Univ-Eiffel Template

A modern beamer theme based

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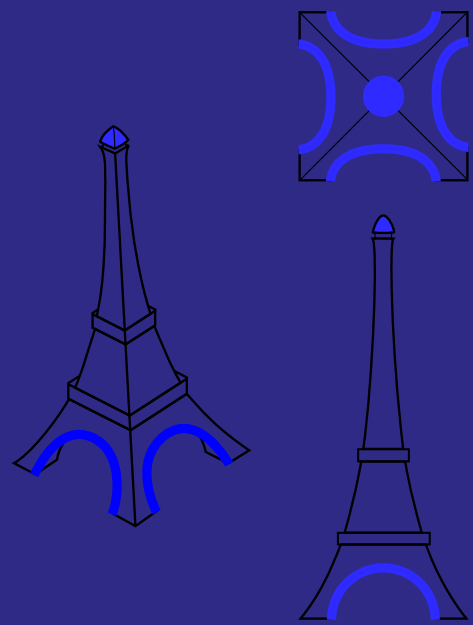
Outline

1. Introduction: Beamer
2. Metropolis Theme
3. UGE Theme
4. Conclusion



Introduction: Beamer

Contents

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1. Introduction: Beamer

2. Metropolis Theme

3. UGE Theme

4. Conclusion

Title page

The Title page is printed using the command:

```
\maketitle
```

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

```
\title{Univ-Eiffel Template}
\subtitle{A modern beamer theme based}
\date{\today}
\author[romain.noel@univ-eiffel.fr]{Romain NOËL}
\institute{Universtity Gustave Eiffel}
\titlegraphic{\hfill\includegraphics[height=1.5cm, draft]{Title_
\logo{\includegraphics[height=1.5cm, draft]{logo.pdf}}
```

Plain Slide

The usual page is printed and defined using the command:

```
begin{frame}
    \frametitle{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

Sections group slides of the same topic

