The Celestia theme for Beamer

Contents

① INTRODUCTION

The Celestia theme is a modern, elegant Beamer theme designed to produce professional and visually appealing presentations. It offers extensive customization while remaining straightforward to use.

Celestia ships with 22 color palettes, 9 frame title styles, 11 footer styles, 10 block styles, and 12 preset styles that combine these elements into cohesive looks.

1.1 Basic usage

```latex
\documentclass{beamer}
\usetheme{Celestia}

\title{My presentation}
\author{John Doe}
\date{\today}

\begin{document}
\maketitle
\end{document}
```

1.2 Compilation

The Celestia theme is designed to be compiled with `lualatex` or `xelatex` for full font management through `fontspec`. A `pdflatex` compatibility mode is also available.

② LANGUAGE

2.1 The `language` option

Sets the presentation language, which is automatically passed to the `babel` package. In `french` mode, the names of mathematical environments (theorem, definition, etc.) and code listing captions are automatically translated.

Default: `english`

```latex
\usetheme[language=french]{Celestia}
```

③ PRESET STYLES

3.1 The `style` option

The theme provides preset styles that automatically configure several options (palette, frametitle, footerstyle, block) for a cohesive look.

Available styles

- **minimal**: palette sapphire, frametitle plain, footerstyle minimalist, block soft;
- **signature**: palette petrol, frametitle cosmic, footerstyle cosmic, block fullbar;
- **studio**: palette oxford, frametitle elegant, footerstyle info, block sober, emphasis accent;
- **academic**: palette horizon, frametitle elegant, footerstyle classic, block native, titlealign center;
- **modern**: palette nordic, frametitle subtle, footerstyle info, block sober;
- **design**: palette imperial, frametitle clean, footerstyle badge, block bar;
- **executive**: palette palatial, frametitle leftbar, footerstyle fullbar, block fullbar;
- **sober**: palette terracotta, frametitle gradient, footerstyle info, block sober;
- **simple**: palette steel, frametitle plain, footerstyle minimalist, block noback;
- **editorial**: palette manuscript, frametitle line, footerstyle ruled, block sober;
- **lumiere**: palette lumiere, frametitle plainrule, footerstyle framed, block soft;
- **chalk**: palette chalk, frametitle subtle, footerstyle boxedruled, block bar, barblockopacity 0.15.

```
1   \usetheme[style=academic]{Celestia}
```

Individual options can be appended after the style for further customization:

```
1   \usetheme[style=modern, palette=copper]{Celestia}
```

④ COLOR PALETTES

4.1 Built-in palettes

The theme ships with 22 harmonious palettes. Each palette automatically defines six colors: primary (`main`), accent, standard block (`blockcolor`), example (`examplecolor`), alert (`alertcolor`), and background (`background`).

4.1.1 The `palette` option

Default: `lumiere`

Available palettes

- **chalk**: dark text on a warm beige background, chalkboard style;
- **copper**: gray-blue tones with copper accents;
- **dusk**: light text on a dark teal background;
- **horizon**: deep oceanic blues;
- **imperial**: midnight blue with burgundy accents;
- **lumiere**: deep blue-gray with pink accents (default);
- **manuscript**: indigo and violet tones, manuscript feel;
- **midnight**: light text on a deep indigo background;
- **mineral**: dark blue with amber accents;
- **nordic**: icy Scandinavian blues;
- **obsidian**: light text on a dark background;

- **oxford**: classic academic blues;
- **palatial**: midnight blue with gold accents;
- **petrol**: petrol greens with ochre accents;
- **prestige**: deep blue-gray with raspberry accents;
- **royal**: dark, elegant teal tones;
- **sakura**: soft grays with pink accents;
- **sapphire**: deep sapphire blues;
- **steel**: steel blues with muted accents;
- **terracotta**: warm terracotta tones;
- **velours**: light text on a deep plum background;
- **velvet**: dark plum with gold accents.

```
\usetheme[palette=petrol]{Celestia}
```

Note: the **obsidian**, **midnight**, **dusk** and **velours** palettes use a dark background. They work well for presentations projected in dimly lit rooms.

