

Trigon

A Modern, elegant and versatile theme for Beamer

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1 Introduction

Trigon found its origin and inspiration in the graphical guidelines resulting from the visual identity overhaul of the [University of Liège](#) (Belgium).

Although directly inspired from these guidelines, Trigon was stripped out of any mention or specificities related the University and its faculties. This makes the Trigon theme perfectly suitable for many different contexts.

The final product provides a modern, elegant and versatile theme with a high degree of customization.

Trigon’s codebase lives on [Gitlab](#). The implementation of this theme is strongly inspired from the excellent [Metropolis](#) theme by Matthias Vogelgesang, from which it borrows numerous options.

Any feature request, issue report or merge requests are welcome.

2 Getting Started

2.1 Installing from CTAN

The latest stable version of Trigon is available on [CTAN](#) and should now be part of the usual T_EX distributions (T_EX Live, MacT_EX , MikT_EX), under the name beamert_heme-trigon. It means that if your distribution is kept up-to-date, the package should normally be already installed on your system. If this is not the case, consider updating the packages of your Tex distribution.

For T_EX Live and MacT_EX users, this usually means running

```
tlmgr update --all
```

, or if administrative privileges are required

```
sudo tlmgr update --all
```

For MikTeX users, please refer to [the official MikTeX documentation](#).

2.2 Installing from Gitlab

If you want to use the cutting-edge development version of Trigon, you can install it manually by following these steps:

Download the source from [Trigon repository](#) using `git clone` or as a [zip archive](#) of the latest development version.

Compile the style files by running `make sty` inside the downloaded directory. (Or run L^AT_EX directly on `source/trigontheme.ins`.)

Move the resulting `*.sty` files to the folder containing your presentation. To use Trigon with many presentations, run `make install` or move the `*.sty` files to a folder in your T_EX path instead.

Use the theme by declaring `\usetheme{trigon}` in the preamble of your document.

Trigon uses the Make build system to offer the following installation options for advanced users:

`make sty` builds the theme style files.

`make doc` builds this documentation manual.

`make demo` builds a demo presentation to test the features of Trigon.

`make all` builds the theme and manual.

`make clean` removes the files generated by `make all`.

`make install` installs the theme into your local texmf folder.

`make uninstall` removes the theme from your local texmf folder.

2.3 Overleaf

Since October 2021, [TeXLive 2021 is available on Overleaf](#). Trigon is therefore automatically supported for new documents. If you want to switch older documents to use the Trigon theme, you need to [select TeXLive 2021 or higher as your TeX Live version](#) (this may cause issues with other packages used in your presentation).

In addition to that, a template project was created and is publicly available in the [Overleaf Gallery](#) to bootstrap your presentation.

2.4 A Minimal Example

The following code shows a minimal example of a Beamer presentation using Trigon.

```
\documentclass{beamer}
\usetheme{trigon}      % Use trigon theme
\title{A minimal example}
\subtitle{A subtitle example}
\date{\today}
\author{Thomas Lambert}
\institute{Your university or company}
\begin{document}
  \maketitle
  \section{First Section}
  \begin{frame}{First Frame}
    Hello, world!
  \end{frame}
\end{document}
```

2.5 Dependencies

Trigon depends on the **beamer** class and the following standard packages:

- **tikz**
- **pgfplots**

The theme works best with the open source [Source Sans Pro](#) font from Adobe. Therefore, the package **sourcesanspro** is loaded by default with the theme. However, if the user prefers to select an other font, the theme option **nosourcefonts** can be used to prevent the font package from being loaded.

3 Customization

3.1 Package options

Trigon provides a number of options, which can be set using a key=value interface. The primary way to set options is to provide a comma-separated list of option-value pairs when loading Trigon in the preamble:

```
\usetheme[option1=value1, option2=value2, ...]{trigon}
```

Options can be changed at any time — even mid-presentation! — with the `\trigonset` macro.

```
\trigonset{option1=newvalue1, option2=newvalue2, ...}
```

The list of options is structured as shown in the following example.

option key	list of possible values	default
------------	-------------------------------	---------

A short description of the option.

As Trigon implementation is heavily inspired from the excellent [Metropolis](#) theme by Matthias Vogelgesang, many of Metropolis options are also available in Trigon.

3.1.1 Main theme

background	light,dark	light
------------	------------------	-------

Provides the option to have a dark background and light foreground instead of the reverse.

titleformat	regular, smallcaps, allsmallcaps, allcaps	regular
-------------	---	---------

Changes the format of titles, subtitles, section titles, frame titles, and the text on “standout” frames. The available options produce Regular, SmallCaps, allsmallcaps, or ALLCAPS titles. Please refer to [Section 5.1](#) for known issues with these options.

usesourcefonts	true,false	true
----------------	------------------	------

Chooses if the `sourcesanspro` font package should be loaded `true` or not `false`.

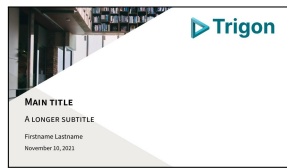
3.1.2 Inner theme

sectionpage `none, simple` `simple`

Adds a slide at the start of each section (`simple`). The `none` option disables the section page.

titlestyle `plain, style1, style2` `style2`

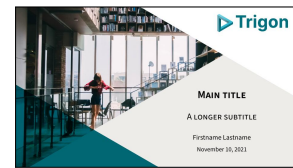
Changes the layout of the title page.



plain



style1



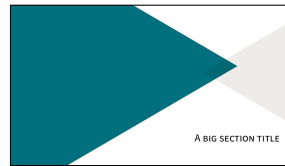
style2 (default)

sectionstyle `plain, style1, style2, style3` `plain`

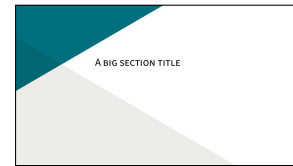
Changes the layout of the section page. `style3` is similar to `plain` but with the right triangle in grey instead of theme color.



plain (default)



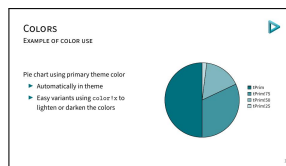
style1



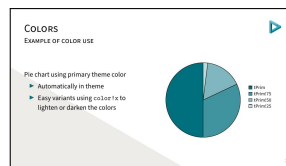
style2

slidestyle `blank, style1, cyber` `blank`

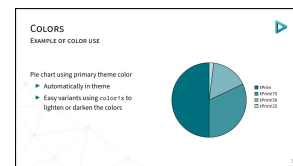
Changes the background of the regular frames.



blank (default)



style1



cyber

3.1.3 Outer theme

numbering `none, counter, fraction` `counter`

Controls whether the frame number at the bottom right of each slide is omitted (`none`), shown (`counter`) or displayed as a fraction of the total number of frames (`fraction`).

3.1.4 Color theme

block `transparent, fill` `fill`

Optionally adds a light grey background to block environments like `theorem` and `example`.

headingcolor `default, theme` `default`

Controls whether the color of all headings (title page, frame title, etc.) should be in black (`default`) or in a slightly darker shade of the theme color `theme`.

textgcolor `default, theme` `default`

Controls whether the color of the regular text elements should be in black (`default`) or in a slightly darker shade of the theme color `theme`.

