

Gotham

A Modern, versatile and extendable theme for Beamer

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Center for modern beamer themes

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1. Introduction: Beamer

Title page

The Title page is printed using the command:

```
\maketitle
```

The element printed on this page are defined in the preamble by

```
\title[] {Gotham}  
\subtitle{A Modern, versatile and extendable theme for Beamer}  
\date[] {\today}  
\author[] {Romain NOËL}  
\institute{Center for modern beamer themes}  
\titlegraphic{\hfill\includegraphics[height=1.5cm, draft]{Title_logo.pdf}}
```

The usual page is printed and defined using the command:

```
\begin{frame}{Title on top of the frame}  
  contenu...  
\end{frame }
```

Note that the logo printed on this page are defined in the preamble by

```
\logo{\includegraphics[height=1.5cm, draft]{logo.pdf}}
```

Sections group slides of the same topic

```
\section{Elements}
```

The theme provides sensible defaults to
`\emph{emphasize}` text, `\alert{accent}` parts
or show `\textbf{bold}` results.

becomes

The theme provides sensible defaults to *emphasize* text, **accent** parts or show **bold** results.

Font feature test

- Regular
- *Italic*
- SMALL CAPS
- **Bold**
- *Bold Italic*
- **BOLD SMALL CAPS**
- Monospace
- *Monospace Italic*
- Monospace Bold
- *Monospace Bold Italic*

Items

- Milk
- Eggs
- Potatoes
 - ▶ Milk
 - ▶ Eggs
 - ▶ Potatoes
 - Milk

Enumerations

1. First,
2. Second and
3. Last.

Descriptions

PowerPoint Meeh.
Beamer Yeeeha.

Then, something below the columns, that be long enough to recover all the line-width.

- This is important

- This is important
- Now this

- This is important
- Now this
- And now this

- This is really important
- Now this
- And now this

Commands controlling overlay

Beamer defines a bunch of commands intended to control overlays: `\only<...>{text}`
Throws away text content on slides not in `<...>` `\onslide<...>{text}` Same, but when hidden text still takes space. `\visible<...>{text}` Same. `\uncover<...>{text}` Same, but also handle transparency. `\invisible<...>{text}` Opposite of `\visible`
`\alt<...>{text1}{text2}` Alternates between `text1` and `text2` for `<...>`.
`\temporal<...>{before}{inside}{after}` Alternate between three texts depending on slide index before, inside or after the range of `<...>`. For the commands `\only` and `\alt` the `<...>` can also be after the text. Then `\only` can be used to make commands `<...>`-aware (§9.3) like in: `\newcommand{\myblue}{\only{\color{blue}}}`
`\myblue<2>` This text is blue only on slide 2. Finally, `\only` and `\onslide` without text argument work as toogles. Much more options, described in §9.4 to 9.6

Action specifications

Inside `<...>` it is possible to add some action specifications. Action are specified after the slide range & a — and followed by @ and the target slide or range. For example one can write: `\item<3-|alert@4>` Shown from slide 3 on, alerted on slide 4. which set the `\alert` for item 3 only in slide 4. Actions can be defined for `\item`, `\action`, `\begin{actionenv}\verb` and the block environments and the possible actions are by default, `alert`, `uncover`, `only`, `visible`, `invisible`, but other can be defined by the user. See manual § 9.6.3 Simple example using `uncover` with specified transparency:

```
\setbeamercovered{transparent=30}
\begin{itemize}[<+-|uncover@+>]
  \item first
  \item second
  \item third
\end{itemize}
```

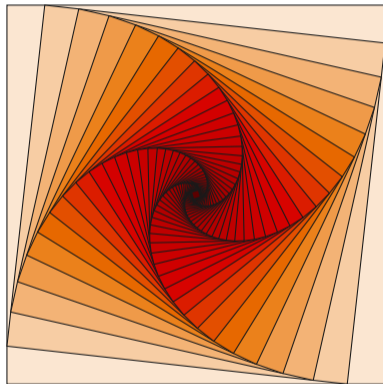


Figure 1: Rotated square with Tikz package from texample.net.

Table 1: Largest cities in the world (source: Wikipedia)

City	Population
Mexico City	20,116,842
Shanghai	19,210,000
Peking	15,796,450
Istanbul	14,160,467

Three different block environments are pre-defined.

Default

Block content.

Alert

Block content.