4.2 Custom palette

4.2.1 The `custompalette` option

Defines a fully custom palette by specifying six hex color codes (without the #) in order: primary, accent, standard block, example block, alert block, background.

```
\usetheme[
    custompalette={2C3E50,E74C3C,3498DB,27AE60,E67E22,ECF0F1}
]{Celestia}
```

4.3 Individual colors

For finer control, each color can be overridden individually (hex codes without the #):

- **maincolor**: primary color for text and headings;
- **accentcolor**: secondary color for decorative elements;
- **backgroundcolor**: slide background color;
- **codebackgroundcolor**: background color for code blocks;
- **blockcolor**: color for standard blocks (theorem, property, etc.);
- **examplecolor**: color for example blocks (definition, example, etc.);
- **alertcolor**: color for alert blocks (remark, activity, etc.).

```
\usetheme[
    maincolor=045549,
    accentcolor=E63946,
    backgroundcolor=FAFAFA,
    blockcolor=1A3B52
]{Celestia}
```

4.4 The `unicolor` option

Enables a monochromatic mode in which the accent color is used for all elements (blocks, items, decorations).

```
1   \usetheme[unicolor]{Celestia}
```

4.5 The `emphasis` and `decoration` options

These two options control the colors used for emphasis elements (headings, items) and decorations (rules, ornaments), respectively.

4.5.1 The `emphasis` option

Default: `main`

- **main**: headings and items use the primary color. The decoration color is then automatically set to `accent`;
- **accent**: headings and items use the accent color.

4.5.2 The `decoration` option

Default: follows the value of `emphasis`

Allows the decoration color to be set independently (`main` or `accent`).

```
1   \usetheme[emphasis=accent, decoration=main]{Celestia}
```

⑤ FONTS

5.1 Default fonts

- **Serif font (main):** Literata (fallback: TeX Gyre Pagella);
- **Sans-serif font:** Inter with light weights (fallback: TeX Gyre Heros);
- **Monospaced font:** IBM Plex Mono (fallback: TeX Gyre Cursor).

5.2 Font customization

- **serifface**: main serif font (`literata` by default);
- **seriffaceoptions**: `fontspec` options for the serif font;
- **sansface**: sans-serif font (`inter` by default);
- **sansfaceoptions**: options for the sans-serif font (empty by default; the theme automatically applies `Scale=0.88` and a light weight depending on the engine);
- **monoface**: monospaced font for code (`plex-mono` by default);
- **monofaceoptions**: `fontspec` options for the mono font.

```
1   \usetheme[
2       serifface=EB Garamond,
3       seriffaceoptions={Scale=1.1},
```

```
4        sansface=Montserrat,
5        monoface=Fira Code
6    ]{Celestia}
```

To disable serif font loading entirely: `serifface=none`.

5.3 The `allserif` option

Uses the serif main font as the default body font and activates Beamer's `serif` font theme.

```
1    \usetheme[allserif]{Celestia}
```

5.4 The `semibold` option

Enables semibold (weight 600) as the bold series for the main and sans-serif fonts. With `pdflatex`, this uses `\DeclareFontSeriesDefault`. With LuaLaTeX/XeLaTeX, it automatically adds `BoldFeatures={Weight=600}` to the `fontspec` options.

Default: `true`

```
1    \usetheme[semibold=false]{Celestia}
```

5.5 The `light` option

Uses lighter font weights for the body text (weight 300 for the sans-serif font with LuaLaTeX/XeLaTeX, or the `light` option for Inter with pdflatex). Also applies a lighter weight to the monospaced font.

Default: `true`

```
1    \usetheme[light=false]{Celestia}
```

5.6 Math font

5.6.1 The *mathface* option

Sets the math font. With LuaLaTeX/XeLaTeX, the built-in presets use `unicode-math`. With `pdflatex`, legacy packages are loaded instead.

