Quarto Clean Theme

A Minimalistic Theme for Quarto + Typst + Touying

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December 2, 2024

Section Slide as Header Level 1

Slide Title as Header Level 2

Subtitle as Header Level 3

You can put any content here, including text, images, tables, code blocks, etc.

- first unorder list item
  - → A sub item

1. first ordered list item
   i. A sub item

Next, we'll brief review some theme-specific components.

- Note that *all* of the standard Quarto + Typst features can be used with this theme
- Also, all the Touying features can be used by **Typst native code**

Before You Go...

The clean theme does not depend on any languages. You can use it with any language supported by Quarto, including R, Python, Julia.

For this demo, I use R code to show the figures and tables usage in the slides.

⚠ Required Software (this demo only)

R Packages:

```
install.packages(c("palmerpenguins", "modelsummary", "tinytable", "dplyr",
"ggplot2", "showtext"))
```

Components

Components

Ordered & Unordered Lists

Here we have an unordered list.

- first item
    - → sub-item
- second item

And next we have an ordered one.

1. first item
    i. sub-item
2. second item

Components

Alerts & Cross-refs

Special classes for emphasis

- `.alert` class for default emphasis, e.g. the second accent color.
- `.fg` class for custom color, e.g. with `options='fill: rgb("#5D639E")'`.
- `.bg` class for custom background, e.g. with the default color.

To cross-reference, you have several options, for example:

- Beamer-like .button class provided by this theme, e.g. ▸ Appendix
- Sections are not numbered in Touying, you cannot use `@sec-` cross-references

Components

Citations

Citations follow the standard Quarto format and be sourced from BibLaTeX, BibTeX, or CLS files. For example:

- Topic 1: Review of DID (Arkhangelsky and Imbens 2024)
- Topic 2: Goodman-Bacon (2021)

Small Citations

In many cases, you may want to use small citations, like

- Staggered DID (Callaway and Sant'Anna 2021; Sun and Abraham 2021; Borusyak, Jaravel, and Spiess 2024)

This `.small-cite` class is defined as a custom style ▸ custom styling

Components

Blocks

Quarto provides dedicated environments for theorems, lemmas, and so forth.

But in presentation format, it's arguably more effective just to use a Callout Block.

Regression Specification

The main specification is as follows:

$$y_{it} = X_{it}\beta + \mu_i + \varepsilon_{it}$$

Components

Multicolumn I: Text only

Column 1

Here is a long sentence that will wrap onto the next line as it hits the column width, and continue this way until it stops.

Some text that should be laid out below the code

Column 2

Some other text in another column.

A second paragraph.

Quarto's layout is more simple and flexible than Touying's native multicolumn support.

Components

Multicolumn II: Text and Figures

- First point
- Second point

For simple cases, you don’t even need to specify the class for each column.

Ad-hoc Styling

Typst CSS

- Quarto supports Typst CSS for simple styling
- You can change colors, backgrounds, and opacity for `span` elements

You can also change the font size and family for `div` elements.

Vertical Spacing

- A helper shortcode `{{< v DIST >}}` is provided to add vertical spacing
- This is converted to a Typst code `#v(DIST)` internally.

This is a `2em` vertical spaced from above.

Custom Styling

As latex-environment quarto extenstion, you can define custom `div` and `span` elements.

```yaml
format:
  clean-typst:
    include-in-header: "custom.typ"
    commands: [foo]
```

- You can define custom `div` and `span` elements as Typst functions in `custom.typ`
  - → `environments` in YAML is for block elements `:::{.foo}\nbody\n:::`
  - → `commands` in YAML is for inline elements `[]{.foo}`
- `[text]{.foo options="opts"}` is converted to `#foo(opts)[text]` internally
- If you want to use `self` as an argument, you can use `touying-fn-wrapper()`

YAML Settings

Fonts

```yaml
format:
  clean-typst:
    font-size: 20pt
    font-heading: Josefin Sans
    font-body: Montserrat
    font-weight-heading: bold
    font-weight-body: normal
    font-size-title: 2.5em
    font-size-subtitle: 1.5em
```