```
\section{Elements}
```

Typography

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```
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

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.

Animation

- This is important
- Now this
- And now this

Animation

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

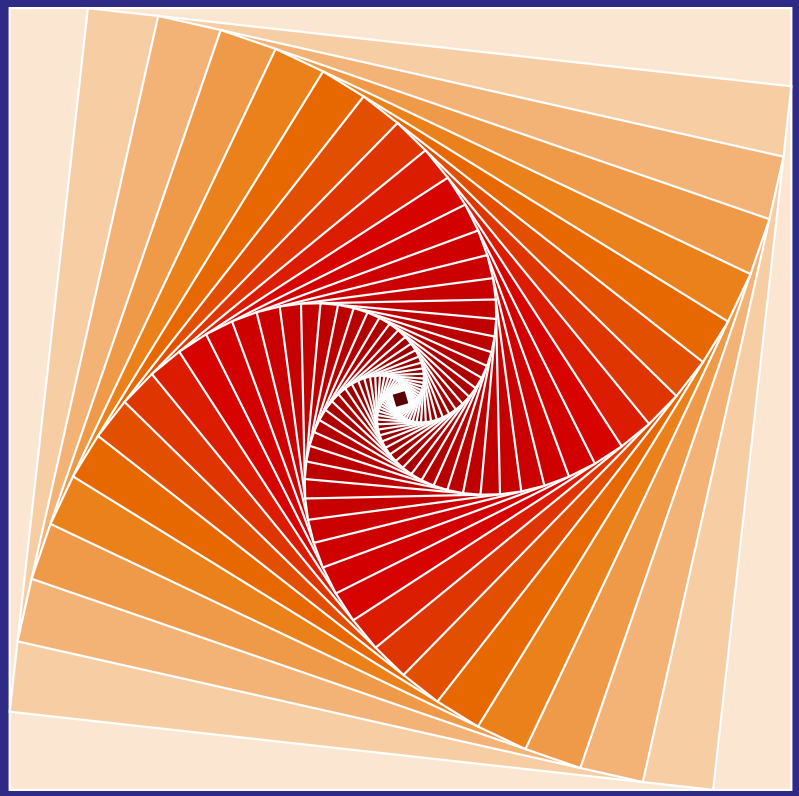

Figure 1: Rotated square with Tikz package from texample.net.

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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

Blocks

Three different block environments are pre-defined.

Default

Block content.

Alert

Block content.