Default: `iwona`

Built-in presets

- **iwona**: Iwona math font (default);
- **kurier**: Kurier math font;
- **pagella**: TeX Gyre Pagella Math (`mathpazo` with pdflatex);
- **termes**: TeX Gyre Termes Math (`newtxmath` with pdflatex);
- **stix**: STIX Two Math (`stix2` with pdflatex);
- **libertinus**: Libertinus Math (`libertinust1math` with pdflatex);
- **fira**: Fira Math;

- **noto**: Noto Sans Math;
- **mtpro2**: MathTime Professional 2 (loaded via the `mtpro2` package with both engines).

Any other value is passed directly to `\setmathfont` (LuaLaTeX/XeLaTeX) or `\RequirePackage` (pdflatex).

```
1   \usetheme[mathface=pagella]{Celestia}
```

5.6.2 The `mathfaceoptions` option

Additional options passed to `\setmathfont` (LuaLaTeX/XeLaTeX only).

```
1   \usetheme[mathface=pagella, mathfaceoptions={Scale=1.05}]{Celestia}
```

⑥ LAYOUT

6.1 Margins

6.1.1 The `margin` option

Sets the left and right margin of the slide content area.

Default: `2em`

```
1   \usetheme[margin=1.5em]{Celestia}
```

6.2 Frame title style

6.2.1 The `frametitle` option

Sets the visual style of each slide's frame title.

Default: `plain`

Available values

- **plain**: simple left-aligned title with no decoration (default);
- **cosmic**: title with a horizontal decorative rule and diamond ornament;
- **line**: title with a full-width horizontal rule;
- **gradient**: subtle horizontal gradient beneath the title;
- **clean**: colored vertical sidebar to the left of the title;
- **elegant**: title on a full-width colored background;
- **subtle**: title with a short underline rule;
- **plainrule**: title with a gradient separator rule;
- **leftbar**: thick vertical bar spanning the full height of the title.

```
1   \usetheme[frametitle=elegant]{Celestia}
```

Every style supports a subtitle via \framesubtitle{...}.

6.3 Title page

6.3.1 The `titlealign` option

Sets the alignment of the title page content.

Default: `left`

Available values: `left`, `center`, `right`

```
1   \usetheme[titlealign=center]{Celestia}
```

6.3.2 The `titlebackground` option

Specifies a background image (displayed at reduced opacity) for the title page.

```
1   \usetheme[titlebackground=images/background.jpg]{Celestia}
```

6.3.3 The `\subject` command

Defines a subject line displayed above the main title on the title page and embedded in the PDF metadata.

```
1   \subject{Computer Science}
2   \title{Introduction to Graph Theory}
```

⑦ HEADING STYLE

7.1 Font family

7.1.1 The `headstyle` option

Sets the font family used for headings.

Default: `sffamily`

Available values: `sffamily` (sans-serif), `rmfamily` (serif)

7.2 Font shape

7.2.1 The `headshape` option

Sets the font shape for headings.

Default: `normal`

Available values: `normal`, `sc` (small caps), `it` (italic)

7.3 Font weight

7.3.1 The `headweight` option

Sets the font weight for headings.

Default: `bfseries`

Available values: `bfseries` (bold), `mdseries` (medium)

7.4 Block title weight

7.4.1 The `blocktitleweight` option

Sets the font weight for tcolorbox block titles.

Default: `bfseries`

Available values: `bfseries` (bold), `mdseries` (medium)

7.5 Heading sizes

The theme allows each heading element to be sized independently. In addition to the standard LaTeX sizes, Celestia defines intermediate sizes for finer control:

- **titlesize**: main title on the title page (`LargeLARGE` by default);
- **frametitlesize**: frame title (`normalsize` by default);
- **sectiontitlesize**: section title (`LARGE` by default);
- **subtitlesize**: subtitle (`Large` by default);
- **footertextsize**: footer text (`tiny` by default).

Available sizes

The standard LaTeX sizes are available: `tiny`, `scriptsize`, `footnotesize`, `small`, `normalsize`, `large`, `Large`, `LARGE`, `huge`, `Huge`.

