



## Beamer2Thesis 2.2, thesis theme for Beamer

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# Introduction

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- Beamer is a  $\text{\LaTeX}$  class that allows you to create presentations
- Beamer2Thesis is a Beamer package that allows you to create a presentation for your thesis
  - with specific dedicated commands
  - it uses TorinoTh, a Beamer Theme

# TorinoTh theme

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- TorinoTh (TorinoThesis) is a theme which is based on Torino and extend it
  - Torino is a pretty theme for Beamer realized by Marco Barisione
  - <http://blog.barisione.org/2007-09/torino-a-pretty-theme-for-latex-beamer/>
- Names are similar because I attend, as him, the Politecnico of Torino, but I want to emphasize the fact that TorinoTh is a theme that can be used only to realize a thesis

# TorinoTh theme

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- The theme consist of:
  - *beamercolorthemetorinoth.sty* defines colors and allows you to choose among three possible options: blue (default), green or red
  - *beamerfontthemetorinoth.sty* defines fonts used
  - *beamerinnerthemetorinoth.sty* defines the title page and items
  - *beamerouterthemetorinoth.sty* defines headers and footers
  - *beamerthemeTorinoTh.sty* include all definitions

# Installation

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Beamer2Thesis is distributed under:

- TeX Live
- MiKTeX

You can use, respectively, the Package Wizard for MiKTeX (*Start/MiKTeX/2.9/*) and the TeX Live Manager for T<sub>E</sub>XLive to search and install the theme. Personally, I suggest you to use T<sub>E</sub>XLive: it works for Linux, Mac and Windows. Actually, the installation under Linux is a bit complicated, but I have realized a short guide that may help you

- [download the guide here](#)

## Installation (II)

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As an alternative, Beamer2Thesis can be downloaded from my personal page as a zip file

- [http://claudiofiandrino.altervista.org/latex\\_projects.html](http://claudiofiandrino.altervista.org/latex_projects.html)

or in the official page:

- <http://cfiandra.github.com/Beamer2Thesis/>

It can be installed with the standard procedure used to install a common package: I suggest you to read a short guide I have written

- [download the guide here](#)

# The guides

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- Next slides will present all features available
- As examples in which different options are applied, is possible to see the guides:
  - beamer2thesis.pdf is the standard english guide which uses standard options
  - beamer2thesis\_ita.pdf is the italian guide with green colors

## How to read the guides

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- All guides show options in general; to have a look for specific configurations, read each guide because in each one is reported its own configuration state
- Every time something is declared to be *default*, it is possible to omit it from the configuration phase
- Every time an option is enabled by setting it with *true*, to disable it you can use *false*; for example:

`secondcandidate=false`

`secondcandidate=true`



# The configuration phase

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- It is the first thing you have to declare in the document
- The general code is `\usetheme[... options ...]{TorinoTh}`
- An example is:

```
\documentclass{beamer}  
\usetheme[language=english,  
          titlepagelogo=logopolito,  
          bullet=circle,  
          pageofpages=of,  
          titleline=true,  
          color=blue  
]{TorinoTh}
```

## Some general options

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- The *pageofpages* option defines the string between the current page number and the total page count
  - the default is *of*
- If the *titleline* option is set to *true*, a horizontal line is drawn below the title
  - the default is *true*; use *false* to disable
- The *notshowauthor* option set to *true* allows you to not show the name of the author in the footer
  - the default is *false*
- The *titlepagelogo* is the name of the principal logo: it must be a .jpg, .pdf, .png picture
  - to include the logo of your University, follow the procedure explained in the following slide

## How insert a new logo

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There are several ways to do it (for people highly capable in  $\text{\LaTeX}$  this is not a problem), but I suggest this method:

- download from my page the .zip file and extract it
- copy your logo into the directory of the package
- install the package in your personal tree following the guide reported in slide 6

## Other options: available bullets

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- The *bullet* option can be used to choose the symbol used in the bullet lists
  - square: a filled square (■) for first and third level items, an empty square (□) for second level items
  - diamond: a filled diamond (◆) for first and third level items, an empty diamond (◇) for second level items
  - triangle: a filled triangle (▶) for first and third level items, an empty triangle (▷) for second level items
  - circle: a filled circle (●) for first and third level items, an empty circle (○) for second level items
  - The default value is circle

# Languages

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- All languages can be supported, but the two main ones are:
  - english
  - italian
- The choice of one of the main languages implies that in the titlepage, date and labels (Supervisor, Candidate, Relatore, Candidato) are shown with the proper language in an automatic way
- To set the italian language, for example, use in the configuration phase: `language=italian`; the name should be the one used by the package babel or by `\setmainfont` with  $\text{\LaTeX}$
- If the language selected is not one of the two main languages, then labels in the titlepage should be introduced by the user (see the example in the next frame)

## Languages (II)

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- Example with spanish language:

```
\usetheme[language=spanish,...]{TorinoTh}  
\setrellabel{Relator Tesis}  
\setcandidatelabel{Candidato}  
\setassistentsupervisorlabel{Co Tesis}  
\setsubject{Tesis}
```

- Commands illustrated are mandatory when *not using* a main language
- If you have already set a language and you change, it may happen that, the first time you compile, this error occurs:

*! Package babel Error: You haven't loaded the option -language-yet*

do not be afraid and compile a second time: it will work!!