- `font-size` is the default font size for the slide. Other font sizes are relative to this
- `font-heading` and `font-body` are the font families for headings and body text
- Since the title slide is important, size of the title `font-size-title` and `font-size-subtitle` can be set separately

YAML Settings

Colors

```yaml
format:
  clean-typst:
    color-jet: "#272822"
    color-accent: "$accent$"
    color-accent2: "$accent2$"
```

- `color-jet` is the main color for text. `#000000` is too dark, and the default is `#131516`
- `color-accent` is used for the subtitle of the slide, buttons, lists, and the link colors
- `color-accent2` is used for the alert colors

Animations

Simple Animations

Touying's simple animations is available as `{{< pause >}}` and `{{< meanwhile >}}`

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Animations in Lists

Simple animations can be used in lists

- First

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Animations in Lists

Simple animations can be used in lists

- First
- Second

Complex Animations

Touying's complex animations is available as `{.complex-anim repeat=4}` environment.

At subslide 1, we can

use for reserving space,

use for not reserving space,

call `#only` multiple times ✗ for choosing one of the alternatives. But only works in a native Typst code.

Complex Animations

Touying's complex animations is available as `{.complex-anim repeat=4}` environment.

At subslide 2, we can

use `{.uncover}` environment for reserving space,

use `{.only}` environment for not reserving space,

use `#alternatives` function ✓ for choosing one of the alternatives. But only works in a native Typst code.

Complex Animations

Touying's complex animations is available as `{.complex-anim repeat=4}` environment.

At subslide 3, we can

use `{.uncover}` environment for reserving space,

use `{.only}` environment for not reserving space,

use `#alternatives` function ✓ for choosing one of the alternatives. But only works in a native Typst code.

Complex Animations

Touying's complex animations is available as `{.complex-anim repeat=4}` environment.

At subslide 4, we can

use `{.uncover}` environment for reserving space,

use `{.only}` environment for not reserving space,

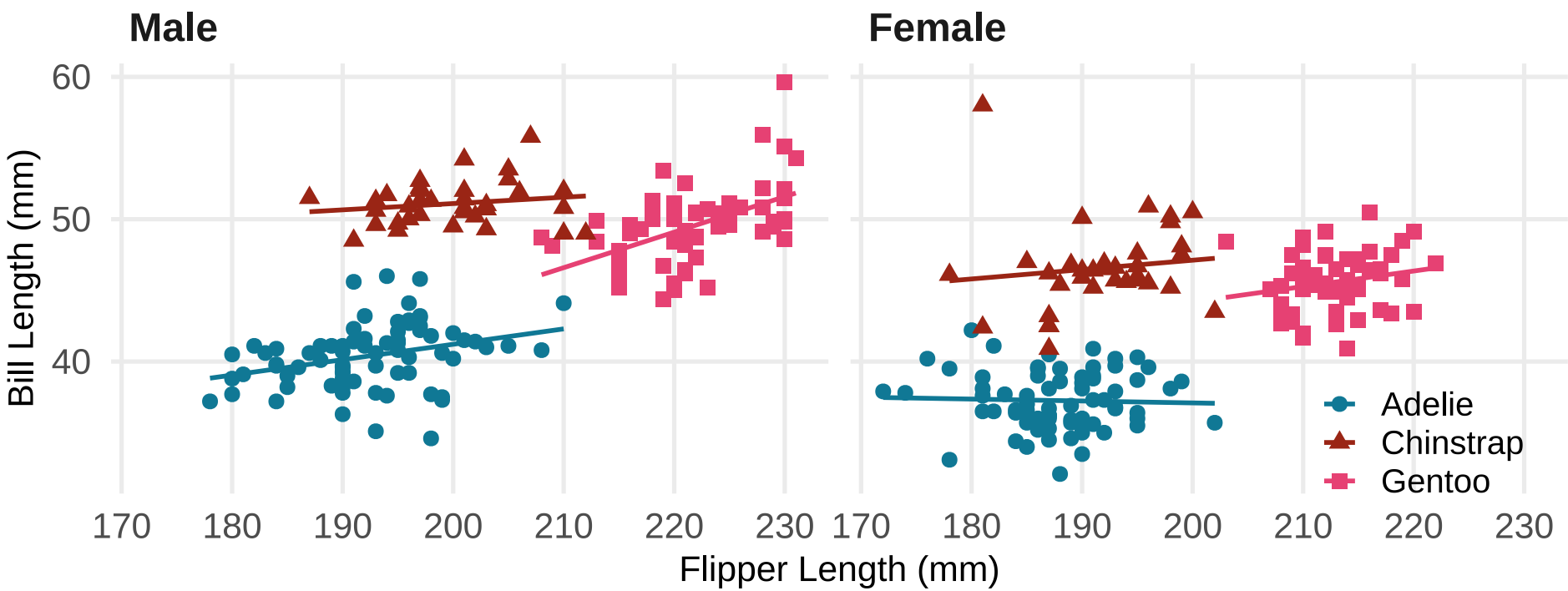
use `#alternatives` function ✓ for choosing one of the alternatives. But only works in a native Typst code.

