### Quarto Clean Theme

A Minimalistic Theme for Quarto + Typst + Touying

### Kazuharu Yanagimoto o

kazuharu.yanagimoto@cemfi.edu.es CEMFI

September 15, 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
  - $\rightarrow$  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"))

#### 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

#### 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 fill="#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

#### 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 style

#### 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.

i Regression Specification

The main specification is as follows:

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

## 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.

```
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

```
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-sizesubtitle can be set separately

### YAML Settings

#### Colors

```
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 >}}

# Simple Animations

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

#### **Animations in Lists**

Simple animations can be used in lists

First

### Simple Animations

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

#### **Animations in Lists**

Simple animations can be used in lists

- First
- Second

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 **X** for choosing one of the alternatives. But only works in a native Typst code.

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.

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.

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,

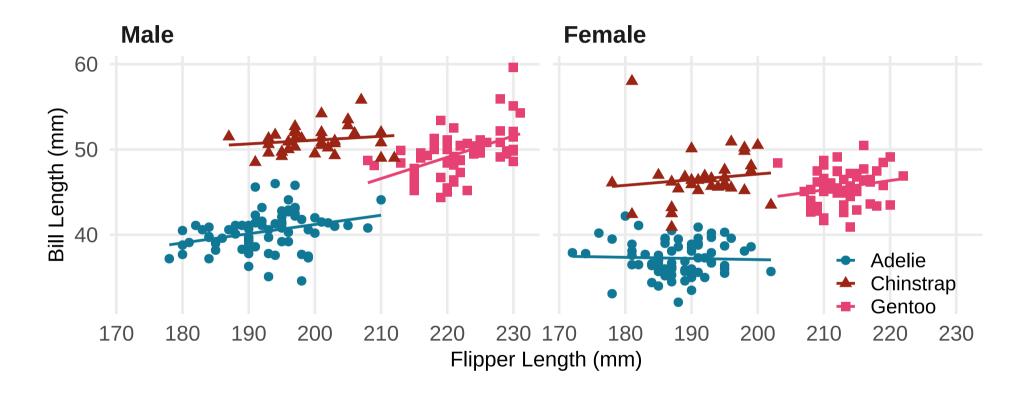
use #alternatives function 
for choosing one of the alternatives. But only works in a native Typst code.

#### **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)

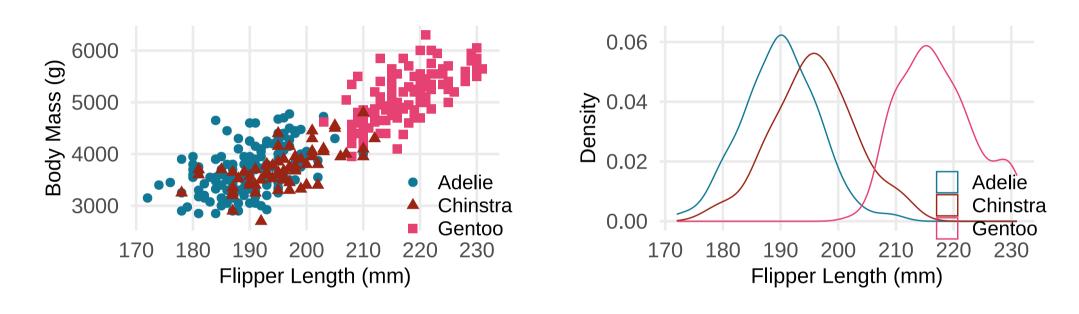
# Figures & Tables

# 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	Bill	Flipper	Body	Bill	Bill	Flipper	Body	
	Length	Depth	Length	Mass	Length	Depth	Length	Mass	
	(mm)	(mm)	(mm)	(g)	(mm)	(mm)	(mm)	(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	
Chinstra	p51.09	19.25	199.9	3939	46.57	17.59	191.7	3527	

► You can easily create Typst tables by tinytable

### Tables

	Male				Female			
	Bill	Bill	Flipper	Body	Bill	Bill	Flipper	Body
	Length	Depth	Length	Mass	Length	Depth	Length	Mass
	(mm)	(mm)	(mm)	(g)	(mm)	(mm)	(mm)	(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
Chinstra	p51.09	19.25	199.9	3939	46.57	17.59	191.7	3527

- ► You can easily create Typst tables by tinytable
- You can highlight by tinytable::style\_tt()!

### Tables

	Male				Female			
	Bill	Bill	Flipper	Body	Bill	Bill	Flipper	Body
	Length	Depth	Length	Mass	Length	Depth	Length	Mass
	(mm)	(mm)	(mm)	(g)	(mm)	(mm)	(mm)	(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
Chinstrap51.09		19.25	199.9	3939	46.57	17.59	191.7	3527

- ► 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 (m	ım)	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		

<sup>+</sup> 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

- Multiple columns are not supported
  - → You can use page columnization of Touying Appendix
  - → Not perfect, but a workaround
- 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.



# 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:

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

Touying equation is very simple.



# Touying Math Animations

```
Touying equation with pause:

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

Touying equation with pause:

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

Touying equation is very simple.



### Multiple Columns

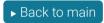
#### Column 1

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.

#### Column 2

Some other text in another column.

A second paragraph.



### 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
- Borusyak, Kirill, Xavier Jaravel, and Jann Spiess. 2024. "Revisiting Event-Study Designs: Robust and Efficient Estimation". *The Review of Economic Studies*, February, rdae7. https://doi.org/10.1093/restud/rdae007
- 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

### References

Sun, Liyang, and Sarah Abraham. 2021. "Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects". *Journal of Econometrics* 225 (2): 175–99. https://doi.org/10.1016/j.jeconom.2020.09.006