# Coding

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To avoid forcing an user to use the utf8x coding, this release fix the bug by introducing the *coding* option; possible choices you can exploit are:

- `coding=utf8x` (default)
- `coding=utf8`
- `coding=latin1`

An important advise: the program does not check which string you put in input; it is your matter select the right coding to satisfy requeriments of your system.

## Second logo

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- If, for some reasons, someone needs a second logo (a thesis performed in another institute for example) an option allows you to put it in the title page
- When *secondlogo* is set to *true*, you have to use the command `\titlepagessecondlogo{name-logo}`: otherwise an error occurs
- As the main logo, the second logo must be a .jpg, .pdf, .png picture and you can insert it following the same rules explained in slide 11



## Third logo

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- Eventually, if you need a third logo you can exploit the possibility of insert it by setting the option *thirdlogo* to *true*
  - the default is *false*
- You have to insert the picture as described for the second logo and use the command `\titlepagethirdlogo{name-logo}` to put the logo in the title page
- Of course, you can use this option if, and only if, the *secondlogo* is set to *true*
- When there are three logos please use, as reference for the dimensions, the picture *logopolito*: in this way they will be aligned

## Second candidate

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- It is possible that there are two candidates: the package manage this fact easily
  - the first candidate is also the author
  - the second candidate can be inserted with the command `\secondcandidate{name-surname}` when the option *secondcandidate* is set to *true*
- Of course, when there are two candidates the label *Candidate* becomes *Candidates* and *Candidato* become *Candidati*
- With two candidates, the footer changes and the author is not shown automatically (the reason is simply: show two authors plus the title is too much long, making the footer too big)

# Supervisor and Assistant Supervisor

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- To insert the supervisor you just have to use the command `\rel{name-surname}`
- There is also the possibility of report the Assistant supervisor:
  - set the option *assistantsupervisor* to *true* (default is *false*)
  - use the command `\assistantsupervisor{name-surname}`
- Labels are set accordingly to the language used

## Second Supervisor and Assistant Supervisor

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There is also the possibility of insert more than one supervisor and assistant supervisor:

- set the options:
  - *secondsupervisor* to true (default is false);
  - *secondassistantsupervisor* to true (default is false);
- name can be inserted thanks to:
  - `\secondsupervisor` command;
  - `\secondassistantsupervisor` command; this one can be exploited just when the *assistantsupervisor* option is set to true;
- as usual, labels are set accordingly to the language used

# Advantages and Disadvantages

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Sometimes it is useful highlight advantages and disadvantages of a given argument: instead of list them by using the standard bullet, there is the possibility of exploit two new environments (*adv* and *disadv*). Usage:

```
\begin{adv}  
\item  
\end{adv}
```

```
\begin{disadv}  
\item  
\end{disadv}
```

In the following slide there is an example.

# Why use Beamer2Thesis

---

## Advantages:

- ✓ Simply to install
- ✓ Easy to customize
- ✓ Possibility to exploit several features

## Disadvantages:

- ✗ Difficulty with long titles
- ✗ If you find some others, please contact me

## Finally: colors

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- There are three possible choices:
  - blue
  - green
  - red
- When the color is chosen setting the option *color* to one of the list above, consequently headers, footers, title page, bullet and highlightings are set accordingly
- For example: `color=green`

# X<sub>3</sub>LaTeX

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Thanks to a suggestion and the precious help of Nicola Tuveri, Beamer2Thesis supports X<sub>3</sub>TeX and X<sub>3</sub>LaTeX automatically. You can choose your favourite font to further customize the presentation. I report some examples:

*Uncomment following lines of code if you use X<sub>3</sub>LaTeX!*



## X<sub>3</sub>LaTeX: code

To realize the examples reported in the previous slide, the code is:

```
\fontspec[Ligatures={Common, Historical}]{Linux Libertine O Italic}
\fontsize{12pt}{18pt}\selectfont This is quite strange!
\fontspec{TeX Gyre Pagella}
\selectfont{Also this is strange}\\
\fontspec{TeX Gyre Pagella}
\selectfont{How to customize fonts?}\par
\fontspec[ SizeFeatures={
{Size={-10}, Font=TeX Gyre Bonum Italic, Color=AA0000},
{Size={10-14}, Color=00AA00},
{Size={14-}, Color=0000FA}}]{TeX Gyre Chorus}
\begin{itemize}
  \item {\LARGE Word}
  \item Word
  \item {\tiny World}
\end{itemize}
```

# Block

---

Beamer allows to use the *block* environment: it is very useful in some applications. For example:

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- ✗ Difficulty with long titles
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## Block: code

---

The previous slide has been realized as:

```
\begin{block}<1->{Why use Beamer2Thesis? Advantages}  
\begin{adv}  
\item Simply to install  
\item Easy to customize  
\item Possibility to exploit several features  
\end{adv}  
\end{block}  
\begin{block}<2->{Why use Beamer2Thesis? Disadvantages}  
\begin{disadv}  
\item Difficulty with long titles  
\item If you find some others, please contact me  
\end{disadv}  
\end{block}
```

## Block: code (II)

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More in general, Beamer provide three *block* environments:

- *block*
- *alertblock*
- *exampleblock*

To have more details, not only on this argument, I suggest to read the [beameruserguide](#).

