# La Mejor Masa de Pizza para Marcelo*

*Uso de Quarto + Typst para reportes científicos*

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**ABSTRACT** Etiam maximus accumsan gravida. Maecenas at nunc dignissim, euismod enim ac, bibendum ipsum. Maecenas vehicula velit in nisl aliquet ultricies. Nam eget massa interdum, maximus arcu vel, pretium erat. Maecenas sit amet tempor purus, vitae aliquet nunc. Vivamus cursus urna velit, eleifend dictum magna laoreet ut. Duis eu erat mollis, blandit magna id, tincidunt ipsum. Integer massa nibh, commodo eu ex vel, venenatis efficitur ligula. Integer convallis lacus elit, maximus eleifend lacus ornare ac. Vestibulum scelerisque viverra urna id lacinia. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Aenean eget enim at diam bibendum tincidunt eu non purus. Nullam id magna ultrices, sodales metus viverra, tempus turpis.

**Keywords:** Quarto, Typst, format
**JEL Codes:** J16, J22, J31

This document shows a practical usage of the template.

I use the Palmer penguins dataset (Horst et al., 2020) to demonstrate the features of the template. The code is available here.

## 1 Section as Heading Level 1

Section numbering can be specified in the YAML `section-numbering` field as other Typst templates.

### 1.1 Subsection as Heading Level 2

You can use LaTeX math expressions:

*This template is inspired by Kieran Healy's LaTeX and Rmd template and Andrew Heiss's Hikmah Quarto template.

$$Y_{it} = \alpha_i + \lambda_t + \sum_{k \neq -1} \tau_h \mathbb{1}\{E_i + k = t\} + \varepsilon_{it}.$$

I choose a mathematical font which supports the indicator function $\mathbb{1}\{\cdot\}$. Currently, I use the Libertinus Math font.

#### 1.1.1 Subsubsection as Heading Level 3

I don't use and don't recommend using heading levels 3 and below but it works.

### 1.2 Citation

You can cite a reference like this (Katsushika, 1831) or Horst, Hill, & Gorman (2020). Typst has some built-in citation styles. Check the Typst documentation for more information.

## 2 Figures and Tables

### 2.1 Figures

As Figura 1 shows, the caption is displayed below the figure. As a caption of the figure (`fig-cap`), I use bold text for the title and use a normal text for the description.

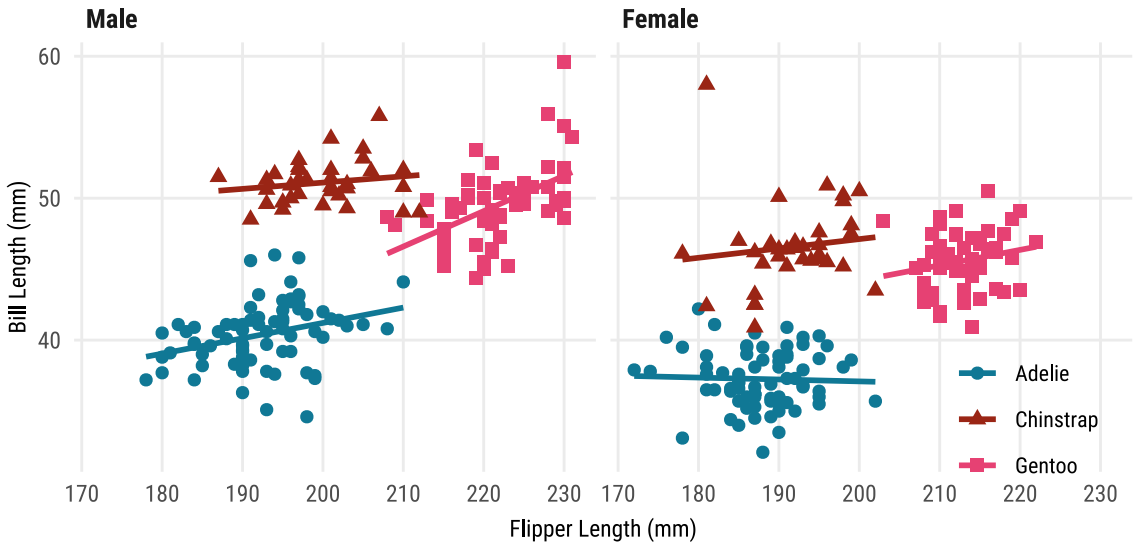


**Figura 1: Flipper Length and Bill Length of Penguins**. The x-axis shows the flipper length, and the y-axis shows the bill length.

When I want to show multiple figures side by side, I use the `patchwork` package. The reason why I don't use the `layout-col` option is that the caption is also split into two parts.

