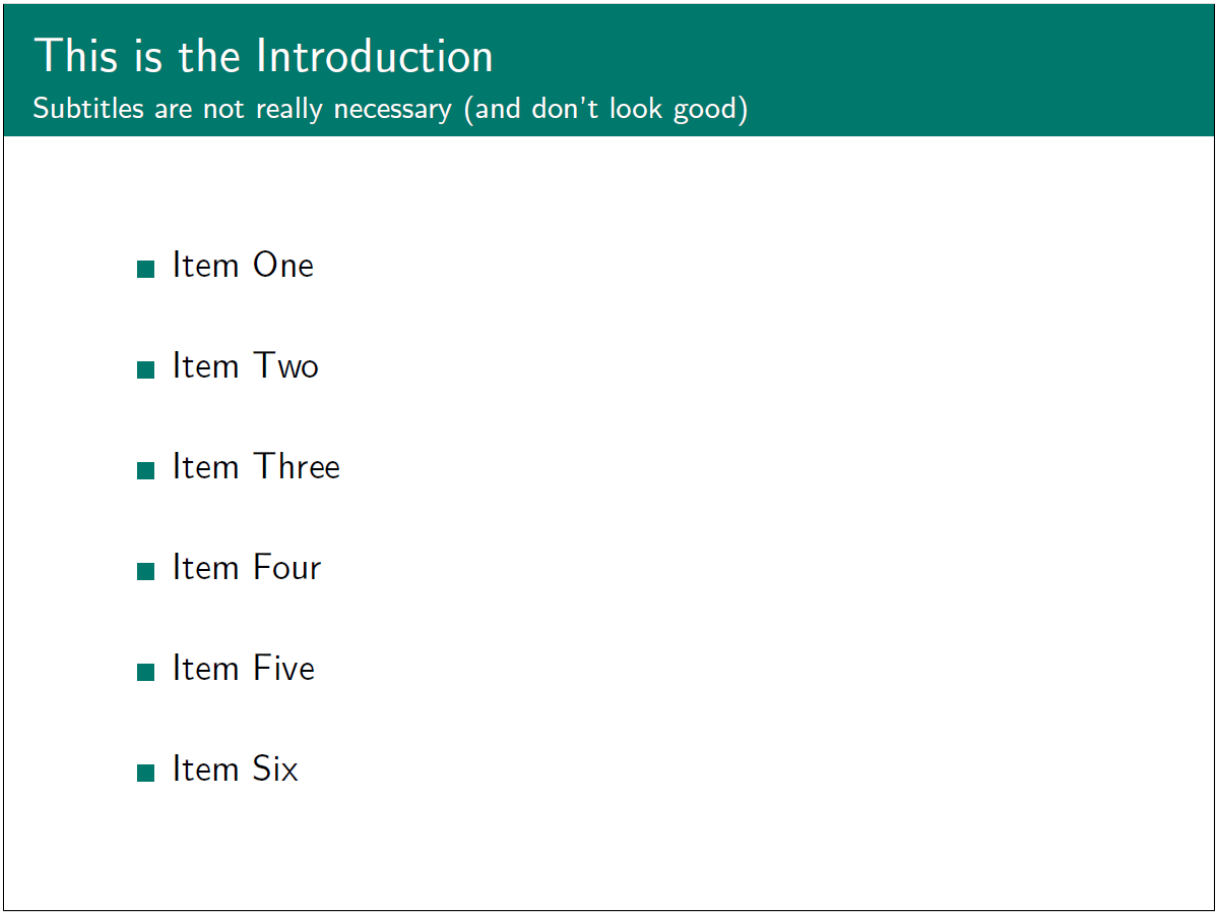

Figure 1: The **default** presentation-style without footline

This is the default style and there are no special features. We have nothing to monitor our progress in the slides and there is no footline. The actual code that produces this slide in the default-style looks like this:

[2]Internally LaTeX uses templates, too (e.g. \frametitle invokes a template). This internal templates are completely different from the DIW-Template. To distinguish them we use "template" for internal LaTeX-templates and "Template" for the collection of themes. TeXnically spoken a "Template" is a "theme".

```
\begin{frame}
\frametitle{This is the Introduction}
\framesubtitle{Subtitles are not really necessary (and don't look good)}
\begin{itemize}
  \item Item One \newline
  \item Item Two \newline
  \item Item Three \newline
  \item Item Four \newline
  \item Item Five \newline
  \item Item Six
\end{itemize}
\end{frame}
```

2.2.3 Options I: Footline

As mentioned above you can change the appearance of your presentation-slides. This is done via so-called "options". The option to let appear the footline looks like that:

```
\usetheme[showfootline=true]{diwgc}
```

The resulting slide (with the same code for the frame as above) now looks like that:

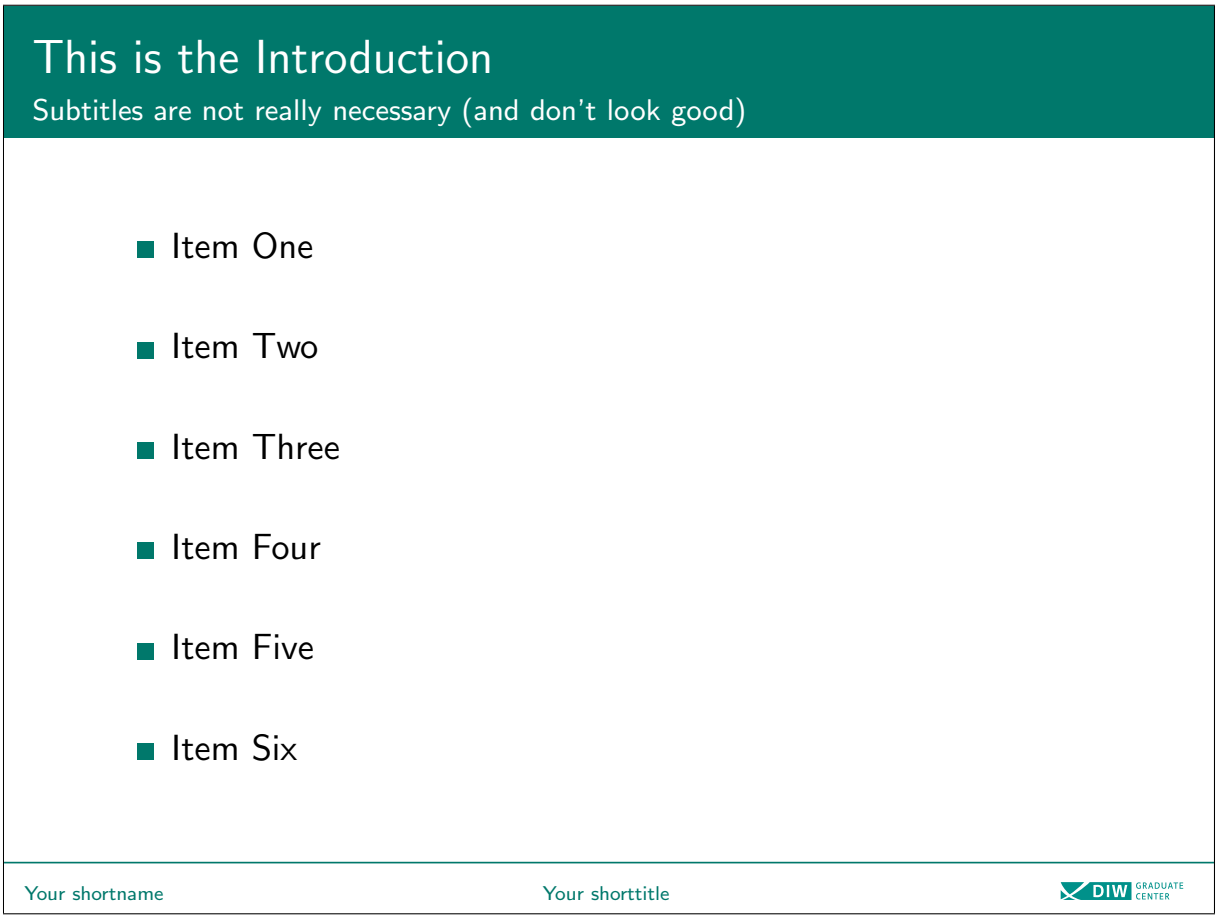

Figure 2: The **default** presentation-style with the footline

There are more footline-options implemented in the DIW-GC-BEAMER-Template. Here is an overview of all of them:

```
\usetheme{diwgc} : no footline
\usetheme[showfootline=true]{diwgc} : footline w/ shortname, shorttitle, GC-Logo
\usetheme[showframenumbers=true]{diwgc} : footline as above w/ framenumbers
\usetheme[showlogo=true]{diwgc} : empty footline with GC-Logo
\usetheme[showlogoonly=true]{diwgc} : GC-Logo only
```

Try all of them and choose the one you like best.

2.2.4 Options II: Outerthemes

Another way to change the appearance of your presentation-slides is via "outerthemes". They have to be combined with the presentation-theme. That is done in this way:

```
\usetheme[showfootline=true]{diwgc}
\useoutertheme[subsection=false]{smoothbars}
```

And the resulting slide look this way:

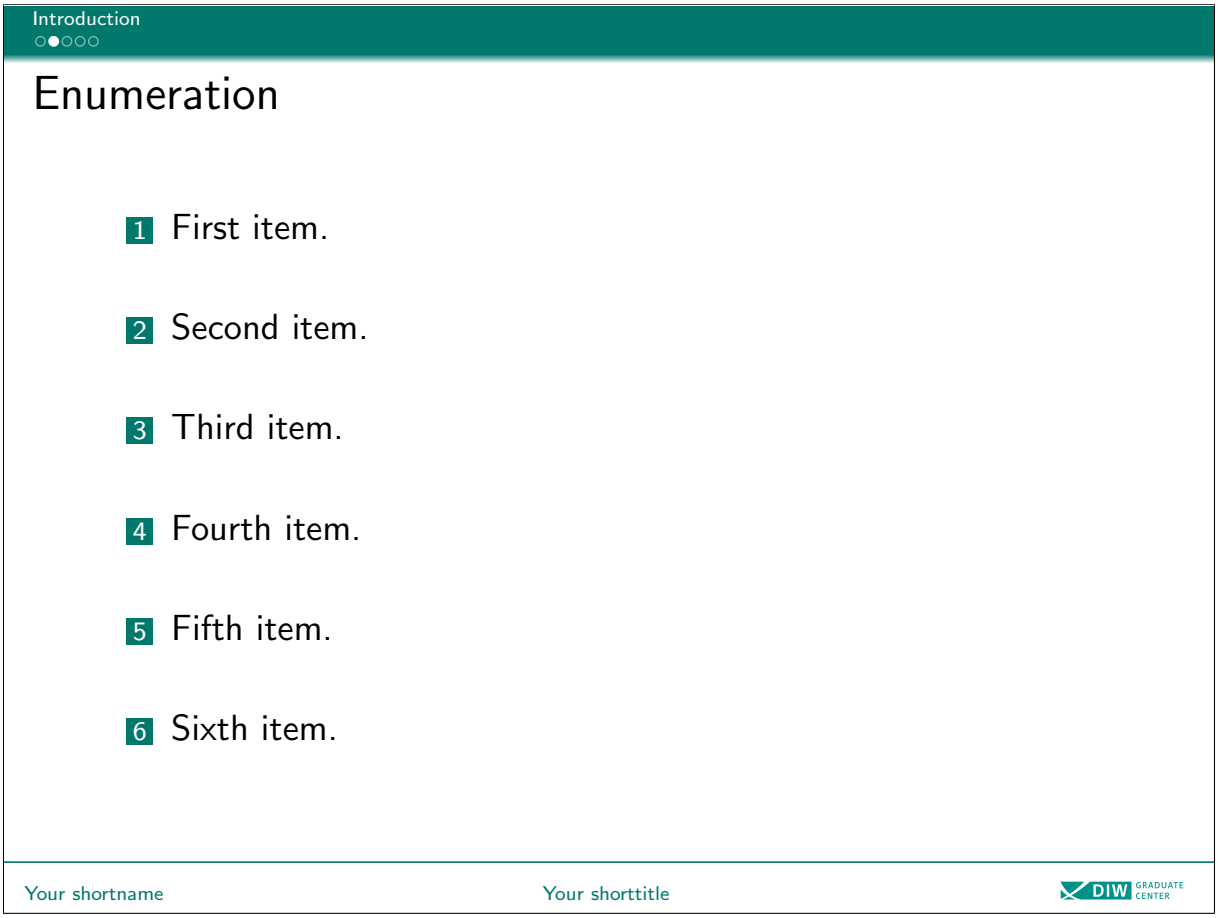

Figure 3: The smoothbars outertheme with footline

The special feature added here is the bar at the top of the slide that lets you and your audience monitor the progress of your presentation. Additionally the style of the headline has changed. This is just one example. Try the others to find the one you like best. Here is the overview: (Note the special footlines in shadowdiwgc, splitdiwgc and shadow.)

```
\useoutertheme[subsection=false]{smoothbars}
\useoutertheme[subsection=true]{smoothbars}
\useoutertheme{shadowdiwgc}
\useoutertheme{splitdiwgc}
\useoutertheme{shadow}
```

Please note:

```
\usetheme[showfootline=true]{diwgc}
\usetheme[showframenumbers=true]{diwgc}
\usetheme[showlogo=true]{diwgc}
\usetheme[showlogoonly=true]{diwgc}
DO NOT WORK IN COMBINATION WITH:
\useoutertheme{shadowdiwgc}
\useoutertheme{splitdiwgc}
\useoutertheme{shadow}
```

That is because these three outerthemes use their own template to generate the footline and this can not be overwritten by

```
\usetheme[showfootline=true]{diwgc}
```

It is possible to let all footline-options combine with all outherthemes but due to time restrictions this could not be implemented yet. As mentioned in the introduction this is work in progress.

2.2.5 The Titlepage

One part of the code that generates the titlepage has to be located in the so-called preamble. That is the space above

```
\begin{document}
```

where you put the documentclass and let LaTeX know what packages you want to use. This part of the titlepage-code looks like this:

```
\title[Your shorttitle]{This is the title of your presentation}
\subtitle{This is the subtitle of your presentation}

\author[Your shortname]{Your name goes here}

\institute{DIW Berlin Graduate Center}

\date{\today}
```

These commands are quite self-explanatory. The text you put into the brackets (shortname, shorttitle) will appear in the footline of your presentation. The subtitle command is optional. If your presentation does not have a subtitle leave this line of code out (or put a % in front of it). For the date you can use any notation you want instead of using \today .
The other part of the titlepage-code is located directly below

```
\begin{document}
```

and looks like this:

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

After compiling the .tex-file the titlepage will look like this:

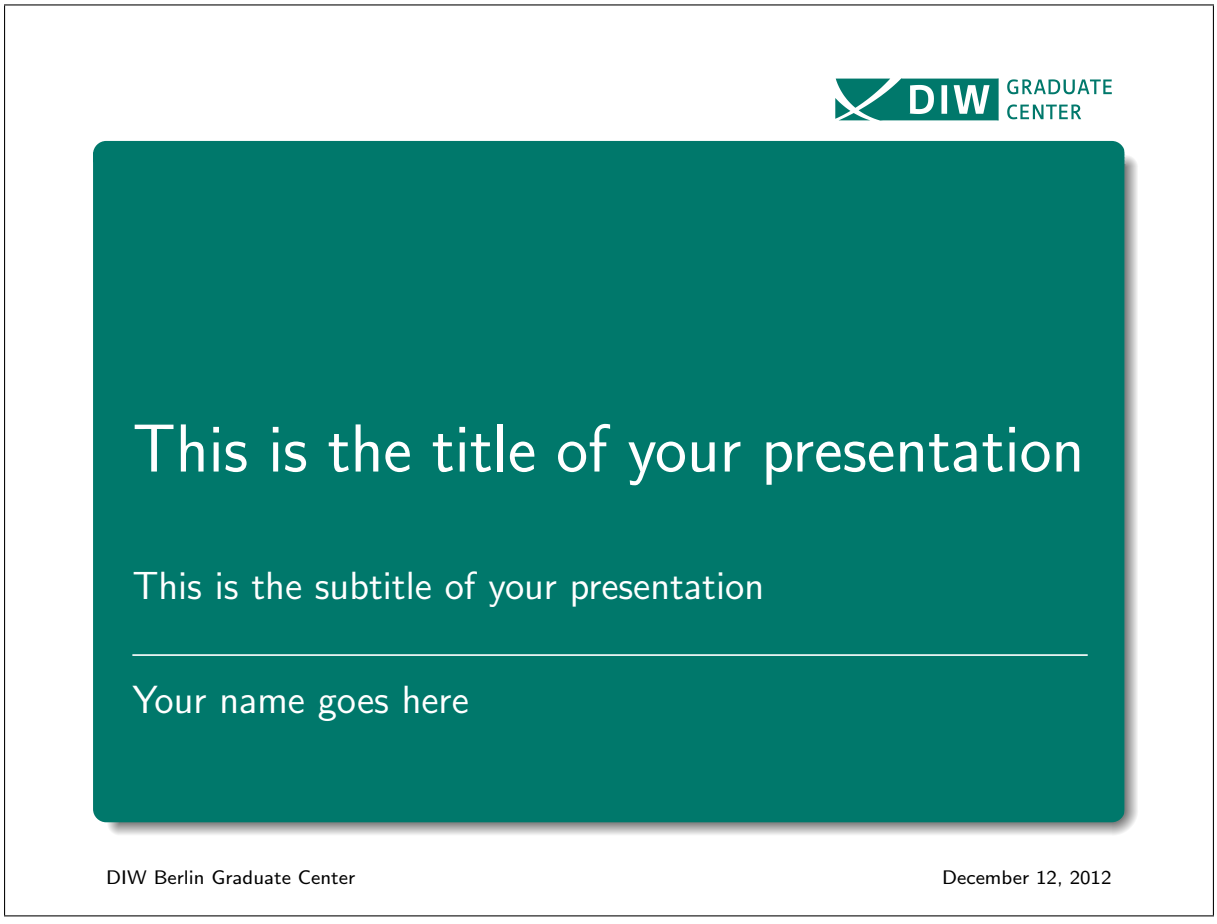

Figure 4: The titlepage

2.2.6 The Last Page

This page is optional. It shows a text and the address of the DIW Berlin. If you want to use this page put the code directly above

```
\end{document}
```

If you do not want to use this page leave the below-mentioned code out.

```
\newcommand{\LastPageText}{Your text goes right here!}
\begin{frame}[plain]
\lastpage
\end{frame}
```

After compiling the .tex file the page will look like this:

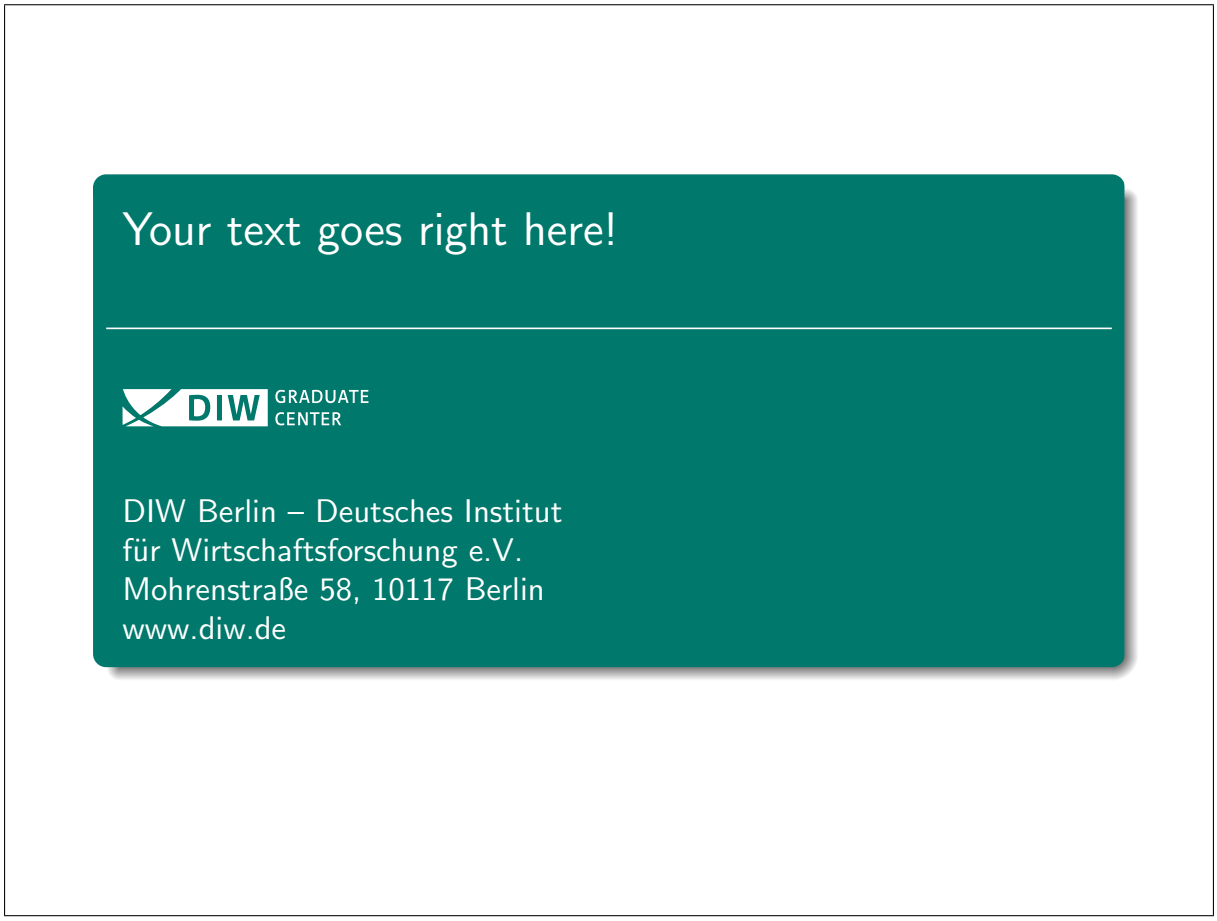

Figure 5: The last page

Note: Unlike the green box on the titlepage the green box on this page is able to resize dynamically. That means: the more text you put into it, the bigger it grows.

Chapter 3

The DIW-Poster-Template

tba

Chapter 4

The DIW-Dissertation-Template

tba

Chapter 5

Command Collection

Here are some commands you will use quite often when working with the Beamer-class.
. . . tba

Chapter 6

Useful Links

Here are some links that may help you with your work with LaTeX. This list is by no means complete.

Introduction to the Beamer-class:
http://www.mathematik.uni-leipzig.de/~hellmund/LaTeX/beamer2.pdf

The definite Beamer user guide: Strongly recommended!!! http://www.tex.ac.uk/CTAN/macros/latex/contrib/beamer/doc/beameruserguide.pdf

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