Example

Block content.

$$e = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n \quad (1)$$

Line plots

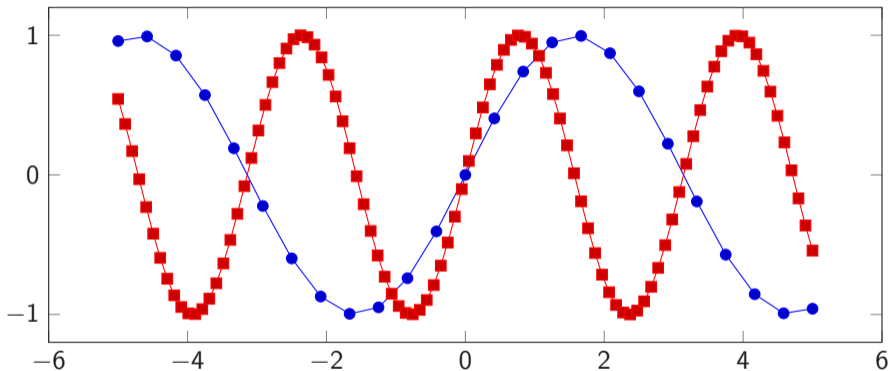


Figure 2: A nice sinus plot with Tikz.

Bar charts

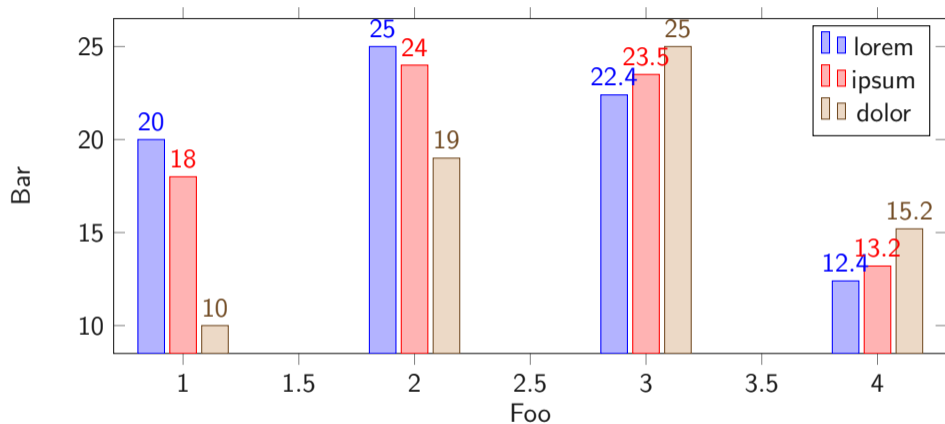






Figure 3: A nice bar chart with Tikz.

Veni, Vidi, Vici

from Julius Caesar.

Some references to showcase `[allowframebreaks]` on next slide `[4, 2, 5, 1, 3]`

References (i)

-  P. Erdős.
A selection of problems and results in combinatorics.
In *Recent trends in combinatorics (Matrahaza, 1995)*, pages 1–6. Cambridge Univ. Press, Cambridge, 1995.
-  R. Graham, D. Knuth, and O. Patashnik.
Concrete mathematics.
Addison-Wesley, Reading, MA, 1989.
-  G. D. Greenwade.
The Comprehensive Tex Archive Network (CTAN).
TUGBoat, 14(3):342–351, 1993.
-  D. Knuth.
Two notes on notation.
Amer. Math. Monthly, 99:403–422, 1992.

-  H. Simpson.
Proof of the Riemann Hypothesis.
preprint (2003), available at <http://www.math.drofnats.edu/riemann.ps>, 2003.

2. Gotham Theme

The **GOTHAM** theme is a Beamer theme with a minimal-ish visual style largely inspired by the **METROPOLIS** Beamer Theme by Matthias Vogelgesang (and some other Beamer themes).

Yet, **GOTHAM** is highly extendable and versatile.

First, enable the theme by classically loading it:

```
\documentclass{beamer}  
\usetheme{gotham}
```

Then, the all customization can be performed at any moment in the presentation using:

```
\gothamset{<option>=...}
```

2. Gotham Theme

2.1. Fonts

Gotham title formats

Note, that you have to have Mozilla's *Fira Sans* font and XeTeX or LuaTeX installed to enjoy this wonderful typography.