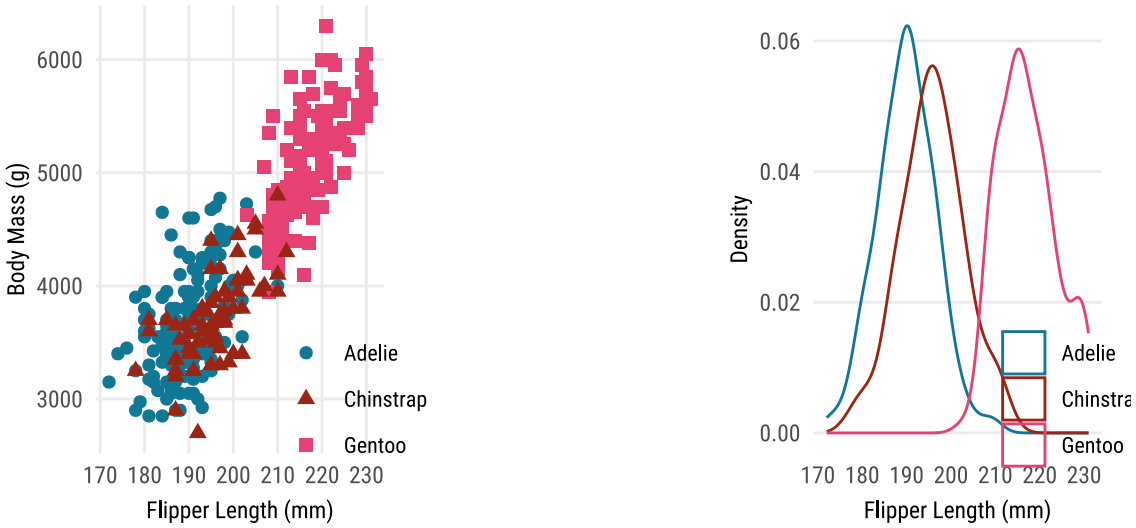


**Figura 2: Characteristics of Penguins**. The left panel shows the relationship between flipper length and body mass. The right panel shows the density of flipper length.

## 2.2 Tables

You can use tinytable for general tables and modelsummary for regression tables. As Tabla 1 shows, the caption is displayed above the table. The notes of the table can be added using the `notes` argument of the `tinytable::tt()` function.

**Tabla 1:** Summary Statistics of Penguins

| | 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 |
| Chins-trap | 51.09 | 19.25 | 199.9 | 3939 | 46.57 | 17.59 | 191.7 | 3527 |

*Notes*: Data from Palmer penguins dataset.

Since the default backend of `modelsummary` is `tinytable`, you can use the customization options of `tinytable` for `modelsummary`. In Tabla 2 , I use `tinytable::group_tt()` function to group the regression results by the dependent variables

**Tabla 2:** Regression Results of Penguins

| | 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

_Notes_: Data from Palmer penguins dataset.

While `tinytable` generates compatible tables between LaTeX and Typst, it does not support LaTeX math expressions for Typst tables. I think the compatibility between LaTeX and Typst is crucial for academic writing because it guarantees that the document can be easily converted to LaTeX for submission to journals.

A workaround is to use MiTeX, a Typst package that allows you to use LaTeX math expressions in Typst. I write a custom theme for `tinytable` to convert LaTeX math expressions to MiTeX expressions. The following table includes LaTeX math expressions but will be converted to MiTeX expressions in the Typst output.

**Tabla 3:** Math Symbols

| Math |
|---|
| $\alpha$ |
| $a_{it}$ |
| $e^{i\pi} + 1 = 0$ |

# 3 Last words

I made this template for my working papers, so it may not be suitable for other fields than economics. I am happy to receive feedback and suggestions for improvement.

# Appendix

## A Supplemental Figures

The section numbering will be changed to “A.1.1” in the appendix. The second section in the appendix will be “B”. On the other hand, the figure numbering will be reset to “A.1”, “A.2” so that it is clear that these figures are part of the appendix. The “A” stands for the “Appendix”, not the section numbering.

**Figura A.1: The Great Wave off Kanagawa**. A woodblock print by Katsushika (1831).

## References

Horst, A. M., Hill, A. P., & Gorman, K. B. (2020). *palmerpenguins: Palmer Archipelago (Antarctica) penguin data*. https://doi.org/10.5281/zenodo.3960218

Katsushika, H. (1831). *The Great Wave off Kanagawa*. https://upload.wikimedia.org/wikipedia/commons/a/a5/Tsunami_by_hokusai_19th_century.jpg