3.1.5 Font theme

titleformat title `regular, smallcaps, allsmallcaps, allcaps` `regular`
titleformat subtitle Individually controls the format of titles, subtitles, section titles, and frame titles
titleformat section (see `titleformat`, above).
titleformat frame

3.2 Color Customization

The included Trigon color theme is used by default, but its colors can be easily changed to suit your tastes. All of the theme's styles are defined in terms of a few main colors:

- **tPrim** The primary theme color, used for main triangle elements, and for headings and text if the appropriate options are selected.
- **tSec** The secondary theme color (lighter shade of the primary color), used for some triangle elements and example text.

- **tAccent** The accent color, used mostly for alerted text.
- **tGrey** A grey color, used for background elements (triangles, blocks, etc.).
- **tTxt** The default text color.
- **tBg** The default background color.
- **tGreyBg** A tint of grey to use for the triangle elements.
- **tTheme** A tint of the **tPrim** color to use for some triangle elements.

An easy way to customize the theme is to redefine these colors using

```
\colorlet{tPrim}{ ... }
\colorlet{tSec}{ ... }
...
```

in your preamble.

4 Tips & Tricks

4.1 Backup Slides

Speakers will often include extra slides at the end of their presentation to refer to during audience questions. One easy way to do this is to include the `appendixnumberbeamer` package in your preamble and call `\appendix` before your backup slides.

Trigon will automatically turn off slide numbering for slides in the appendix.

5 Known Issues

5.1 Title formats

Be aware that not every font supports small caps, so the `smallcaps` or `allsmallcaps` options may not work if you use a font other than `sourcesanspro`.

The title format options `allsmallcaps` and `allcaps` are quite nice from an aesthetic point of view, but their use of `\MakeLowercase` and `\MakeUppercase` can cause unexpected problems. For example:

- Some commands, like `\`, do not work inside `\MakeLowercase` and `\MakeUppercase`. (See Metropolis [#125](#))
- Only alphabetic characters are affected by `\MakeLowercase`, so numerals and punctuation remain at full height. This can spoil some of the aesthetic benefits of `allsmallcaps`. (See Metropolis [#33](#))
- `\MakeLowercase` and `\MakeUppercase` apply to math mode and `\scshape` does not. This can easily introduce mathematical errors that are hard to catch.
- It is impossible to typeset symbols which are encoded as uppercase letters in a different font. In particular, `\mathbb` and `\mathcal` letters will be replaced by other math glyphs. (See Metropolis [#153](#))

The `allsmallcaps` and `allcaps` options are safe to use if your titles contain only alphabetic characters and do not require the expansion of any macros.

6 License

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7 Implementation

7.1 Trigon parent theme

The primary job of this package is to load the component sub-packages of the Trigon theme and route the theme options accordingly. It also provides some custom commands and environments for the user.

7.1.1 Package dependencies

```
1 \RequirePackage{pgfopts}
2 \RequirePackage{tikz}
```

7.1.2 Options

Most options are passed off to the component sub-packages.

```
3 \pgfkeys{/trigon/.cd,
```

```

4 .search also={
5   /trigon/inner,
6   /trigon/outer,
7   /trigon/color,
8   /trigon/font
9 }
10 }

```

titleformat plain Controls the formatting of the text on standout “plain” frames.

```

11 \pgfkeys{
12   /trigon/titleformat plain/.cd,
13   .is choice,
14   regular/.code={%
15     \let\trigon@plaintitleformat\@empty%
16     \setbeamerfont{standout}{shape=\normalfont}%
17   },
18   smallcaps/.code={%
19     \let\trigon@plaintitleformat\@empty%
20     \setbeamerfont{standout}{shape=\scshape}%
21   },
22   allsmallcaps/.code={%
23     \let\trigon@plaintitleformat\MakeLowercase%
24     \setbeamerfont{standout}{shape=\scshape}%
25     \PackageWarning{beamerthemetrigon}{%
26       Be aware that titleformat plain=allsmallcaps can lead to problems%
27     }
28   },
29   allcaps/.code={%
30     \let\trigon@plaintitleformat\MakeUppercase%
31     \setbeamerfont{standout}{shape=\normalfont}%
32     \PackageWarning{beamerthemetrigon}{%
33       Be aware that titleformat plain=allcaps can lead to problems%
34     }
35   },
36 }

```

titleformat Sets a standard format for titles, subtitles, section titles, frame titles, and the text on standout “plain” frames.

```

37 \pgfkeys{

```

```

38 /trigon/titleformat/.code=\pgfkeysalso{
39   font/titleformat title=#1,
40   font/titleformat subtitle=#1,
41   font/titleformat section=#1,
42   font/titleformat frame=#1,
43   titleformat plain=#1,
44 }
45 }

```

`usesourcefonts` Select whereas the Source Sans Pro font is being loaded automatically or not.

```

46 \newif\if@trigon@usesourcefonts
47 \pgfkeys{/trigon/.cd,
48   usesourcefonts/.is if=@trigon@usesourcefonts,
49   usesourcefonts=true,
50 }

```

7.1.3 Component sub-packages

Having processed the options, we can now load the component sub-packages of the theme.

```

51 \useinnertheme{trigon}
52 \useoutertheme{trigon}
53 \usecolortheme{trigon}
54 \usefonttheme{trigon}

```

7.1.4 Custom commands

The parent theme defines custom commands as their proper usage may depend on multiple sub-packages.

`\metroset` Allows the user to change options midway through a presentation.

```

55 \newcommand{\trigonset}[1]{\pgfkeys{/trigon/.cd,#1}}

```

7.1.5 Process package options

```

56 \ProcessOptionsBeamer
57 \ProcessPgfOptions{/trigon}
58 \if@trigon@usesourcefonts%
59   \RequirePackage[default,t1,semibold]{sourcesanspro}

```

```
60 \fi
```

7.2 Trigon inner theme

A `beamer` inner theme dictates the style of the frame elements traditionally set in the “body” of each slide. These include:

- title, part, and section pages;
- main background elements;
- itemize, enumerate, and description environments;
- block environments including theorems and proofs;
- figures and tables; and
- footnotes and plain text.