GOTHAM supports 4 different title formats

```
\gothamset{format frametitle=}
```

- regular
- lower
- UPPER
- Title case

GOTHAM supports 3 different title shape

```
\gothamset{shape frametitle=...}:
```

- regular
- SMALL CAPS
- *italic*

They can either be set at once for every title type or individually.

This frame uses the title format options: `shape frametitle=smallcaps`, `format frametitle=titlecase`.

Potential Problems

Be aware that not every font supports small caps. If for example you typeset your presentation with pdfTeX and the Computer Modern Sans Serif font, every text in small caps will be typeset with the Computer Modern Serif font instead. Please refer to the documentation if you consider using it.

As a rule of thumb: just use it for plaintext-only titles.

This frame uses the title format options: `format frametitle=upper, shape frametitle=smallcaps`.

Potential problems

As this title format also uses small caps you face the same problems as with the `smallcaps` title format. Additionally this format can cause some other problems. Please refer to the documentation if you consider using it.

This frame uses the title format options: `format frametitle=lower, shape frametitle=regular`.

2. Gotham Theme

2.2. Colors

Presentation style via background color

The color mode (a.k.a. background color) can be changed using:

```
\gothamset{background=dark | light | transparent}
```

Blocks

Three different block environments are pre-defined and may be styled with an optional background color.

```
\gothamset{  
  block=native}
```

Default

Block content.

Alert

Block content.

Example

Block content.

```
\gothamset{  
  block=transparent}
```

Default

Block content.

Alert

Block content.

Example

Block content.

```
\gothamset{  
  block=fill}
```

Default

Block content.

Alert

Block content.

Example

Block content.

The colors can be changed using:

```
\colorlet{colorPale}{gPaleYell} % BG in light/normal mode
\colorlet{colorDark}{gDarkBlack} % FG in light/normal mode
\colorlet{colorA}{gDarkTeal} % frametitle, stdin.out,
\colorlet{colorAreversed}{gLightTeal} % frametitle, stdin.in,
\colorlet{colorB}{gMidGrey} % gray BG : progress bar, blocks
\colorlet{colorC}{gDeepYellOr} % progress bar
\colorlet{colorD}{gLightOrange} % alert
\colorlet{colorE}{gLightGreen} % example
```

2. Gotham Theme

2.3. Inner

GOTHAM offers the possibility to adapt the title page layout (printed with `\maketitle` or `\titlepage`). This can be achieved using:

```
\defbeamertemplate{title page}{your name}{your defintion}  
\gothamset{title page= your name}
```

GOTHAM also predefined several templates such as:

```
gotham normal | gotham splitvert | gotham dividedpic | gotham reversed
```

Table of contents

GOTHAM come with the possibility to apply different style for your table of contents (ToC) page. You can define your own ToC style as it follows:

```
\defbeamertemplate{toc page}{your name}{your def}  
\gothamset{tocframe template= your name}
```

Then, referring to this template using the frame option [toc] in your presentation:

```
\begin{frame}[toc]{Table of contents}  
  \tableofcontents%[hideallsubsections]  
\end{frame }
```

Or using one of the **GOTHAM** predefined template, such as:

```
gotham simple | gotham bullet
```

GOTHAM provides a multiple options to tune sections (respectively part, section, subsection and subsubsection). Thus, using the setting controls:

The section command `\section{Elements}` from Beamer will appear very differently. The section page will appear or disappear thanks to:

`\gothamset{sectionframe default=<on|off>}`, while its layout (when appearing) is controlled by:

```
\defbeamertemplate{part|sub|subsub|section frame}
  {your name}{your def}
\gothamset{sectionframe template= your name}
```

GOTHAM predefined template are: `gotham progressbar | gotham simple | gotham splitvert progressbar | gotham splitvert simple | gotham progressvert`

After the section page, you can (de)activate a page with table of contents in the section using `\gothamset{sectiontocframe default=<on|off>}`, and its layout is controlled by:

```
\defbeamertemplate{toc subsection frame}{your name}{your def}  
\gothamset{sectionframe template= your name}
```

GOTHAM predefined template are: gotham simple | gotham bullet

With **GOTHAM** you can locally or globally add watermark to your slides by using:

```
\defbeamertemplate{background}{watermark/your name}{your def}  
  \gothamset{watermark template= your name}
```

Then, this watermark can be turn on locally using `\begin{frame}[watermark]` or globally with `\gothamset{watermark default= on}` .