Celestia adds an intermediate size between each consecutive pair:

- `tinyscriptsize` (between tiny and scriptsize);
- `scriptsizefootnotesize` (between scriptsize and footnotesize);
- `footnotesizesmall` (between footnotesize and small);
- `smallnormalsize` (between small and normalsize);
- `normalsizelarge` (between normalsize and large);
- `largeLarge` (between large and Large);
- `LargeLARGE` (between Large and LARGE);
- `LARGEhuge` (between LARGE and huge);
- `hugeHuge` (between huge and Huge).

```
1  \usetheme[
2      titlesize=Huge,
3      frametitlesize=Large,
4      sectiontitlesize=huge,
5      footertextsize=scriptsize
6  ]{Celestia}
```

7.6 Full example

```
1  \usetheme[
2      headstyle=rmfamily,
3      headshape=sc,
4      headweight=mdseries,
5      blocktitleweight=bfseries
6  ]{Celestia}
```

⑧ FOOTER

8.1 The footerstyle option

Sets the footer style (hidden on the title slide).

Default: prestige

Available values

- **prestige**: three-column layout with short dash separators (default);
- **cosmic**: three-column layout with author, title, and slide number separated by diamond ornaments;
- **info**: author and title on the left, slide number on the right, with an optional progress bar;
- **minimalist**: discreet slide number in the bottom-right corner;
- **badge**: slide number in a colored badge on the bottom right, author and title on the bottom left;
- **classic**: bar divided into four alternating colored zones (author / title / date / slide number);
- **fullbar**: similar to classic but entirely on a colored background with circular separators;
- **ruled**: three-column layout with horizontal rules between entries;
- **framed**: three-column layout with a top horizontal rule;
- **boxed**: three-column layout with rounded boxes around each entry;
- **boxedruled**: combination of boxed entries and horizontal rules.

```
1  \usetheme[footerstyle=prestige]{Celestia}
```

8.2 The progressbar option

Adds a progress bar at the bottom of each slide. For the info and minimalist styles, the bar is natively integrated into the footer. For other styles, it is overlaid at the bottom of the page.

Default: false

```
1  \usetheme[progressbar]{Celestia}
```

8.3 The shownavigation option

Displays the Beamer navigation symbols (disabled by default).

```
1  \usetheme[shownavigation]{Celestia}
```

⑨ TABLE OF CONTENTS

9.1 The `compacttoc` option

Reduces the vertical spacing between entries in the table of contents.

```
1  \usetheme[compacttoc]{Celestia}
```

9.2 The `twocoltoc` option

Automatically distributes sections across two columns.

```
1  \usetheme[twocoltoc]{Celestia}
```

9.3 The `\twocolumntoc` command

Provides manual control over the two-column distribution by specifying section ranges.

```
1  \twocolumntoc[1][5][10]
```

This example places sections 1 through 4 in the left column and sections 5 through 10 in the right column.

⑩ BLOCKS

10.1 Block types

Three Beamer block types are available, each associated with a semantic color:

```
1   \begin{block}{Block title}
2       Standard block content (blockcolor)
3   \end{block}
4
5   \begin{exampleblock}{Example}
6       Example block content (examplecolor)
7   \end{exampleblock}
8
9   \begin{alertblock}{Warning}
10      Alert block content (alertcolor)
11  \end{alertblock}
```

10.2 Block style

10.2.1 The **block** option

Sets the visual style of blocks.

Default: `fullbar`

tcolorbox styles

- **fullbar**: colored sidebar with a separate tinted title area and drop shadow (default);
- **bar**: colored sidebar with the title integrated into the content area;
- **sober**: lightly tinted background with no border, colored title;
- **soft**: uniformly tinted background, soft look;
- **shaded**: stronger tinted background with a colored title banner;
- **noback**: no background, minimalist;
- **plain**: blocks with a classic border and background.

Native Beamer styles

- **native**: native Beamer rounded blocks with a colored background;
- **native-shadow**: native Beamer rounded blocks with a drop shadow;
- **native-default**: default Beamer blocks (rectangular).

```
1   \usetheme[block=sober]{Celestia}
```

10.2.2 Block opacity options

Controls the intensity of the tinted backgrounds for certain block styles (decimal value between 0 and 1):

- **shadedblockopacity**: opacity for the shaded style (`0.30` by default);
- **soberblockopacity**: opacity for the sober style (`0.18` by default);
- **softblockopacity**: opacity for the soft style (`0.18` by default);
- **barblockopacity**: opacity for the bar style (`0.05` by default).

```
1   \usetheme[block=sober, soberblockopacity=0.25]{Celestia}
```