7.2.1 Package dependencies

```
61 \RequirePackage{pgfopts}  
62 \RequirePackage{tikz}  
63 \usetikzlibrary{calc,3d}
```

7.2.2 Definitions

We define the command `\logobig` to specify the logo that needs to be applied displayed on the title frame.

```
64 \def\logbig{ }  
65 \newcommand\biglogo[1]{  
66   \def\logbig{#1}  
67 }
```

7.2.3 Options

`sectionpage` Controls whereas a slide with the section title should be inserted at the beginning of the section or not.

```
68 \pgfkeys{  
69   /trigon/inner/sectionpage/.cd,  
70   .is choice,  
71   none/.code=\trigon@disablesectionpage,  
72   simple/.code=\trigon@enablesectionpage
```

73 }

slidestyle Controls the layout that should be used for regular slides.

```
74 \def\slidestyle{}
75 \pgfkeys{
76   /trigon/inner/slidestyle/.cd,
77   .is choice,
78   blank/.code=\def\slidestyle{blank}
79   \setbeamertemplate{background}[\slidestyle],
80   style1/.code=\def\slidestyle{smallcornertriangle}
81   \setbeamertemplate{background}[\slidestyle],
82   cyber/.code=\def\slidestyle{cyberbottom}
83   \setbeamertemplate{background}[\slidestyle]
84 }
```

titlestyle Controls the layout that should be used for the title page.

```
85 \def\titlestyle{}
86 \pgfkeys{
87   /trigon/inner/titlestyle/.cd,
88   .is choice,
89   plain/.code=\def\titlestyle{bottomtrianglescolor},
90   style1/.code=\def\titlestyle{titlesmallimage},
91   style2/.code=\def\titlestyle{titlebigimage}
92 }
```

sectionstyle Controls the layout that should be used for the title page.

```
93 \def\sectionstyle{}
94 \pgfkeys{
95   /trigon/inner/sectionstyle/.cd,
96   .is choice,
97   plain/.code=\def\sectionstyle{bottomtrianglescolor},
98   style1/.code=\def\sectionstyle{bigtriangles},
99   style2/.code=\def\sectionstyle{lefttriangles},
100  style3/.code=\def\sectionstyle{bottomtrianglesbw}
101 }
```

\trigon@inner@setdefaults Sets default values for the inner theme options.

```

102 \newcommand{\trigon@inner@setdefaults}{
103   \pgfkeys{/trigon/inner/.cd,
104     sectionpage=simple,
105     slidestyle=blank,
106     titlestyle=style2,
107     sectionstyle=plain
108   }
109 }

```

7.2.4 Backgrounds

First of all, we define a few commands in order easily create the triangles used as the main design elements of the theme. All these are defined with respect to the `\paperwidth` and `\paperheight` of the document, so that it fits the different aspect ratio possible.

`\leftTriangle` Defines a triangle with the base on the left side (pointing right).

```

110 \newcommand{\leftTriangle}[2]{
111   (#1,#2)
112   -- (0,{#2 + tan(30)*#1} )
113   -- (0,{#2 - tan(30)*#1} )
114   -- cycle;
115 }

```

`\rightTriangle` Defines a triangle with the base on the right side (pointing left).

```

116 \newcommand{\rightTriangle}[2]{
117   (#1,#2)
118   -- (\the\paperwidth,{#2 + tan(30)*(\the\paperwidth-#1)} )
119   -- (\the\paperwidth,{#2 - tan(30)*(\the\paperwidth-#1)} )
120   -- cycle;
121 }

```

`\topTriangle` Defines a triangle with the base on the bottom side (pointing top).

```

122 \newcommand{\topTriangle}[2]{
123   (#1,#2)
124   -- ({#1 - tan(60)*#2},0)
125   -- ({#1 + tan(60)*#2},0)
126   -- cycle;

```

127 }

\leftColorTriangle Defines a colored triangle with the base on the left side (pointing right).

```
128 \newcommand{\leftColorTriangle}[3]{
129   \path[fill=#3]
130   \leftTriangle{#1}{#2}
131 }
```

\rightColorTriangle Defines a colored triangle with the base on the right side (pointing left).

```
132 \newcommand{\rightColorTriangle}[3]{
133   \path[fill=#3]
134   \rightTriangle{#1}{#2}
135 }
```

\topColorTriangle Defines a colored triangle with the base on the bottom side (pointing top).

```
136 \newcommand{\topColorTriangle}[3]{
137   \path[fill=#3]
138   \topTriangle{#1}{#2}
139 }
```

We then define the different backgrounds choices.

blank Blank slide background.

```
140 \defbeamertemplate{background}{blank}{}{}
```

smallcornertriangle Background with a small triangle in bottom left corner (used for normal frames when the appropriate option is selected).

```
141 \defbeamertemplate{background}{smallcornertriangle}{
142   \begin{tikzpicture}[blend group=multiply]
143     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
144     \leftColorTriangle{0.62\paperwidth}{0}{tGrey!30!tBg}
145   \end{tikzpicture}
146 }
```

cyberbottom Background with "mesh" effect on the bottom left corner (used for normal frames when the appropriate option is selected).

```

147 \defbeamertemplate{background}{cyberbottom}{
148   \tikzstyle{cyberVertex}=[scale=1,draw=tGreyBg,circle,fill=tBg]
149   \tikzstyle{cyberVertex2}=[scale=0.5,draw=tGreyBg,circle,fill=tGreyBg]
150   \tikzstyle{cyberEdge} = [draw,color=tGreyBg]
151   \begin{tikzpicture}%[blend group=multiply]
152     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
153     \foreach \pos/\name in {
154       {(-0.05\paperwidth,0.75\paperheight)/0},
155       {(0.02\paperwidth,0.53\paperheight)/1},
156       {(-0.04\paperwidth,0.38\paperheight)/2},
157       {(0.08\paperwidth,0.40\paperheight)/3},
158       {(0.052\paperwidth,0.21\paperheight)/5},
159       {(0.24\paperwidth,0.26\paperheight)/6},
160       {(-0.08\paperwidth,-0.06\paperheight)/7},
161       {(0.12\paperwidth,0.07\paperheight)/8},
162       {(0.2\paperwidth,0.-0.08\paperheight)/9},
163       {(0.38\paperwidth,0.06\paperheight)/10},
164       {(0.56\paperwidth,-0.08\paperheight)/11}}
165     \node[cyberVertex] (\name) at \pos {};
166     \foreach \pos/\name in {
167       {(-0.05\paperwidth,0.75\paperheight)/0},
168       {(0.02\paperwidth,0.53\paperheight)/1},
169       {(-0.04\paperwidth,0.38\paperheight)/2},
170       {(0.08\paperwidth,0.40\paperheight)/3},
171       {(0.052\paperwidth,0.21\paperheight)/5},
172       {(0.24\paperwidth,0.26\paperheight)/6},
173       {(-0.08\paperwidth,-0.06\paperheight)/7},
174       {(0.12\paperwidth,0.07\paperheight)/8},
175       {(0.2\paperwidth,0.-0.08\paperheight)/9},
176       {(0.38\paperwidth,0.06\paperheight)/10},
177       {(0.56\paperwidth,-0.08\paperheight)/11}}
178     \node[cyberVertex2] (\name_2) at \pos {};
179     \foreach \source/ \dest in
180       {0/1,1/2,1/3,2/3,2/5,3/5,3/6,5/6,5/7,7/8,5/8,8/6,8/9,6/9,9/10,10/6,10/11}
181     \path[cyberEdge] (\source) -- (\dest);
182   \end{tikzpicture}
183 }

```

titlebigimage Background for title page with a big image in the top left corener.


```

184 \defbeamertemplate{background}{titlebigimage}{
185   \begin{tikzpicture}
186     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
187     \begin{scope}[blend group=multiply]
188       \path[fill=tTheme]\leftTriangle{0.5\paperwidth}{0};
189       \topColorTriangle{0.73\paperwidth}{0.70\paperheight}{tGrey!30!tBg};
190       \ifx\inserttitlegraphic\@empty
191         \leftColorTriangle{0.73\paperwidth}{0.70\paperheight}{tTheme}
192       \else
193         \path[clip]\leftTriangle{0.73\paperwidth}{0.70\paperheight};
194         \node[anchor=north west, inner sep=0pt, outer sep=0pt] at (0,\the\paperheight) {\inserttitlegraphic}
195       \fi
196     \end{scope}
197     \path[fill=tBg]\rightTriangle{0.45\paperwidth}{\the\paperheight};
198     \ifx\logbig\@empty \else
199       \node[anchor=north east, inner sep=0mm] at
200         (.96*\the\paperwidth,.96*\the\paperheight) {\includegraphics[width=0.28\textwidth]{\logbig}}
201     \fi
202   \end{tikzpicture}
203 }

