

The ZeTeM Theme for the Beamer Class

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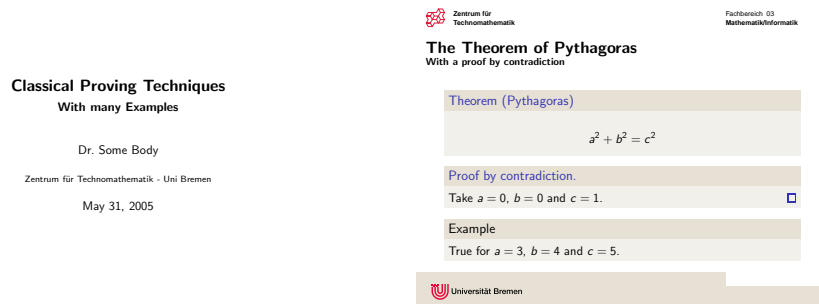
The presentation theme ZeTeM provides the corporate design of the University of Bremen, adapted to the ZeTeM for the beamer class by Till Tantau.

Before you read this instructions to the ZeTeM theme it is recommended to read *The User's Guide to the Beamer Class* [1] and to get familiar with the beamer class.

Basically it is really simple to use the ZeTeM theme. Just use the declaration `\usetheme[options]{ZeTeM}` in your preamble.

The plain version without any options produces an output like this:

Example:



There are a few possibilities to control the appearance of the theme. These will be explained in the next sections.

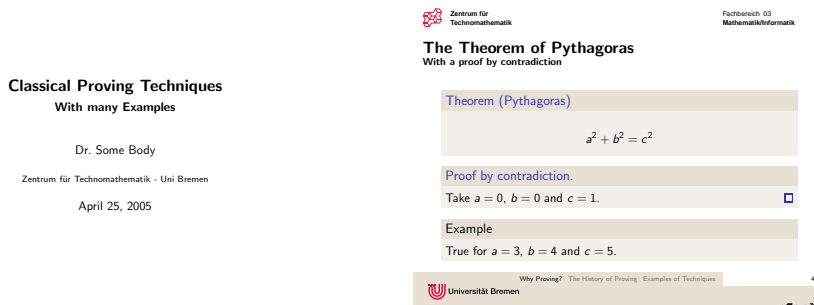
1 The outer theme

Following options can be given to control what is happening outside the frame:

- `noheadline` suppresses the headline.
- `headlinetitle` shows the short version of the title in the middle of the headline.
- `nofootline` suppresses the footline.
- `footlinesection` adds a navigation bar containing all sections with the current section highlighted to the footline.

- `footlineauthor` adds the short version of the name of the author to the footline.
- `footlinenumber` adds $\langle \text{number of current frame} / \text{total number of frames} \rangle$ to the footline.
- `navline=false` suppresses the usual navigation line provided by the beamer class (default).
- `navline=small` shows a small navigation line provided by the beamer class.
- `navline=true` shows the full navigation line provided by the beamer class.

For example the declaration
`\usetheme[footlinesection,footlinenumber,navline=small]{ZeTeM}`
 produces:
Example:



The corporate design provides places for logos of partners in the footline. To include logos of partners use the commands `\partnerlogo{\langle Text or command \rangle}` or `\secondarypartnerlogo{\langle Text or command \rangle}`. As the University Bremen says: “The logos should be harmonious in size and position.”

The logo of the University Bremen has been included in the corporate design with the command `\includegraphics[height=2\baselineskip]{unilogo}` and thus has the height 2baselineskip . For partner logos it is recommended to use a size declaration which bases on the font size (like `\baselineskip`) to ensure that the outcome looks pretty after changing font sizes.

A student from the SCiE group who gives a talk within the DFG priority program 1114 could use

```
\partnerlogo{
  \includegraphics[height=2.6\baselineskip]{scieshort}}
\secondarypartnerlogo{
  \includegraphics[height=2.6\baselineskip]{spp1114logo}}
```

to produce

Example:

Classical Proving Techniques
With many Examples

Dr. Some Body

Zentrum für Technomathematik - Uni Bremen

May 31, 2005

The screenshot shows a Beamer presentation slide. At the top left, it says 'Zentrum für Technomathematik'. At the top right, it says 'Fachbereich 03 Mathematik/Informatik'. The main title is 'The Theorem of Pythagoras' with the subtitle 'With a proof by contradiction'. The slide content is organized into sections: 'Theorem (Pythagoras)' with the equation $a^2 + b^2 = c^2$; 'Proof by contradiction.' with the text 'Take $a = 0$, $b = 0$ and $c = 1$.'; and 'Example' with the text 'True for $a = 3$, $b = 4$ and $c = 5$.'. At the bottom, there is a footer with logos for 'Universität Bremen', 'SCE', and 'Why Proving? The History of Proving - Examples of Techniques' along with a page number '4/8'.

2 Colors

Colors are always a delicate subject concerning presentations, especially beamer presentations. Because bright colors (like the Pantone cool gray 1 used by the corporate design of the University Bremen) often appear to be too bright on many beamers, several options are provided to make the colors darker.

Following options can be used to control the appearance of cool gray 1 in the ZeTeM theme:

- `bright` uses the colors as specified by the corporate design,
- `dim` is slightly darker,
- `dark` is somewhat more darker.