(11) SPECIAL SLIDES

11.1 Standout slides

The standout frame option turns a slide into a highlight page with an inverted colored background. This feature requires the standout option to be enabled in the theme options.

```
1   \usetheme[standout]{Celestia}
2
3   \begin{frame}[standout]
4       Key takeaway
5
6       \vspace{1em}
7       \large --- Quote
8   \end{frame}
```

11.2 Section slides

11.2.1 The `sectionpage` and `sectionnumber` options

Controls the automatic display of section divider slides, which present the section title with a decorative ornament.

Defaults: `sectionpage=true`, `sectionnumber=false`

- **sectionpage**: enables or disables automatic section divider slides;
- **sectionnumber**: displays the section number inside a decorative circle.

```
1  \usetheme[sectionpage=false]{Celestia}
2  \usetheme[sectionnumber]{Celestia}
```

To disable section slides manually within the document:

```
1  \AtBeginSection{}
```

(12) SOURCE CODE

12.1 Code handler

12.1.1 The `codehandler` option

Sets the syntax highlighting backend.

Default: `listings`

Available values: `listings` (the `listings` package) or `minted` (the `minted` package, requires Pygments)

```
1  \usetheme[codehandler=minted]{Celestia}
```

In `french` mode, code listing captions are automatically relabeled to Programme .

12.2 Code block style

12.2.1 The `codestyle` option

Sets the visual style of code blocks.

Default: `bar`

Available values

- **bar**: colored sidebar on the left (default);
- **frame**: full border with a drop shadow;
- **macos**: macOS-style window chrome with three colored dots;
- **box**: box with a colored top bar.

```
1  \usetheme[codestyle=macos]{Celestia}
```

12.3 Code framing

12.3.1 The *codebox* and *nocodeframe* options

Controls the `tcolorbox` wrapping around code blocks.

Default: `codebox=true` (wrapping enabled)

- **codebox**: enables the code wrapper (on by default; use `codebox=false` to disable);
- **nocodeframe**: keeps the `tcolorbox` wrapper but removes the visible border.

```
1  \usetheme[codebox=false]{Celestia}
```

12.4 Usage with `listings`

```
1  \begin{lstlisting}[style=python]
2  def fibonacci(n):
3      if n <= 1:
4          return n
5      return fibonacci(n-1) + fibonacci(n-2)
6  \end{lstlisting}
```

A `python` style is provided out of the box with keyword and built-in function highlighting.

(13) TEXT FORMATTING

13.1 Special commands

- \texttt{text}: monospaced font at a reduced size;
- \alert{text}: text in the alert color;
- \mathterm{x}: formats a mathematical term (bold, block color);
- \mathdef{x}: formats a mathematical definition (italic, example color).

13.2 The `boldurl` option

Renders URLs in bold within hyperlinks.

```
1  \usetheme[boldurl]{Celestia}
```

(14) MATH ENVIRONMENTS

The theme defines theorem-like environments with a streamlined syntax built on `tcolorbox`. Each environment accepts key-value options in brackets: `title` for a subtitle and `label` for cross-referencing.

14.1 Block-type environments

- `theorem`: theorem;
- `lemma`: lemma;
- `proposition`: proposition;
- `corollary`: corollary;
- `property` / `properties`: property / properties.

14.2 Example-type environments

- `definition` / `definitions`: definition / definitions;
- `example` / `examples`: example / examples.

14.3 Alert-type environments

- `remark` / `remarks`: remark / remarks;
- `method`: method;
- `activity` / `activities`: activity / activities;
- `application` / `applications`: application / applications.

14.4 Syntax

```
\begin{theorem}[title=Pythagorean theorem, label=th:pyth]
    In a right triangle, $a^2 + b^2 = c^2$.
\end{theorem}
```

This key-value syntax applies to all `tcolorbox`-based block styles (the default). When using `block=native`, `block=native-shadow` or `block=native-default`, the environments use the standard Beamer syntax instead:

```
\begin{theorem}{Pythagorean theorem}
    In a right triangle, $a^2 + b^2 = c^2$.
\end{theorem}
```

Warning: mixing up the two syntaxes will cause a compilation error. Use `[title=...]` with tcolorbox blocks and `{Title}` with native blocks.