Other Features

- All the animation functions can be used in Typst Math code ▸ Appendix
- `handout: true` in YAML header is available for handout mode (without animations)

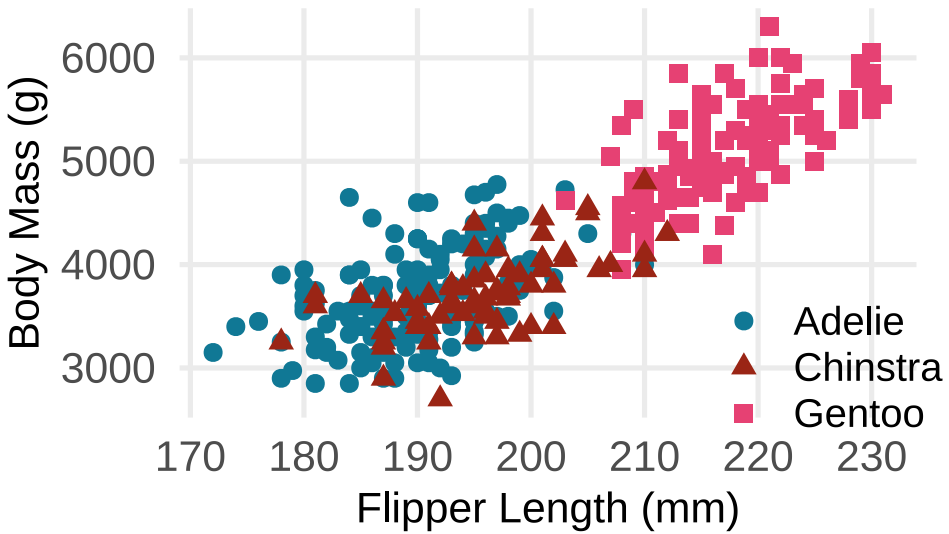
Figures & Tables

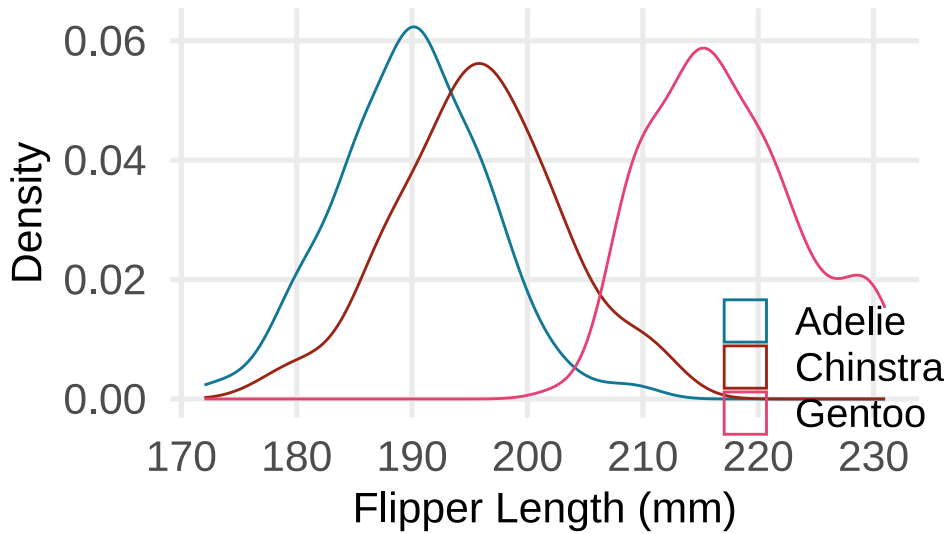
Figures



This is a `facet_wrap` example with `penguins` dataset.