Furthermore it is possible to switch on the color which is used for examples (a dark green) provided by the beamer class by giving the option

- `example`.

By default the color for structure elements (e. g. the item bullets, the tables of contents,...) is set to a dark blue. To redefine the color used for structures use the color theme `structure`:

```
\usecolortheme[colordefinition]{structure}.
```

The color can be defined according to the `color` or `xcolor` package. For example use `\usecolortheme[named=black]{structure}` for black structures or `\usecolortheme[rgb={.5,0,.5}]{structure}` for a dark purple.

```
\usetheme[dark,example]{ZeTeM}
\usecolortheme[rgb={.5,0,.5}]{structure}
```

produces:

Example:

Classical Proving Techniques
With many Examples

Dr. Some Body

Zentrum für Technomathematik - Uni Bremen

May 31, 2005

The screenshot shows a Beamer presentation slide. At the top left is the logo of the Zentrum für Technomathematik. At the top right is the text 'Fachbereich 03 Mathematik/Informatik'. The main title is 'The Theorem of Pythagoras' with the subtitle 'With a proof by contradiction'. The slide content is organized into sections: 'Theorem (Pythagoras)' with the equation $a^2 + b^2 = c^2$; 'Proof by contradiction' with the text 'Take $a = 0$, $b = 0$ and $c = 1$.', followed by a small square symbol; 'Example' with the text 'True for $a = 3$, $b = 4$ and $c = 5$ '. At the bottom left is the logo of the Universität Bremen.

3 Combination with other themes

It is possible to combine the presentation theme **ZeTeM** with other themes that come with the **beamer** class.

3.1 Inner themes

It is no problem to use inner themes which are offered by the **beamer** class, i.e. the inner themes **circles**, **rectangles** and **rounded**. The inner theme **inmargin** may cause a little trouble.

3.2 Outer themes

It is recommended, not to change the outer theme. In most cases the results will be nonsatisfying.

3.3 Color themes

It is strongly recommended not to change the color theme (one could even say “forbidden”) though this causes everything to look really weird. Just try `\usecolortheme{albatross}`, for example, and you will see...

The only exception is the color theme **structure** as explained above.

If you need a more detailed tuning of the colors, you have to get into the color management of the **beamer** class and redefine the color templates in the way you like it (see [1], Chapter 17).

3.4 Font themes

The University Bremen has chosen the font Helvetica as corporate design font. Nevertheless we decided not to fix Helvetica as the only possibility for the **ZeTeM** theme (one reason is the poor math typesetting of Helvetica another one is that Helvetica looks bad in combination with other fonts).

By default the Computer Modern Font Sans Serif is used inside the frames.

It is possible to combine the **ZeTeM** theme with other fonts themes from the **beamer** class like **serif** or **structureitalicserif**.

To change the overall fontsize use `\documentclass[xpt]{beamer}`. For more information on fonts have a look at [1] Section 5.6 and Chapter 18.

For example the declaration `\documentclass[12pt]{beamer}`

```
\usepackage{times}
\usetheme[footlinesection]{ZeTeM}
\usefonttheme{serif}
```

produces:

Example:

Classical Proving Techniques

With many Examples

Dr. Some Body

Zentrum für Technomathematik · Uni Bremen

May 31, 2005

Zentrum für Technomathematik Fachbereich 03
Mathematik/Informatik

The Theorem of Pythagoras

With a proof by contradiction

Theorem (Pythagoras)

$$a^2 + b^2 = c^2$$

Proof by contradiction.

Take $a = 0$, $b = 0$ and $c = 1$. □

Example

True for $a = 3$, $b = 4$ and $c = 5$.

Universität Bremen Why Proving? The History of Proving Examples of Techniques

4 Behind the scene

We decided to follow the data structure of the beamer class for the implementation of the **ZeTeM** theme. Though we provide the following files:

The color theme pidgeon: This color theme provides the different versions of Pantone cool gray 1 controlled by the options **bright**, **dim** and **dark** and the official HSK 15 red as alert color.

The outer theme bremen: This outer theme draws the footline and the headline according to the options shown in the first section. Further it provides the commands **fbnum** and **fbname** for the number and name of the department.

The theme Bremen: This theme only combines the color theme **pidgeon**, the outer theme **bremen** and the inner theme **rectangles**. Further it typesets titlelike elements in boldface.

All options are passed to the outer theme **bremen** and the color theme **pidgeon**.

The theme ZeTeM: The **ZeTeM** theme only uses the theme **Bremen** and sets the name and number of the mathematics/computer science department and the logo of the **ZeTeM**(by the command `\insitutelogo`).

All options are passed to the theme **Bremen**.

To change the name of the department use the command `\fbname{\langle Name of department \rangle}`, the number is changed with `\fbnum{\langle XX \rangle}`. To replace the word *Fachbereich* in the headline use `\renewcommand{\fbthename}{\langle New name \rangle}`.

If you use the theme **Bremen** not within the **ZeTeM** you can set the logo of your organisation in the headline with the command `\insitutelogo{}` (a height for the logo of `2.5\baselineskip` goes well with the rest).

References

- [1] Till Tantau, User's Guide to the Beamer Class, Version 3.01, <http://latex-beamer.sourceforge.net>, get the document at <http://www.ctan.org/tex-archive/macros/latex/contrib/beamer/doc/beameruserguide.pdf>, 2004