Each environment also has a starred (unnumbered) variant:

```
\begin{definition*}[title=Prime number]
    A prime number is a natural number that has exactly
    two distinct divisors.
\end{definition*}
```

Additional `tcolorbox` options can be passed directly:

```
\begin{remark}[title=Important, colback=red!5]
    Content with local customization.
\end{remark}
```

15 THE QUIZ ENVIRONMENT

The `quiz` environment creates multiple-choice questions with the correct answer revealed on the second overlay.

```
1  \begin{quiz}
2      \item Answer A
3      \item Answer B
4      \correct{Answer C (correct answer)}
5      \item Answer D
6  \end{quiz}
```

The `\correct{...}` command marks the correct answer, which is highlighted in the alert color on <2>.

16 BIBLIOGRAPHY

The theme provides automatic support for `biblatex` and `natbib`. Bibliography entry colors are configured to match the active palette.

```
1  \usepackage[backend=biber]{biblatex}
2  \addbibresource{references.bib}
3
4  \begin{frame}{References}
5      \printbibliography
6  \end{frame}
```

17 OPTIONS REFERENCE

17.1 Boolean options

Option	Default	Description
allserif	false	Use serif font throughout
semibold	true	Use semibold (weight 600) as the bold series
light	true	Use light font weights for body text
unicolor	false	Monochromatic mode
standout	false	Enable standout frames
compacttoc	false	Compact table of contents
twocoltoc	false	Two-column table of contents
codebox	true	Wrap code blocks in tcolorbox
nocodeframe	false	Keep tcolorbox wrapper, hide border
shownavigation	false	Show Beamer navigation symbols
boldurl	false	Render URLs in bold
sectionpage	true	Automatic section divider slides
sectionnumber	false	Section number in a decorative circle
progressbar	false	Footer progress bar

17.2 Key-value options

Option	Default	Description
language	english	Document language
palette	lumiere	Color palette
style	—	Preset style
block	fullbar	Block style
frametitle	plain	Frame title style
footerstyle	prestige	Footer style
codestyle	bar	Code block style
codehandler	listings	Syntax highlighting backend
titlealign	left	Title page alignment
emphasis	main	Emphasis color
decoration	(follows emphasis)	Decoration color
margin	2em	Slide margins
serifface	literata	Serif font
sansface	inter	Sans-serif font
monoface	plex-mono	Monospaced font
seriffaceoptions	(empty)	Serif font options
sansfaceoptions	(empty)	Sans-serif font options
monofaceoptions	(empty)	Monospaced font options
mathface	iwona	Math font
mathfaceoptions	(empty)	Math font options
custompalette	(empty)	Custom palette (6 hex colors)
titlebackground	(empty)	Title page background image
shadedblockopacity	0.30	Opacity for the shaded style
soberblockopacity	0.18	Opacity for the sober style
softblockopacity	0.18	Opacity for the soft style
barblockopacity	0.05	Opacity for the bar style
codebackgroundcolor	(empty)	Code background color
headstyle	sffamily	Heading font family
headshape	normal	Heading font shape
headweight	bfseries	Heading font weight
blocktitleweight	bfseries	Block title font weight
titlesize	LargeLARGE	Main title size
frametitlesize	normalsize	Frame title size
sectiontitlesize	LARGE	Section title size
subtitlesize	Large	Subtitle size
footertextsize	tiny	Footer text size

(18) AVAILABLE COLOR NAMES

The theme exposes the following color names for use anywhere in the document:

- main: primary color;
- accent: accent color;

- background: background color;
- emphasis: emphasis color (depends on the emphasis option);
- decoration: decoration color (depends on the decoration option);
- blockcolor: standard block color;
- examplecolor: example block color;
- alertcolor: alert block color;
- codebackground: code background color.

```
\textcolor{accent}{Text in the accent color}
\colorlet{myCustom}{blockcolor!50!background}
```