```

titlesmallimage Background for the titlepage with a small image in the top left corner.

```

204 \defbeamertemplate{background}{titlesmallimage}{
205   \begin{tikzpicture}[blend group=multiply]
206     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
207     \leftColorTriangle{0.58\paperwidth}{0}{tGrey!30!tBg}
208     \ifx\logbig\@empty \else
209       \node[anchor=north east, inner sep=0mm] at (.94*\the\paperwidth,.94*\the\paperheight) {\inserttitlegraphic}
210     \fi
211     \ifx\inserttitlegraphic\@empty
212       \leftColorTriangle{0.58\paperwidth}{\the\paperheight}{tTheme}
213     \else
214       \path[clip]\leftTriangle{0.58\paperwidth}{\the\paperheight};
215       \node[anchor=north west, inner sep=0pt, outer sep=0pt] at (0,\the\paperheight) {\inserttitlegraphic}
216     \fi
217   \end{tikzpicture}
218 }

```

bottomtrianglescolor Background for title/section pages with two colored triangles in the bottom.

```
219 \defbeamertemplate{background}{bottomtrianglescolor}{
220   \begin{tikzpicture}[blend group=multiply]
221     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
222     \leftColorTriangle{0.62\paperwidth}{0}{tTheme}
223     \rightColorTriangle{0.38\paperwidth}{0}{tSec}
224   \end{tikzpicture}
225 }
```

bottomtrianglesbw Background for title/section pages with two black and white triangles in the bottom.

```
226 \defbeamertemplate{background}{bottomtrianglesbw}{
227   \begin{tikzpicture}[blend group=multiply]
228     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
229     \leftColorTriangle{0.62\paperwidth}{0}{tTheme}
230     \rightColorTriangle{0.38\paperwidth}{0}{tGrey!30!tBg}
231   \end{tikzpicture}
232 }
```

bigtriangles Background for section pages with a big triangle on the left.

```
233 \defbeamertemplate{background}{bigtriangles}{
234   \begin{tikzpicture}[blend group=multiply]
235     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
236     \leftColorTriangle{0.80\paperwidth}{0.62\paperheight}{tTheme}
237     \rightColorTriangle{0.68\paperwidth}{0.58\paperheight}{tGrey!30!tBg}
238   \end{tikzpicture}
239 }
```

lefttriangles Background for section pages with small triangles on the left.

```
240 \defbeamertemplate{background}{lefttriangles}{
241   \begin{tikzpicture}[blend group=multiply]
242     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
243     \leftColorTriangle{0.52\paperwidth}{\the\paperheight}{tTheme}
244     \leftColorTriangle{0.775\paperwidth}{0}{tGrey!30!tBg}
245   \end{tikzpicture}
246 }
```

Before anything, the regular frame background is selected.

```
247 \setbeamertemplate{background}[\slidestyle]
```

Finally, we need to set the backgrounds properly before creating the different frames, create the special frames (title, section) and restore the regular background afterwards.

`\titleframe` Sets the titleframe.

```
248 \newcommand{\titleframe}{
249   \setbeamertemplate{title page}[\titlestyle]
250   \setbeamertemplate{background}[\titlestyle]
251   \frame[plain,noframenumbering]{\titlepage}
252   \setbeamertemplate{background}[\slidestyle]
253 }
```

`\sectionframe` Sets the titleframe.

```
254 \newcommand{\sectionframe}{
255   \setbeamertemplate{section page}[\sectionstyle]
256   \setbeamertemplate{background}[\sectionstyle]
257   \frame[plain,noframenumbering]{\sectionpage}
258   \setbeamertemplate{background}[\slidestyle]
259 }
260 \newcommand{\trigon@disablesectionpage}{
261   \AtBeginSection{
262     % intentionally empty
263   }
264 }
265 \newcommand{\trigon@enablesectionpage}{
266   \AtBeginSection{
267     \sectionframe
268   }
269 }
```

7.2.5 Layout

The following macros define the proper position of the various elements of the frame, so the fit nicely with the different background selected.

`titlebigimage` Place the text on the title frame with a big image on the top left side.

```

270 \defbeamertemplate{title page}{titlebigimage}
271 {
272   \vskip135pt
273   \begin{flushright}
274     \begin{minipage}[t][c]{0.5\textwidth}%
275       \centering
276       \usebeamerfont{title}\usebeamercolor[fg]{title}
277       \inserttitle\par
278     \end{minipage}
279     \ifx \insertsubtitle\@empty
280   \else
281     \vskip15pt
282     \begin{minipage}[t][c]{0.5\textwidth}%
283       \centering
284       \usebeamerfont{subtitle}\insertsubtitle\par%
285     \end{minipage}
286   \fi
287   \vskip13pt
288   \begin{minipage}[t][c]{0.5\textwidth}%
289     \centering
290     \usebeamerfont{author}\insertauthor%
291     \vskip5pt
292     \usebeamerfont{date}\insertdate%
293   \end{minipage}
294 \end{flushright}
295 \vfill
296 }

```

`titlesmallimage` Place the text on the title frame with a small image on the top left side.

```

297 \defbeamertemplate{title page}{titlesmallimage}
298 {
299   \vskip140pt%
300   \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{title page header}
301     \usebeamerfont{title}\usebeamercolor[fg]{title}\inserttitle\par%
302   \end{beamercolorbox}%
303   \ifx \insertsubtitle\@empty
304 \else
305   \vskip8pt

```

```

306 \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{subtitle page header}
307   \usebeamerfont{subtitle}\insertsubtitle\par%
308 \end{beamercolorbox}%
309 \fi
310 \vskip10pt
311 \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{author}
312   \usebeamerfont{author}\insertauthor%
313 \end{beamercolorbox}
314 \vskip2pt%
315 \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{date}
316   \usebeamerfont{date}\insertdate%
317 \end{beamercolorbox}
318 \vfill
319 }

```

bottomtrianglescolor Place the text on the title frame with two triangles on the bottom.

```

320 \defbeamertemplate{title page}{bottomtrianglescolor}
321 {
322   \vskip0pt
323   \begin{center}
324     \begin{minipage}[t][t]{\textwidth}
325       \centering%
326       \ifx\logbig\@empty \else
327         \includegraphics[height=0.15\textheight]{\logbig}
328       \fi
329     \end{minipage}
330     \vskip15pt
331     \begin{minipage}[t][c]{\textwidth}%
332       \centering
333       \usebeamerfont{title}\usebeamercolor[fg]{title}
334       \inserttitle\par
335     \end{minipage}
336     \ifx \insertsubtitle\@empty
337   \else
338     \vskip15pt
339     \begin{minipage}[t][c]{\textwidth}%
340       \centering
341       \usebeamerfont{subtitle}\insertsubtitle\par%
342     \end{minipage}