Example

Block content.

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

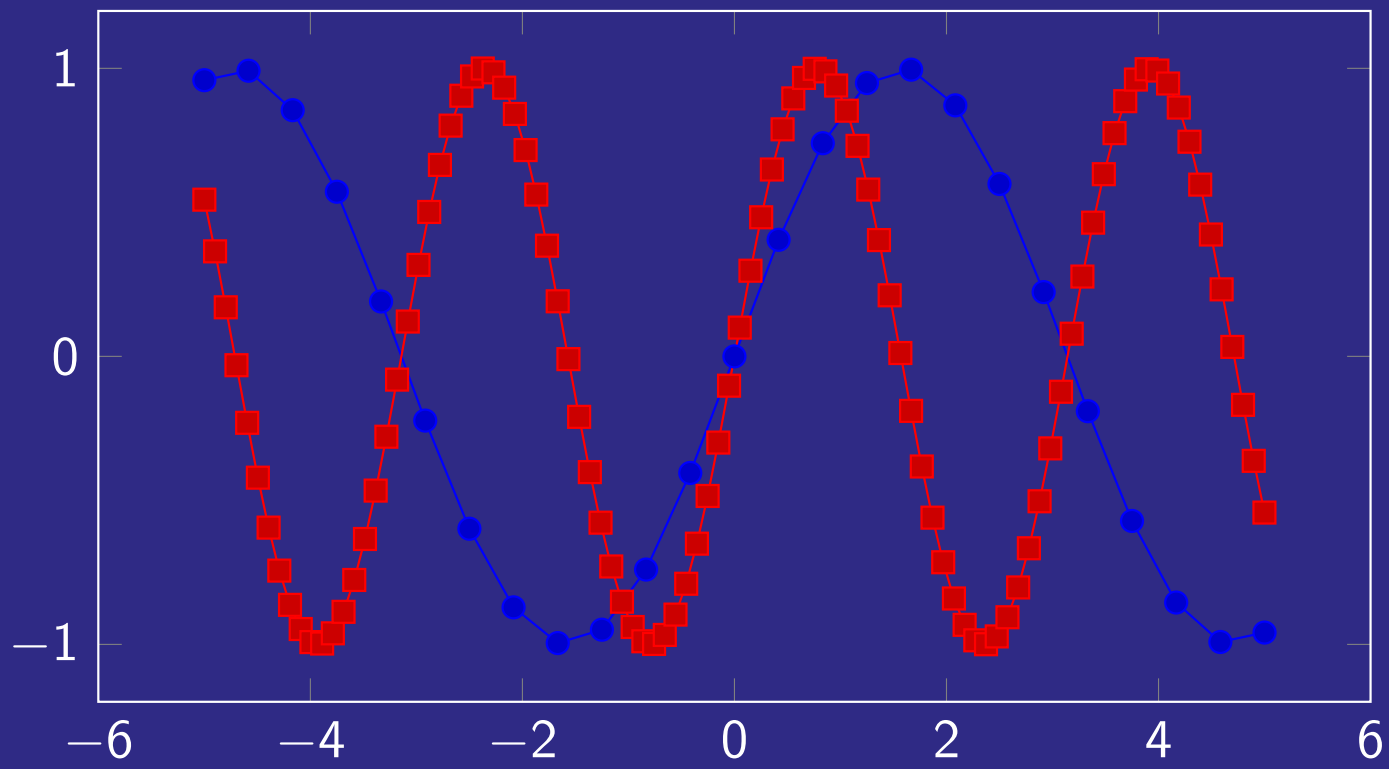

Figure 2: A nice sinus plot with Tikz.

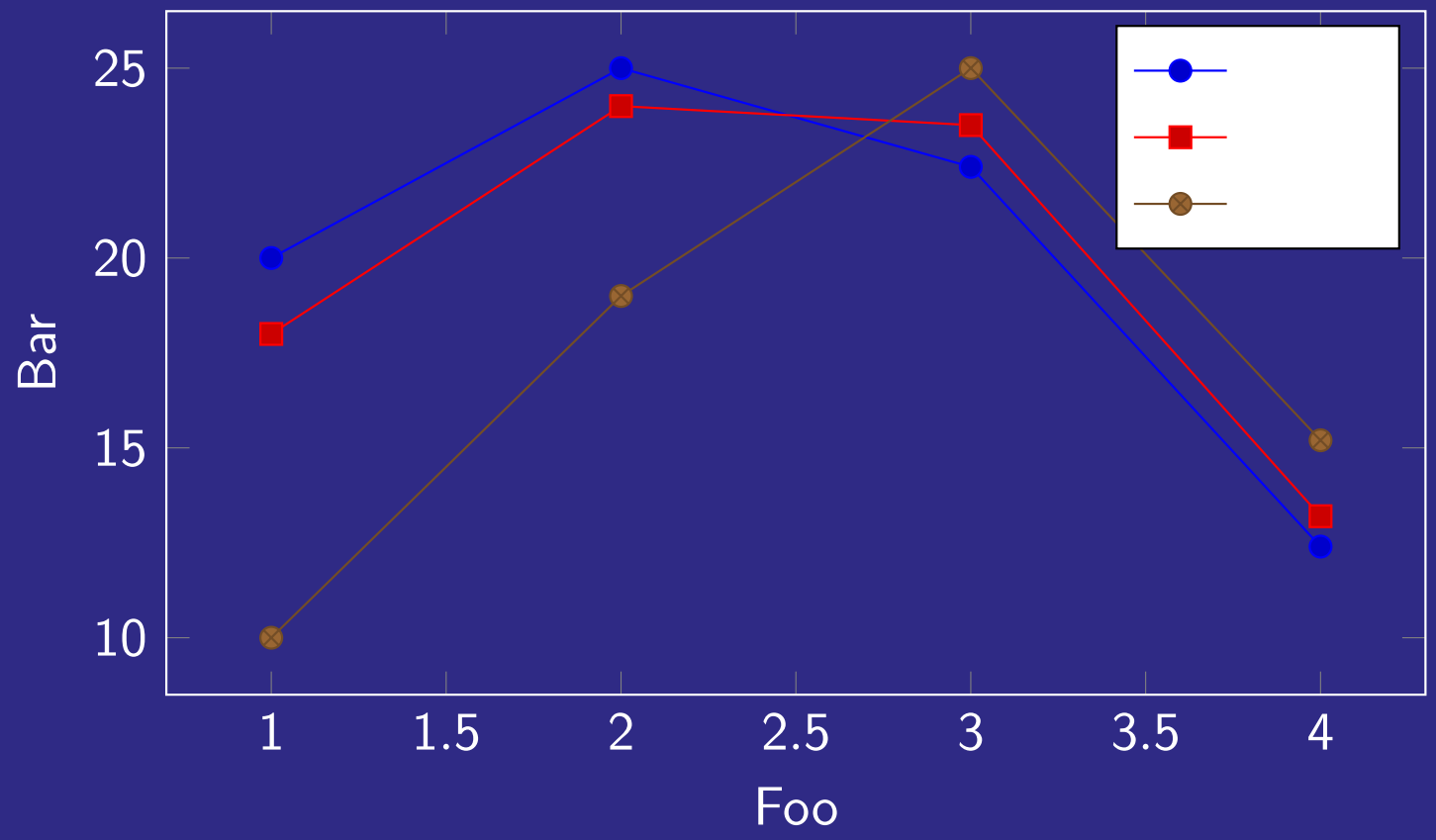

Figure 3: A nice bar chart with Tikz.

Quotes

Veni, Vidi, Vici

from Julius Caesar.

References

Some references to showcase [allowframebreaks] [1, 2, 3, 4, 5]

Metropolis Theme

Contents

1. Introduction: Beamer

2. Metropolis Theme

2.1 Title formats

2.2 Elements

3. UGE Theme

4. Conclusion

The Metropolis theme is a Beamer theme with minimal visual noise inspired by the HSRM Beamer Theme by Benjamin Weiss.

Enable the theme by loading