Figures





This is an example of `layout-ncol: 2` for two figures.

Tables

	Male				Female			
	Bill Length (mm)	Bill Depth (mm)	Flipper Length (mm)	Body Mass (g)	Bill Length (mm)	Bill Depth (mm)	Flipper Length (mm)	Body Mass (g)
Adelie	40.39	19.07	192.4	4043	37.26	17.62	187.8	3369
Gentoo	49.47	15.72	221.5	5485	45.56	14.24	212.7	4680
Chinstrap	51.09	19.25	199.9	3939	46.57	17.59	191.7	3527

- You can easily create Typst tables by `tinytable`

Tables

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- You can easily create Typst tables by `tinytable`
- You can highlight by `tinytable::style_tt()`!
- Read the GitHub Issue and see `theme_slides()` for the table without captions

Regression Table

	Bill Length (mm)			Body Mass (g)		
	(1)	(2)	(3)	(4)	(5)	(6)
Chinstrap	10.042**	10.010**	10.037**	32.426	26.924	27.229
	(0.432)	(0.341)	(0.340)	(67.512)	(46.483)	(46.587)
Gentoo	8.713**	8.698**	8.693**	1375.354**	1377.858**	1377.813**
	(0.360)	(0.287)	(0.286)	(56.148)	(39.104)	(39.163)
Male		3.694**	3.694**		667.555**	667.560**
		(0.255)	(0.254)		(34.704)	(34.755)
Year			0.324*			3.629
			(0.156)			(21.428)
Observations	342	333	333	342	333	333

+ p < 0.1, * p < 0.05, ** p < 0.01

modelsummary is a super useful for regression tables (`tinytable` is used internally)

Last Words

Installation

```
quarto install extension kazuyanagimoto/quarto-clean-typst
```

Limitations

- Background colors and images are not supported

Appendix

- You can use `{{< appendix >}}` to start an appendix section. Slide numbering will be freezed. (Next Slides)

Appendix

Touying Math Animations

```
Touying equation with pause:
$
  f(x) &= pause x^2 + 2x + 1  \
       &= pause (x + 1)^2  \
$
Touying equation is very simple.
```

Touying equation with pause:

$$f(x) =$$

Touying equation is very simple.

▸ Back to main

Touying Math Animations

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Touying equation with pause:
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  f(x) &= pause x^2 + 2x + 1  \
       &= pause (x + 1)^2  \
$
Touying equation is very simple.
```

Touying equation with pause:

$$f(x) = x^2 + 2x + 1$$

$$=$$

Touying equation is very simple.

▸ Back to main

Touying Math Animations

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Touying equation with pause:
$
  f(x) &= pause x^2 + 2x + 1  \
       &= pause (x + 1)^2  \
$
Touying equation is very simple.
```

Touying equation with pause:

$$
\begin{aligned}
f(x) &= x^2 + 2x + 1 \\
&= (x + 1)^2
\end{aligned}
$$

Touying equation is very simple.

▸ Back to main

References

Arkhangelsky, Dmitry, and Guido Imbens. 2024. “Causal Models for Longitudinal and Panel Data: A Survey”. June 25, 2024. https://doi.org/10.48550/arXiv.2311.15458

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Callaway, Brantly, and Pedro H.C. Sant'Anna. 2021. “Difference-in-Differences with Multiple Time Periods”. *Journal of Econometrics* 225 (2): 200–230. https://doi.org/10.1016/j.jeconom.2020.12.001

Goodman-Bacon, Andrew. 2021. “Difference-in-Differences with Variation in Treatment Timing”. *Journal of Econometrics*, Themed Issue: Treatment Effect 1, 225 (2): 254–77. https://doi.org/10.1016/j.jeconom.2021.03.014

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