Standin

GOTHAM comes with 2 environments/specials layouts named `standin` and `standout`. These specials layouts can be used to emphasize some content or last slide...

This layout can be turn on using `\begin{frame}[standin]` or using the dedicated environment (`\begin{standinenv}\begin{frame}...\end{frame}\end{standinenv}`).

Note that the background can also be tuned using:

```
\defbeamertemplate{background canvas}{standin/name}{your def}  
  \gothamset{standin BG template= name}
```

Standout

Here is an example of standout (working as standin), that can be combined with a watermark.

Another difference, apart the obvious color change is the font size and series.

2. Gotham Theme

2.4. Outer

GOTHAM defines a custom Beamer template to add a text to the footer. It can be set via

```
\setbeamertemplate{frame footer}{My custom footer}
```

Even after redefining (or not) your frame footer template, you can locally remove it with the frame option `\begin{frame}[nofooter]`.

rotateFooter

The default footer from **GOTHAM**, it displays the `shortdate`, `shorttitle` and `shortauthor`. So by filling these fields in your document setup, you will see them appear in your footer:

```
\title[your shorttitle]{Your title}  
\date[shortdate]{\today}  
\author[your shortauthor name]{John DOE}
```

Since, we always need some extra space on some frames that would like to overlay a bit the footer, **GOTHAM**'s footer offers also possibility to be put on side locally using `\begin{frame}[rotateFooter]`, or globally with

```
\gothamset{rotateFooter default=on}
```

If it has set globally, it can be deactivated locally with the frame option

```
\begin{frame}[norotateFooter].
```

GOTHAM has two hook commands, `\gothamRightFiligrane` and `\gothamLeftFiligrane`, that can be redefined to customize what to display in the edgings (a.k.a. filigrane, a.k.a. sidebar). As example, one could do:

```
\renewcommand{\gothamRightFiligrane}{%  
  \rotatebox{90}{gotham right filigrane pattern}  
}
```

Then, to set if it should be displayed or not, globally

```
\gothamset{edging default=on}
```

or locally with the frame option `\begin{frame}[edging]` or `\begin{frame}[noedging]`.

Really wide contents

If you want a really wide content in your frame, you can change the size of your margin (requires `\usepackage{changepage}` in your preamble). You can also suppress the edging (`[noedging]`) and footer (`[nofooter]`) or even more radically footline (`[nofootline]`).

Here is an example combining them:

```
\begin{frame}[noedging,nofootline]{extended frame}
  \begin{adjustwidth}{-2em}{-2em}% 2em extra to the left and 2em for right margin.
    wide content
  \end{adjustwidth}
\end{frame }
```



The frametitle template brought by **GOTHAM** is relatively classic: it supports `\subframetitle` and frame continuation (with `[allowframebreaks]`) through templates that can be tuned. Nevertheless, the frametitle template also includes a hook for your institute logo in the top right corner, leaving the command `\logo{}` free for your extra logos.

So, one can have both logos using:

```
\renewcommand{\gothamInstituteLogoSquare}[1][4ex]{  
  \includegraphics[height=#1]{gotham-logo.pdf}  
}  
\logo{extra LOGO}
```

Numbering and progressbar

GOTHAM theme can numbering your frames in the bottom right corner using different styles. You can also decide to use a progression bar to indicate how much of your presentation remains.

The setup of numbering and progression bar can be performed through:

```
\gothamset{numbering= totalframenumbers, progressbar position=foot}
```

Numbering available options are:

```
none | framenumbers | totalframenumbers | appendixframenumbers | pagenumbers | totalpages
```

Progressbar position available options are:

```
none | head | frametitle | foot | circlehead
```

3. Conclusion

Get the source of this theme and the demo presentation from

`https://gitlab.com/RomainNOEL/beamertheme-gotham`

The theme *itself* is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.



The final slide using the standout style with command:

```
\begin{frame}[standout, plain]{Thank You !}  
  Questions ?  
\end{frame }
```

Et voilà !

Part I

Appendix

Sometimes, it is useful to add slides at the end of your presentation to refer to during audience questions.

The best way to do this is to include `\usepackage{appendixnumberbeamer}` in your preamble and call `\appendix` before your backup slides.

GOTHAM will automatically turn off slide numbering and progress bars for slides in the appendix.