```
\documentclass{beamer}
\usetheme{metropolis}
```

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

Sections

Sections group slides of the same topic

```
\section{Elements}
```

for which Metropolis provides a nice progress indicator ...

Metropolis Theme

Title formats

Metropolis title formats

Metropolis supports 4 different title formats:

- Regular
- Small caps
- all small caps
- ALL CAPS

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

Small caps

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This frame uses the `smallcaps` title format.

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.

This frame uses the `allsmallcaps` title format.

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.

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

ALL CAPS

This frame uses the `allcaps` title format.

Potential Problems

This title format is not as problematic as the `allsmallcaps` format, but basically suffers from the same deficiencies. So please have a look at the documentation if you want to use it.

Metropolis Theme

Elements

Blocks

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

Default	**Default**
Block content.	Block content.

Alert	**Alert**
Block content.	Block content.

Example	**Example**
Block content.	Block content.

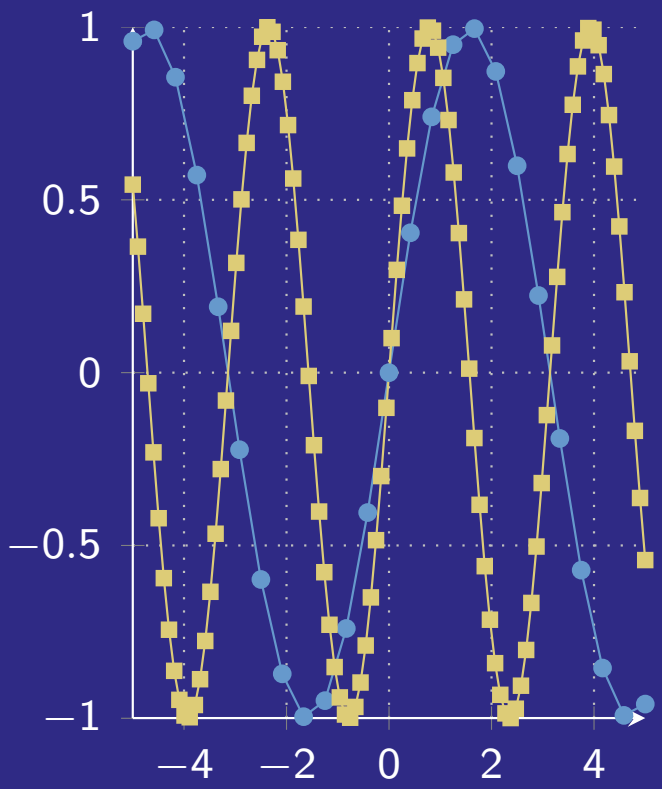

Figure 4: A nice sinus plot with Tikz.

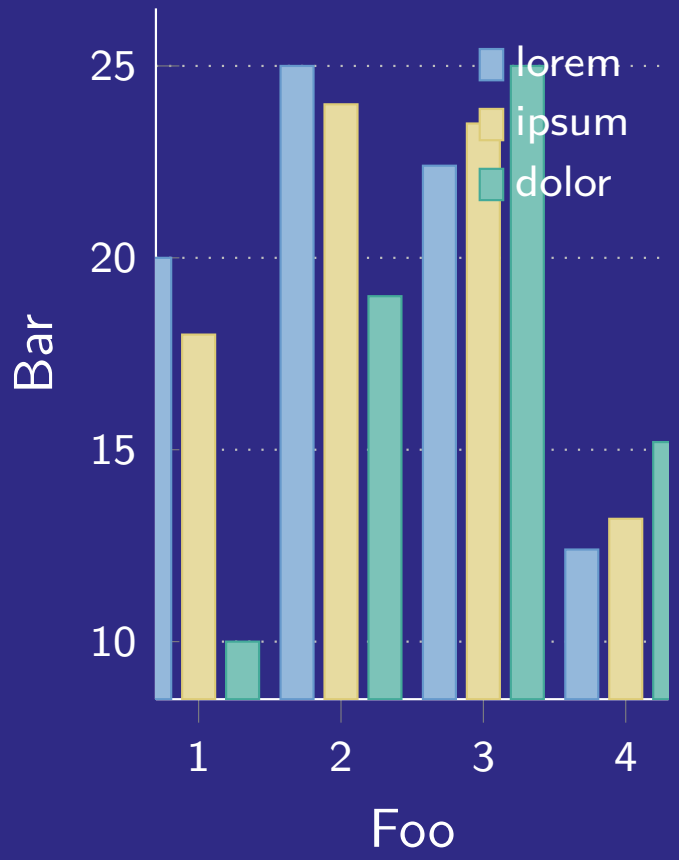

Figure 5: A nice bar chart with Tikz.

Frame footer

Metropolis defines a custom beamer template to add a text to the footer. It can be set via

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

The final slide has a new option style with command:

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

Et voilà !

UGE Theme

Contents

1. Introduction: Beamer

2. Metropolis Theme

3. UGE Theme

4. Conclusion

Why this template ?

This template is here to help UGE Beamer users forgotten by the administration.

The template is available via the following links:

- GitHub: `https://github.com/KirmTwinty/uge-beamer`
- Overleaf: `https://www.overleaf.com/read/vxnjgfmyvccj`

Currently the main authors and maintainers of the template are: Romain NOËL and Thibaud TOULLIER.
We are always looking for any good wills to help us.

Title Page

The UGE template is keeping Beamer primitives such as:

`\institute` for affiliations, or

`\titlegraphic` for logos on the title page, or

`aspectratio=169` or `43` for the beamer class option (with other ratios the layout was not setup).

The background can be changed manually using:

```
{\usebackgroundtemplate{\includegraphics{YourBackground.pdf}}
\begin{frame} \titlepage \end{frame}
}
```

Conserved Metropolis settings

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The UGE style also respect primitives from Metropolis !

So the pages for section can use a progress bar, the frame can numbered and use a progress bar in the footer or the header, the background can be light or dark...

All of these feature are accessible at anytime using:

```
\metroset{
    sectionpage= progressbar,
    numbering=fraction,
    progressbar= foot,
    block= fill,
    background= light,
}
```

Dependencies

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So the UGE theme cannot work without previously loading some dependencies:

```
% Include some custum modifications but quite handy.
\usetheme{BeamerExtra}
% Metropolis Theme.
\usetheme{metropolis}
% Change progress bar size and redefine some colors.
\usetheme{MetropolisBeamerExtra}
```

Normal slide

The default normal slide is including:

- a header (from Metropolis) with the UGE logo
- an extra logo: it can be change via the beamer command `\logo{}`
- an email address in the footer: it can be disable by using in the preamble `\author[]{Your NAME\inst{1} ...}`
- a edging on left side (from UGE graphical charter). This can be turned off locally using `\begin{frame}[noedging]` or globally with `\boolfalse{defaultedging}`. If it is globally disabled it can be turned on locally using `\begin{frame}[edging]`

Extra frame options

DRAFT

- `\begin{frame}[rotateFooter]`
- a watermark on left side (from UGE graphical charter). This can be turned off locally using `\begin{frame}[nowatermark]` or globally with `\boolfalse{defaultWaterMark}`. If it is globally disabled it can be turned on locally using `\begin{frame}[watermark]` .
- `\renewcommand{\UGEwatermark}{otot}`

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Standout vs standin

From Metropolis theme a standout slide is available and was inspired by the UGE visit card Style.

But also in addition the inverted color of the standout, called standin, was introducted. This standin style is used for section slide layout.

Both standout and standin layout can be used on any slide using `\begin{frame}[standout]` and `\begin{frame}[standin]`.

From BeamerExtra the boolean `sectionContent` (default is True) is used to print the content of the section after the section frame. This can be turned of with `\boolfalse{sectionContent}`.

Sections options

- `\boolfalse{sectionContent}`
- `\renewcommand{\secContentName}{toto}`

Lenghts

- `\setlength{footlineOffset}{0pt}`
- `\setlength{footerOffset}{0pt}`

Graphical guidelines not respected

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By doing this UGE template, we also took some liberties about the graphical charter. Thus using the template you are accepting consequences.

Some elements of the graphical charter not respected:

Alert

- fonts because the official ones are not free and not easy to install
- title page since the official one is not convenient

Known Issues

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Alert

- Incompatibilities between `thrm` and `alert` (but this a Beamer issue).

Conclusion

-

Contents

1. Introduction: Beamer

2. Metropolis Theme

3. UGE Theme

4. Conclusion

Summary

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Get the source of Metropolis theme and the demo presentation from

`github.com/matze/mtheme`

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

Questions?

References i

[1] D. Knuth. "Two notes on notation". In: Amer. Math. Monthly 99 (1992), pp. 403–422.

[2] R. Graham, D. Knuth, and O. Patashnik. Concrete mathematics. Reading, MA: Addison-Wesley, 1989.

[3] H. Simpson. "Proof of the Riemann Hypothesis". preprint (2003), available at http://www.math.drofnats.edu/riemann.ps. 2003.

[4] P. Erdős. "A selection of problems and results in combinatorics". In: Recent trends in combinatorics (Matrahaza, 1995). Cambridge: Cambridge Univ. Press, 1995, pp. 1–6.

[5] G. D. Greenwade. "The Comprehensive Tex Archive Network (CTAN)". In: TUGBoat 14.3 (1993), pp. 342–351.

BeamerExtra

Contents

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5. BeamerExtra

6. Things good to know about Beamer (not BeamerExtra)

7. Things brought by good practices in UserPackage

Backup slides

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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 the `appendixnumberbeamer` package in your preamble and call `\appendix` before your backup slides.

Univ-Eiffel Theme will automatically turn off slide numbering and progress bars for slides in the appendix.

Section With Pictures

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As the following command indicates, it is possible to include pictures under a section title:

```
\sectionpic{BeamerExtra}{\PathSO/Logos/UGE.pdf}
```

Section Content

The table of content after the section slide can be turn on or off with the command:

```
\boolfalse{sectionContent} % to turn off the table of content.
```

From example, the table of content will be turn of for the next section (on the following slide).

The name the content slide can also be modified thanks to the command:

```
\renewcommand{\secContentName}{def} % to redefine the title on s
```

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Things good to know about Beamer (not BeamerExtra)

link to hidden slide

Thanks to Beamer, you can create buttons to just to hidden slides that are in the appendices

```
\begin{frame}[label=<originalSlide>, noframenumbering]
\hyperlink{<hiddenSlide>}{\beamerbutton{NameOfButton}}
```

Don't forget to create a button to come back also!

For example : back to previous slide !

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Print extended version – 1

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This slide will always be printed with

`\begin{frame}<handout:1|beamer:1>` or `\begin{frame}<all:1>`

while the following code will never appears

`\begin{frame}<handout:0|beamer:0>` or `\begin{frame}<all:0>`

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Print extended version – 2

This frame will appear with

```
\documentclass[]{beamer}
\begin{frame}<handout:0|beamer:1>
```

BUT the following will not appear

```
% requires handout to appear
\documentclass[10pt]{beamer}
\begin{frame}<handout:1|beamer:0>
```

BY opposition with

```
\documentclass[handout]{beamer}
```

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Things brought by good practices in UserPackage

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5. BeamerExtra

6. Things good to know about Beamer (not BeamerExtra)

7. Things brought by good practices in UserPackage

The interactions beteween ntheorem and beamer has been solved.

Theorem 1. *contenu...*

Proof. contenu... □

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Glossaries

Here is an example of acronym using glossaries: Lattice Boltzmann Method (LBM)

And an example of equation in colors, the Boltzmann equation:

$$\partial_t f(x, \xi, t) + \xi \cdot \partial_x f(x, \xi, t) + g \cdot \partial_\xi f(x, \xi, t) = \Omega(f, f) \tag{2}$$

where f is a variable defined through glossaries.

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Cite in the footnote

Some text that requires a reference[1], using the command[a]

`\footfullciteBeamer{<bibKey>}`

The command to cite in text mode is also possible with

`\fullciteBeamer{<bibKey>}`

and giving Graham, Knuth, and Patashnik, Concrete mathematics. 1989

[1] Knuth, "Two notes on notation". 1992

[a] Please note that this command can be used side-by-side the command footnote.

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Video using media9/multimedia

The last but not least feature present is a macro simplifying the way to include videos in beamer presentation.
It requires to define the OS on which the pdf will be red, thanks to the command:

```
\def\OSvar{linux}
```

Then, the video can be included with the command:

```
\includeVideo[% no space
    width=7cm, height=5cm,]%
Options
{\PathS/video.mp4}% Video
File
{\includegraphics[width,
```

Leading to the following result:

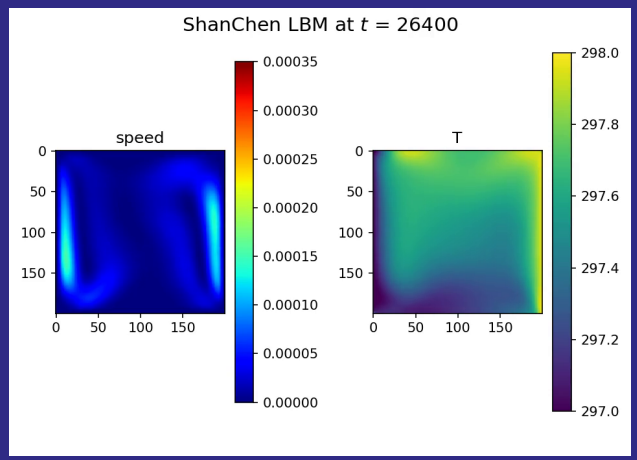

Figure 6: Example of embedded video using `\includeVideo`.

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Warning about `\includeVideo`.

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Warning

Currently the method to include video using `\includeVideo` is no longer work on Windows because `flash player` is no longer supported.

Up to now, this solution is still working on Linux with `okular`, `poppler` and `phonon-backend-vlc` installed.

A possible workaround is to used external player rather than embedded solutions. An example of external inclusion on Windows with `multimedia` package is:

```
\movie[externalviewer]%
   {\includegraphics[width=\textheight]%
      {figures/image.jpg}%
   }{video_beamer.mp4}
```

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Video using animate

Another solution which is use a animation from a stack of image:

```
\animategraphics[autoplay, loop,
    width=\textwidth, controls
]%
{<frame rate>}}{Images/Image_}{0}{99}
```

or for more complex drawing:

```
\begin{animateinline}[<opt>]{<rate>}
   ... typeset material ...
\newframe[<frame rate>]
   ... typeset material ...
\newframe
   ...
\end{animateinline}
```

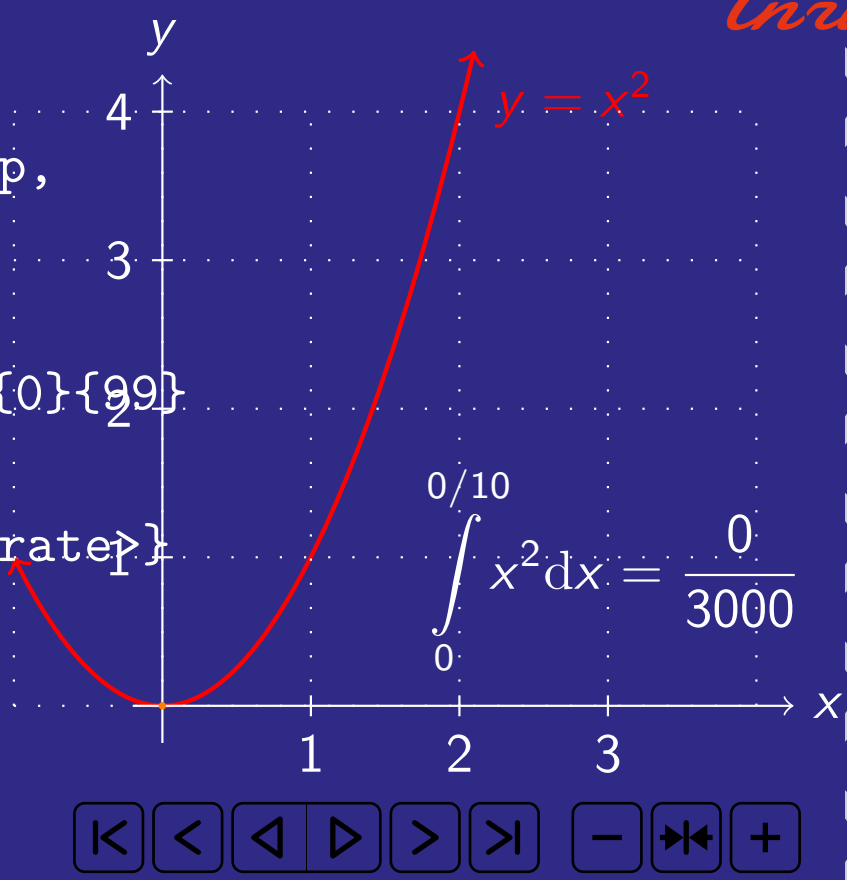

Figure 7: Example of embedded video using `\animategraphics`.

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