```

```

343 \fi
344 \vskip20pt
345 \begin{minipage}[t][c]{0.5\textwidth}%
346 \centering
347 \usebeamerfont{author}\insertauthor\[\[0.3cm]%
348 \usebeamerfont{date}\insertdate
349 \end{minipage}
350 \end{center}
351 \vfill
352 }

```

bottomtrianglescolor Place the text on the section frame with two colored triangles on the bottom.

```

353 \defbeamertemplate{section page}{bottomtrianglescolor}
354 {
355 \vskip40pt
356 \begin{center}
357 \begin{minipage}[t][c]{\textwidth}%
358 \centering
359 \usebeamerfont{section title}\usebeamercolor[fg]{title}
360 \insertsectionhead\par
361 \end{minipage}
362 \end{center}
363 \vfill
364 }

```

bottomtrianglesbw Place the text on the section frame with two black and white triangles on the bottom.

```

365 \defbeamertemplate{section page}{bottomtrianglesbw}
366 {
367 \vskip40pt
368 \begin{center}
369 \begin{minipage}[t][c]{\textwidth}%
370 \centering
371 \usebeamerfont{section title}\usebeamercolor[fg]{title}
372 \insertsectionhead\par
373 \end{minipage}
374 \end{center}
375 \vfill
376 }

```

bigtriangles Place the text on the section frame with two big triangles.

```

377 \defbeamertemplate{section page}{bigtriangles}
378 {
379   \vskip200pt
380   \begin{flushright}
381     \begin{minipage}[t]{0.62\textwidth}%7
382       \usebeamerfont{section title}\usebeamercolor[fg]{title}
383       \raggedleft
384       \insertsectionhead\par
385     \end{minipage}
386   \end{flushright}
387   \vfill
388 }

```

lefttriangles Place the text on the section frame with two small left triangles.

```

389 \defbeamertemplate{section page}{lefttriangles}
390 {
391   \vskip25pt
392   \begin{beamercolorbox}[wd=\textwidth,leftskip=100pt,sep=4pt]{section page header}
393     \usebeamerfont{section title}\usebeamercolor[fg]{title}
394     \insertsectionhead\par
395   \end{beamercolorbox}%
396   \vfill
397 }

```

7.2.6 Block environments

block The three different block environments differ only in their colours. Rather than
block alerted repeat the essentially the same template three times, we use the auxiliary macro
block example `\trigon@block` to define all three templates.

```

398 \newlength{\trigon@blocksep}
399 \newlength{\trigon@blockadjust}
400 \setlength{\trigon@blocksep}{0.75ex}
401 \setlength{\trigon@blockadjust}{0.25ex}
402 \providecommand{\trigon@strut}{%
403   \vphantom{ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz}}%
404 }
405 \newcommand{\trigon@block}[1]{

```

```

406 \par\vskip\medskipamount%
407 \setlength{\parskip}{0pt}

```

If a background color is defined for the block title or body, we need to add a little bit of padding to the corresponding box. Ideally, this would be accomplished by setting `colsep=0.75ex`, which is intended to add “color separation space” only when the box has a colored background. Unfortunately, `colsep` also adds this separation if the background color is inherited, even if the inherited color is actually empty. (The technical reason for this boils down to the fact that the `\ifx` directive does not expand macros.)

To achieve the correct spacing for `alertblocks` and `exampleblocks` as well as for normal blocks, we have to begin the `beamercolorbox` differently based on whether `block title` has an empty background.

If the `block title` background is empty, or the user has explicitly removed the background from (e.g.) `block title alerted`, we just need to set a `rightskip` for a nice ragged-right block title.

```

408 \ifbeamercoloreempty[bg]{block title#1}{%
409   \begin{beamercolorbox}[rightskip=0pt plus 4em]{block title#1}}{%
410   \ifbeamercoloreempty[bg]{block title}{%
411     \begin{beamercolorbox}[rightskip=0pt plus 4em]{block title#1}%
412   }%

```

Otherwise, if the `block title` has a background, we set the padding based on `\trigon@blockskip`. However, we have to visually compensate for the `\trigon@strut` added to the block title (see below) by subtracting `\trigon@blockadjust` from the top and bottom padding.

```

413 {%
414   \begin{beamercolorbox}[
415     sep=\dimexpr\trigon@blocksep-\trigon@blockadjust\relax,
416     leftskip=\trigon@blockadjust,
417     rightskip=\dimexpr\trigon@blockadjust plus 4em\relax
418   ]{block title#1}%
419 }}%

```

We can now set the contents of the `block title`. The zero-width but positive-height box `\trigon@strut` ensures that the block title box has a consistent height,

even if it lacks punctuation, ascenders, or descenders.

```

420      \usebeamerfont*{block title#1}%
421      \trigon@strut%
422      \insertblocktitle%
423      \trigon@strut%
424      \end{beamercolorbox}%

```

Next, we typeset the `block body`. This the code is similar to, but simpler than, the `block title` code since we don't need to adjust for any struts.

```

425      \nointerlineskip%
426      \ifbeamercoloreempty[bg]{block body#1}{%
427        \begin{beamercolorbox}[vmode]{block body#1}}{
428        \ifbeamercoloreempty[bg]{block body}{%
429          \begin{beamercolorbox}[vmode]{block body#1}%
430        }{%
431          \begin{beamercolorbox}[sep=\trigon@blocksep, vmode]{block body#1}%
432          \vspace{-\trigon@parskip}
433        }}%
434        \usebeamerfont{block body#1}%
435        \setlength{\parskip}{\trigon@parskip}%
436      }

```

This concludes the auxiliary macro `\trigon@block`. Finally, we define the block beamer templates using this macro.

```

437 \setbeamertemplate{block begin}{\trigon@block{}}
438 \setbeamertemplate{block alerted begin}{\trigon@block{ alerted}}
439 \setbeamertemplate{block example begin}{\trigon@block{ example}}
440 \setbeamertemplate{block end}{\end{beamercolorbox}\vspace*{0.2ex}}
441 \setbeamertemplate{block alerted end}{\end{beamercolorbox}\vspace*{0.2ex}}
442 \setbeamertemplate{block example end}{\end{beamercolorbox}\vspace*{0.2ex}}

```

7.2.7 Lists and floats

```

443 \setbeamertemplate{caption label separator}{: }
444 \setbeamertemplate{caption}[numbered]

```

7.2.8 Text and spacing settings

```

445 \newlength{\trigon@parskip}
446 \setlength{\trigon@parskip}{0.5em}

```

```

447 \setlength{\parskip}{\trigon@parskip}
448 \linespread{1.15}

```

7.2.9 Margins

The margins are defined as

```

449 \setbeamersize{text margin left=.05\paperwidth, text margin right=.05\paperwidth}

```

7.2.10 Process package options

```

450 \trigon@inner@setdefaults
451 \ProcessPgfPackageOptions{/trigon/inner}

```

7.3 Trigon outer theme

A `beamer` outer theme dictates the style of the frame elements traditionally set outside the “body” of each slide, such as the frame title, the logo, the footer, etc.