# Configuration

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- The configuration of the standard theme is:
  - `language=english`
  - `coding=utf8x`
  - `titlepagelogo=name-of-the-logo`
  - `bullet=circle`
  - `pageofpages=of`
  - `titleline=true`
  - `color=blue`
  - `secondcandidate=false`
  - `secondlogo=false`
- Most of them, actually everyone except the *titlepagelogo*, can be omitted if there are no modifications

## Behavior of alerts

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Each color theme requires different colors to highlight words. To insert alerts by using the *itemize* environment, you can exploit:

```
\begin{itemize}
\item<+--| alert@+> Apple
\item<+--| alert@+> Peach
\end{itemize}
```

For example:

- Apple

## Behavior of alerts

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\end{itemize}
```

For example:

- Apple
- Peach



## Another way to highlight words

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If you want to highlight your text out of the environment *itemize*, Beamer2Thesis offers you the following possibilities:

- the standard command `\alert{text}`: it simply highlights your `text`
- the command `\highlight{text}`: it highlights your `text` setting it in italic
- the command `\highlightbf{text}`: it highlights your `text` setting it in bold

Of course, the color used, is set accordingly to your choice in the configuration phase.

## Highlighting formulas

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- The package `hf-tikz` allows to highlight formulas and formula parts in Beamer with overlay specifications
- The adaptation of colors to the theme could be done in this way:

```
\usepackage[beamer,customcolors]{hf-tikz}
\hfsetfillcolor{alerted text.fg!10}
\hfsetbordercolor{alerted text.fg}
```
- *Two compilation runs* are required to get the right result!
- Read the package documentation to find more options; an example will be provided in the next frame.

## Highlighting formulas (II)

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- Example:

$$x + \boxed{y} = 10$$

## Highlighting formulas (II)

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- Example:

$$x + y = 10$$

- Code:

```
\[\tikzmarkin<2->{a}x+  
  \tikzmarkin<1>{b}y\tikzmarkend{b}  
=10\tikzmarkend{a}\]
```

# The output

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The pdf generated, has automatically, some properties:

- the title
- the name of the author
- the subject:
  - Thesis Presentation by using the english language
  - Presentazione Tesi di Laurea by using the italian language

This is possible thanks to the available options of hyperref. To create references in the text, use:

- `\label{name-reference}` in the starting point
- `\ref{name-reference}` in the point you want to show the reference
- `\href{url}{name-url}` to specify web addresses

# Suggestions

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- To realize a frame it is possible use the environment *frame* with top (t), center (c) or bottom (b) alignment: I suggest you to use the top alignment; this is the basic code:

```
\begin{frame}[t]{title-of-the-frame}  
text  
\end{frame}
```

- To make things easier, it has been introduced a new environment which is able to have the top property property intrinsic:

```
\begin{tframe}{title-of-the-frame}  
text  
\end{tframe}
```

## Suggestions (II)

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- To realize the titlepage with all options, it has been introduced the command `\titlepageframe`
  - Of course, it is also possible to use the *standard* approach

```
\begin{frame}[plain]
\titlepage
\end{frame}
```
  - In this case **do not** provide a title for the frame
- If you have to insert some code using *verbatim* or *listings* **do not exploit** *tframe* environment, but:

```
\begin{frame}[t,fragile]{title-of-the-frame}
\verb!code!
\end{frame}
```

## Suggestions (III)

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- If the title does not fit in the footer box, it is possible to exploit the so called *shorttitle*; an example:

```
\title[short title]{Long title of the thesis}
```

In this way the long title is just placed in the titlepage.

- In case there are more than two supervisors or assistantsupervisors, I suggest you to insert them through commands reported in [19](#) and separate names thanks to a comma.



## On Facebook

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The relevance of Facebook is known to everybody: due to this reason, you can find:

- the group [Beamer2Thesis](#)
- the page [Beamer2Thesis](#)

In this way you can post your comments, hints, suggestion and questions in more familiar way. Moreover, you can find further examples.

# History

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Here are shortly reported the main features of the releases:

- basic version (2011-01-17):
  - colors, second logo, second candidate, tframe environment, titleline, bullets, languages, separator string for slide numeration;
- release 2.0:
  - third logo, assistant supervisor, new ways to highlight, new command for the titlepage, new environments *adv* and *disadv*,  $X_{\exists T E X}$  and  $X_{\exists L A T E X}$  support, blocks;
- release 2.1:
  - coding option, second supervisor, second assistantsupervisor;
- release 2.2:
  - language, short title, highlighting formulas.

# Thanks

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