7.3.1 Package dependencies

```

452 \RequirePackage{pgfopts}

```

7.3.2 Definitions

We define the command `\logsmall` to specify the logo that needs to be applied displayed on all normal frames.

```

453 \def\logsmall{}
454 \newcommand\smalllogo[1]{
455   \def\logsmall{#1}
456 }

```

7.3.3 Options

numbering Adds slide number to the bottom of each regular frame

```

457 \pgfkeys{
458   /trigon/outer/numbering/.cd,
459   .is choice,
460   none/.code=\setbeamertemplate{frame numbering}[none],
461   counter/.code=\setbeamertemplate{frame numbering}[counter],
462   fraction/.code=\setbeamertemplate{frame numbering}[fraction]
463 }

```

`\trigon@outer@setdefaults` Sets default values for the outer theme options.

```
464 \newcommand{\trigon@outer@setdefaults}{
465   \pgfkeys{/trigon/outer/.cd,
466     numbering=counter
467   }
468 }
```

7.3.4 Frame title

`frametitle` Template for the frame title

```
469 \defbeamertemplate*{frametitle}{trigon}
470 {
471   \vspace{-1pt}
472   \begin{beamercolorbox}[wd=\paperwidth,leftskip=0.05\paperwidth]{frametitle}
473     \vskip.4cm
474     \ifx\insertframesubtitle\@empty%
475       {\usebeamerfont{frametitle}\usebeamercolor[fg]{frametitle}\insertframetitle}%
476     \else%
477       {\usebeamerfont{frametitle}\usebeamercolor[fg]{frametitle}\insertframetitle}\[-.25cm]
478       {\usebeamerfont{framesubtitle}\usebeamercolor[fg]{framesubtitle}\insertframesubtitle}%
479     \fi
480     \vskip.3cm
481   \end{beamercolorbox}
482 }
```

7.3.5 Fame header

`headline` Templates for the frame header

```
483 \defbeamertemplate{headline}{none}{}
484 \defbeamertemplate*{headline}{logo}{
485   \ifx\logsmall\@empty\else
486     \hfill\includegraphics[width=20pt]{\logsmall}\hspace{20pt}\vspace{-40pt}
487   \fi
488 }
```

7.3.6 Frame footer

Define various template for frame footer and manage frame numbering.

```

489 \setbeamertemplate{navigation symbols}{}
490
491 \defbeamertemplate{frame footer}{none}{}
492 \defbeamertemplate{frame footer}{custom}[1]{ #1 }
493 \defbeamertemplate{frame numbering}{none}{}
494 \defbeamertemplate{frame numbering}{counter}{\insertframenumbers}
495 \defbeamertemplate{frame numbering}{fraction}{
496   \insertframenumbers/\inserttotalframenumbers
497 }
498
499 \defbeamertemplate{footline}{plain}{%
500   \begin{beamercolorbox}[wd=\textwidth, sep=10pt]{page number in head/foot}%
501     \usebeamerfont{page number in head/foot}%
502     \usebeamercolor{fg}{page number in head/foot}%
503     \usebeamertemplate*{frame footer}
504     \hfill%
505     \usebeamertemplate*{frame numbering}
506   \end{beamercolorbox}%
507 }
508
509 \setbeamertemplate{footline}[plain]

```

appendix Removes page numbering and per-slide progress bars when `\appendix` is called. This makes it easier to include additional “backup slides” at the end of the presentation, especially in conjunction with the package `appendixnumberbeamer`.

```

510 \AtBeginDocument{%
511   \apptocmd{\appendix}{%
512     \pgfkeys{%
513       /trigon/outer/.cd,
514       numbering=none}
515   }{}{}
516 }

```

7.3.7 Process package options

```

517 \trigon@outer@setdefaults
518 \ProcessPgfPackageOptions{/trigon/outer}

```

7.4 Trigon font theme

A `beamer` font theme sets the style of the font used in the document.

7.4.1 Package dependencies

```
519 \RequirePackage{pgfopts}
```

7.4.2 Title format options

`titleformat title` Controls the format of the title.

```
520 \pgfkeys{
521   /trigon/font/titleformat title/.cd,
522   .is choice,
523   regular/.code={%
524     \let\trigon@titleformat\@empty%
525     \setbeamerfont{title}{shape=\normalfont}%
526   },
527   smallcaps/.code={%
528     \let\trigon@titleformat\@empty%
529     \setbeamerfont{title}{shape=\scshape}%
530   },
531   allsmallcaps/.code={%
532     \let\trigon@titleformat\lowercase%
533     \setbeamerfont{title}{shape=\scshape}%
534     \PackageWarning{beamerthemetrigon}{%
535       Be aware that titleformat title=allsmallcaps can lead to problems%
536     }
537   },
538   allcaps/.code={%
539     \let\trigon@titleformat\uppercase%
540     \setbeamerfont{title}{shape=\normalfont}%
541     \PackageWarning{beamerthemetrigon}{%
542       Be aware that titleformat title=allcaps can lead to problems%
543     }
544   },
545 }
```

`titleformat subtitle` Controls the format of the subtitle.

```
546 \pgfkeys{
```

```

547 /trigon/font/titleformat subtitle/.cd,
548 .is choice,
549 regular/.code={%
550   \let\trigon@subtitleformat\@empty%
551   \setbeamerfont{subtitle}{shape=\normalfont}%
552 },
553 smallcaps/.code={%
554   \let\trigon@subtitleformat\@empty%
555   \setbeamerfont{subtitle}{shape=\scshape}%
556 },
557 allsmallcaps/.code={%
558   \let\trigon@subtitleformat\lowercase%
559   \setbeamerfont{subtitle}{shape=\scshape}%
560   \PackageWarning{beamerthemetrigon}{%
561     Be aware that titleformat subtitle=allsmallcaps can lead to problems%
562   }
563 },
564 allcaps/.code={%
565   \let\trigon@subtitleformat\uppercase%
566   \setbeamerfont{subtitle}{shape=\normalfont}%
567   \PackageWarning{beamerthemetrigon}{%
568     Be aware that titleformat subtitle=allcaps can lead to problems%
569   }
570 },
571 }

```

`titleformat section` Controls the format of the section title.

```

572 \pgfkeys{
573   /trigon/font/titleformat section/.cd,
574   .is choice,
575   regular/.code={%
576     \let\trigon@sectiontitleformat\@empty%
577     \setbeamerfont{section title}{shape=\normalfont}%
578   },
579   smallcaps/.code={%
580     \let\trigon@sectiontitleformat\@empty%
581     \setbeamerfont{section title}{shape=\scshape}%
582   },
583   allsmallcaps/.code={%

```

```

584 \let\trigon@sectiontitleformat\MakeLowercase%
585 \setbeamerfont{section title}{shape=\scshape}%
586 \PackageWarning{beamerthemetrigon}{%
587   Be aware that titleformat section=allsmallcaps can lead to problems%
588 }
589 },
590 allcaps/.code={%
591   \let\trigon@sectiontitleformat\MakeUppercase%
592   \setbeamerfont{section title}{shape=\normalfont}%
593   \PackageWarning{beamerthemetrigon}{%
594     Be aware that titleformat section=allcaps can lead to problems%
595   }
596 },
597 }

```

`titleformat frame` Controls the format of the frame title.

```

598 \pgfkeys{
599   /trigon/font/titleformat frame/.cd,
600   .is choice,
601   regular/.code={%
602     \let\trigon@frametitleformat\@empty%
603     \setbeamerfont{frametitle}{shape=\normalfont}%
604   },
605   smallcaps/.code={%
606     \let\trigon@frametitleformat\@empty%
607     \setbeamerfont{frametitle}{shape=\scshape}%
608   },
609   allsmallcaps/.code={%
610     \let\trigon@frametitleformat\MakeLowercase%
611     \setbeamerfont{frametitle}{shape=\scshape}%
612     \PackageWarning{beamerthemetrigon}{%
613       Be aware that titleformat frame=allsmallcaps can lead to problems%
614     }
615   },
616   allcaps/.code={%
617     \let\trigon@frametitleformat\MakeUppercase%
618     \setbeamerfont{frametitle}{shape=\normalfont}%
619     \PackageWarning{beamerthemetrigon}{%
620       Be aware that titleformat frame=allcaps can lead to problems%

```

```

621     }
622   },
623 }

```

`titleformat aliases` Allows `titleformat title` et al. to be used in the `\usetheme` declaration, where L^AT_EX automatically removes all spaces.

```

624 \pgfkeys{
625   /trigon/font/.cd,
626   titleformattitle/.code=\pgfkeysalso{titleformat title=#1},
627   titleformatsubtitle/.code=\pgfkeysalso{titleformat subtitle=#1},
628   titleformatsection/.code=\pgfkeysalso{titleformat section=#1},
629   titleformatframe/.code=\pgfkeysalso{titleformat frame=#1},
630 }

```

`\trigon@font@setdefaults` Sets default values for font theme options.

```

631 \newcommand{\trigon@font@setdefaults}{
632   \pgfkeys{/trigon/font/.cd,
633     titleformat title=regular,
634     titleformat subtitle=regular,
635     titleformat section=regular,
636     titleformat frame=regular,
637   }
638 }

```

We first define hooks to change the case format of the titles.

```

639 \def\trigon@titleformat#1{#1}
640 \def\trigon@subtitleformat#1{#1}
641 \def\trigon@sectiontitleformat#1{#1}
642 \def\trigon@frametitleformat#1{#1}

```

To make the uppercase and lowercase macros work in the title, subtitle, etc., we have to patch the appropriate `beamer` commands that set their values. This solution was suggested by Enrico Gregorio in an answer to [this StackExchange question](#).

```

643 \patchcmd{\beamer@title}%
644 {\def\inserttitle{#2}}%
645 {\def\inserttitle{\trigon@titleformat{#2}}}%

```



```

646 {}%
647 {\PackageError{beamerfontthemetrigon}{Patching title failed}\@ehc}
648 \patchcmd{\beamer@subtitle}%
649 {\def\insertsubtitle{#2}}%
650 {\def\insertsubtitle{\trigon@subtitleformat{#2}}}%
651 {}%
652 {\PackageError{beamerfontthemetrigon}{Patching subtitle failed}\@ehc}
653 \patchcmd{\sectionentry}
654 {\def\insertsectionhead{#2}}
655 {\def\insertsectionhead{\trigon@sectiontitleformat{#2}}}
656 {}
657 {\PackageError{beamerfontthemetrigon}{Patching section title failed}\@ehc}
658 \@tempswafalse
659 \patchcmd{\beamer@section}
660 {\edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{\unexpanded{#1}}}}
661 {\edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
662 \noexpand\trigon@sectiontitleformat{\unexpanded{#1}}}}}
663 {\@tempswatrue}
664 {}
665 \patchcmd{\beamer@section}
666 {\def\insertsectionhead{\hyperlink{Navigation\the\c@page}{#1}}}
667 {\def\insertsectionhead{\hyperlink{Navigation\the\c@page}{%
668 \trigon@sectiontitleformat{#1}}}}
669 {\@tempswatrue}
670 {}
671 \patchcmd{\beamer@section}
672 {\protected@edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{#1}}}
673 {\protected@edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
674 \noexpand\trigon@sectiontitleformat{#1}}}}
675 {\@tempswatrue}
676 {}
677 \if@tempswa\else
678 \PackageError{beamerfontthemetrigon}{Patching section title failed}\@ehc
679 \fi
680 \@tempswafalse
681 \patchcmd{\beamer@subsection}
682 {\edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{\unexpanded{#1}}}}
683 {\edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
684 \noexpand\trigon@sectiontitleformat{\unexpanded{#1}}}}}
685 {\@tempswatrue}

```

```

686 {}
687 \patchcmd{\beamer@subsection}
688 {\def\insertsubsectionhead{\hyperlink{Navigation\the\c@page}{#1}}}
689 {\def\insertsubsectionhead{\hyperlink{Navigation\the\c@page}{%
690 \trigon@sectiontitleformat{#1}}}}
691 {\@tempswatrue}
692 {}
693 \patchcmd{\beamer@subsection}
694 {\protected@edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{#1}}}
695 {\protected@edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
696 \noexpand\trigon@sectiontitleformat{#1}}}}
697 {\@tempswatrue}
698 {}
699 \if@tempswa\else
700   \PackageError{beamerfontthemetrigon}{Patching section title failed}\@ehc
701 \fi

```

Similarly, to make the `\MakeLowercase` and `\MakeUppercase` macros work in the frame title we have to patch `\beamer@@frametitle`.

```

702 \patchcmd{\beamer@@frametitle}
703 {{%
704   \gdef\insertframetitle{{#2\ifnum\beamer@autobreakcount>0\relax{}\space%
705   \usebeamertemplate*{frametitle continuation}\fi}}%
706   \gdef\beamer@frametitle{#2}%
707   \gdef\beamer@shortframetitle{#1}%
708 }}
709 {{%
710   \gdef\insertframetitle{{\trigon@frametitleformat{#2}\ifnum%
711     \beamer@autobreakcount>0\relax{}\space%
712   \usebeamertemplate*{frametitle continuation}\fi}}%
713   \gdef\beamer@frametitle{#2}%
714   \gdef\beamer@shortframetitle{#1}%
715 }}
716 {}
717 {\PackageError{beamerfontthemetrigon}{Patching frame title failed}\@ehc}

```

7.4.3 General font definitions

```

718 \setbeamerfont{author}      {size=\normalsize}
719 \setbeamerfont{title}      {size=\LARGE,series=\bfseries}

```

```

720 \setbeamerfont{section title}{size=\LARGE,series=\mdseries}
721 \setbeamerfont{date}          {size=\small}
722 \setbeamerfont*{subtitle}     {size=\Large}
723 \setbeamerfont{frametitle}    {size=\LARGE}
724 \setbeamerfont{framesubtitle}{size=\large}
725
726 \setbeamerfont{alerted text} {size=\normalsize,series=\bfseries}
727 \setbeamerfont{block title}{size=\normalsize,series=\bfseries}
728 \setbeamerfont{block title alerted}{size=\normalsize,series=\bfseries}
729
730 \setbeamerfont{section in toc}{size=\Large}
731 \setbeamerfont{subsection in toc}{size=\large}
732 \setbeamerfont{page number in head/foot}{size=\scriptsize}
733
734 \setbeamerfont{description item}{series=\bfseries}
735 \setbeamerfont{caption}{size=\small}
736 \setbeamerfont{caption name}{series=\bfseries}

```

7.4.4 Process package options

```

737 \trigon@font@setdefaults
738 \ProcessPgfPackageOptions{/trigon/font}

```

7.5 Trigon color theme

A `beamer` color theme sets the colors used for the different elements of the document.

7.5.1 Package dependencies

```

739 \RequirePackage{pgfopts}

```

7.5.2 Options

colors Provides the option to have a dark background and light foreground instead of the reverse.

```

740 \pgfkeys{
741   /trigon/color/background/.cd,
742   .is choice,
743   dark/.code=\trigon@colors@dark,
744   light/.code=\trigon@colors@light
745 }

```

headingcolor Select the color to use for all headings (title, section, frame, etc.).

```
746 \def\headcol{tDefaulttxt}
747 \pgfkeys{
748   /trigon/color/headingcolor/.cd,
749   .is choice,
750   default/.code=\def\headcol{tTxt},
751   theme/.code=\def\headcol{tPrim}
752 }
```

textcolor Select the color to use for all headings (title, section, frame, etc.).

```
753 \def\txcol{black}
754 \pgfkeys{
755   /trigon/color/textcolor/.cd,
756   .is choice,
757   default/.code=\def\txcol{tTxt},
758   theme/.code=\def\txcol{tPrim!50!tTxt}
759 }
```

block Optionally removes the light grey background to block environments like **theorem** and **example**.

```
760 \pgfkeys{
761   /trigon/color/block/.cd,
762   .is choice,
763   transparent/.code=\trigon@block@transparent,
764   fill/.code=\trigon@block@fill
765 }
766 %
767 % \begin{macro}{\trigon@color@setdefaults}
768 % Sets default values for color theme options.
769 % \begin{macrocode}
770 \newcommand{\trigon@color@setdefaults}{
771   \pgfkeys{/trigon/color/.cd,
772     background=light,
773     block=fill,
774     headingcolor=default,
775     textcolor=default
776   }
777 }
```

7.5.3 Base colors

```
778 \definecolor{tGreenBlue}{HTML}{00707F}
779 \definecolor{tGreenBlueLight}{HTML}{5FA4B0}
780 \definecolor{tOrange}{HTML}{F07F3C}
781 \definecolor{tYellowOrange}{HTML}{F8AA00}
782 \definecolor{tBeigePale}{HTML}{E6E6E1}
783 \definecolor{tBeige}{HTML}{C6C0B4}
784 \definecolor{tDarkBg}{HTML}{232931}
785 \definecolor{tDarkFg}{HTML}{EEEEEE}
786 \definecolor{tLightBg}{HTML}{FFFFFF}
```

7.5.4 Derived elements

All the elements are set using the base colors defined here above.

```
787 \newcommand{\trigon@colors@dark}{
788   \colorlet{tPrim}{tGreenBlueLight}
789   \colorlet{tSec}{tGreenBlue}
790   \colorlet{tAccent}{tYellowOrange}
791   \colorlet{tTxt}{tDarkFg}
792   \colorlet{tBg}{tDarkBg}
793   \colorlet{tGreyBg}{tGrey!7!tBg}
794 }
795 \newcommand{\trigon@colors@light}{
796   \colorlet{tPrim}{tGreenBlue}
797   \colorlet{tSec}{tGreenBlue}
798   \colorlet{tAccent}{tOrange}
799   \colorlet{tTxt}{black}
800   \colorlet{tBg}{tLightBg}
801   \colorlet{tGreyBg}{tGrey!25!tBg}
802 }
803 \colorlet{tGrey}{tBeige}
804 \colorlet{tTheme}{tGreenBlue}
805 \setbeamercolor{background canvas}{bg=tBg}
806 \setbeamercolor{normal text}{fg=\txtcol, bg=tBg}
807 \setbeamercolor{example text}{fg=tPrim}
808 \setbeamercolor{alerted text}{fg=tAccent}
809
810 \setbeamercolor{title}{fg=\headcol, bg= , parent=normal text}
811 \setbeamercolor{titlelike}{use=title, parent=title}
812 \setbeamercolor{author}{use=normal text, bg= , parent=normal text}
```

```

813 \setbeamercolor{date}{use=normal text, bg= , parent=normal text}
814 \setbeamercolor{institute}{use=normal text, parent=normal text}
815 \setbeamercolor{structure}{use=normal text, fg=normal text.fg}
816
817 \setbeamercolor{palette primary}{use=titlelike, parent=titlelike}
818 \setbeamercolor{frametitle}{use=titlelike, parent=titlelike}

```

Block environments such as `theorem` and `example` have a grey-tinted background color by default. The option `block=transparent` removes the background color.

```

819 \newcommand{\trigon@block@transparent}{
820   \setbeamercolor{block title}{%
821     use=normal text,
822     fg=normal text.fg,
823     bg=normal text.bg!96!fg
824   }
825   \setbeamercolor{block body}{
826     use={block title, normal text},
827     bg=block title.bg!35!normal text.bg
828   }
829 }
830 \newcommand{\trigon@block@fill}{
831   \setbeamercolor{block title}{%
832     use=normal text,
833     fg=normal text.fg,
834     bg=normal text.bg!80!normal text.fg
835   }
836   \setbeamercolor{block body}{
837     use={block title, normal text},
838     bg=block title.bg!50!normal text.bg
839   }
840 }
841
842 \setbeamercolor{block title alerted}{%
843   use={block title, alerted text},
844   bg=block title.bg,
845   fg=alerted text.fg
846 }
847 \setbeamercolor{block title example}{%
848   use={block title, example text},

```

```

849  bg=block title.bg,
850  fg=example text.fg
851 }
852 \setbeamercolor{block body alerted}{use=block body, parent=block body}
853 \setbeamercolor{block body example}{use=block body, parent=block body}

```

The color of other smaller elements is defined as follows

```

854 \setbeamercolor{footnote}{fg=normal text.fg!90!normal text.bg}
855 \setbeamercolor{footnote mark}{fg=.}
856 \setbeamercolor{footline}{fg=normal text.fg!50!normal text.bg, parent=normal text}
857 \setbeamercolor{caption}{fg=normal text.fg!60!normal text.bg, parent=normal text}
858
859 \setbeamercolor{itemize item}{use=example text, parent=example text}
860 \setbeamercolor{itemize subitem}{use=itemize item, parent=itemize item}
861 \setbeamercolor{itemize subsubitem}{use=itemize item, parent=itemize item}
862 \setbeamercolor{enumerate item}{use=example text, parent=example text}
863 \setbeamercolor{enumerate subitem}{use=enumerate item, parent=enumerate item}
864 \setbeamercolor{enumerate subsubitem}{use=enumerate item, parent=enumerate item}
865 \setbeamercolor{description item}{use=example text, parent=example text}

```

7.5.5 Process package options

```

866 \trigon@color@setdefaults
867 \ProcessPgfPackageOptions{/trigon/color}

```