

# Metropolis

A modern beamer theme

Alfonso R. Reyes

April 20, 2019

Oil Gains Analytics LLC

# Table of Contents

1. Introduction
2. Title formats
3. Elements
4. Conclusion

# Introduction

---

The **metropolis** theme is a Beamer theme with minimal visual noise inspired by the hsrn Beamer Theme by Benjamin Weiss.

Enable the theme (in  $\text{\LaTeX}$ ) by loading

```
\documentclass{beamer}  
\usetheme{metropolis}
```

Note, that you have to have Mozilla's *Fira Sans* font and XeTeX installed to enjoy this wonderful typography.

In R you can of course use this package directly, see its documentation.

Sections group slides of the same topic

`## Elements`

for which **metropolis** provides a nice progress indicator ...

## Title formats

---

**metropolis** supports 4 different title formats:

- Regular
- SMALL CAPS
- ALL SMALL CAPS
- ALL CAPS

They can either be set at once for every title type or individually.

# Elements

---



The theme provides sensible defaults to  
`\emph{emphasize}` text, `\alert{accent}` parts  
or show `\textbf{bold}` results.

becomes

The theme provides sensible defaults to *emphasize* text, **accent** parts  
or show **bold** results.

# Font feature test

- Regular
- *Italic* (also *Italic*)
- SMALL CAPS
- **Bold** (also **Bold**)
- ***Bold Italic*** (also ***Italic***)
- **Bold Small Caps**
- Monospace
- *Monospace Italic*
- Monospace Bold
- *Monospace Bold Italic*

## Items

- Milk
- Eggs
- Potatoes

## Enumerations

1. First,
2. Second and
3. Last.

## Descriptions

**PowerPoint** Meeh.  
**Beamer** Yeeeha.

# Animation (using $\text{\LaTeX}$ )

- This is important

This uses  $\text{\LaTeX}$  for animation. The next slides uses RMarkdown

# Animation (using $\text{\LaTeX}$ )

- This is important
- Now this

This uses  $\text{\LaTeX}$  for animation. The next slides uses RMarkdown

# Animation (using $\text{\LaTeX}$ )

- This is important
- Now this
- And now this

This uses  $\text{\LaTeX}$  for animation. The next slides uses RMarkdown

# Animation (using $\text{\LaTeX}$ )

- This is really important
- Now this
- And now this

This uses  $\text{\LaTeX}$  for animation. The next slides uses RMarkdown

## Animation (using RMarkdown, plus one $\text{\LaTeX}$ trick)

- This is important



## Animation (using RMarkdown, plus one $\text{\LaTeX}$ trick)

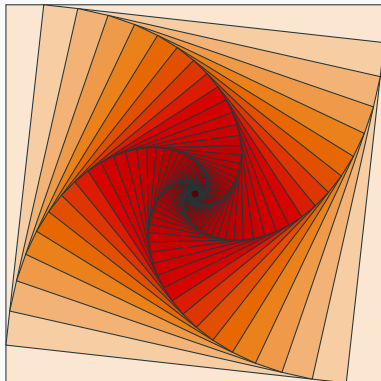
- This is important
- Now this

## Animation (using RMarkdown, plus one $\text{\LaTeX}$ trick)

- This is important
- Now this
- And now this

## Animation (using RMarkdown, plus one $\text{\LaTeX}$ trick)

- This is really important
- Now this
- And now this



**Figure 1:** Rotated square from texample.net.

This used a  $\text{\LaTeX}$  feature. All RMarkdown features are also at our disposal.

**Table 1:** Largest cities in the world (source: Wikipedia)

City	Population
Mexico City	20,116,842
Shanghai	19,210,000
Peking	15,796,450
Istanbul	14,160,467

This used a  $\text{\LaTeX}$  feature. All RMarkdown features are also at our disposal.

# Blocks

Three different block environments are pre-defined and may be styled with an optional background color.

## Default

Block content.

## Alert

Block content.

## Example

Block content.

## Default

Block content.

## Alert

Block content.

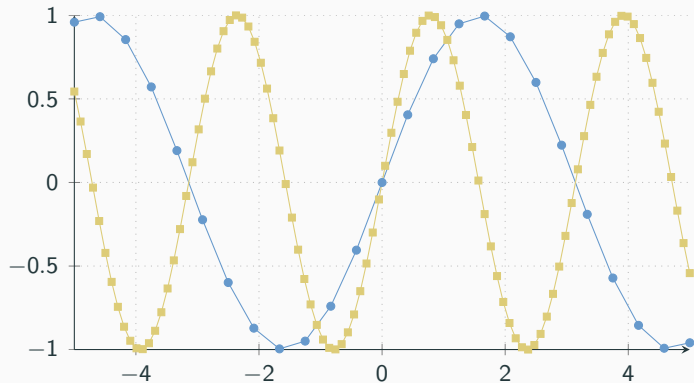
## Example

Block content.

The right side uses the `\metroset{block=fill}` option. Blocks can also be used in Markdown using `###` (if `slide-level=2`).

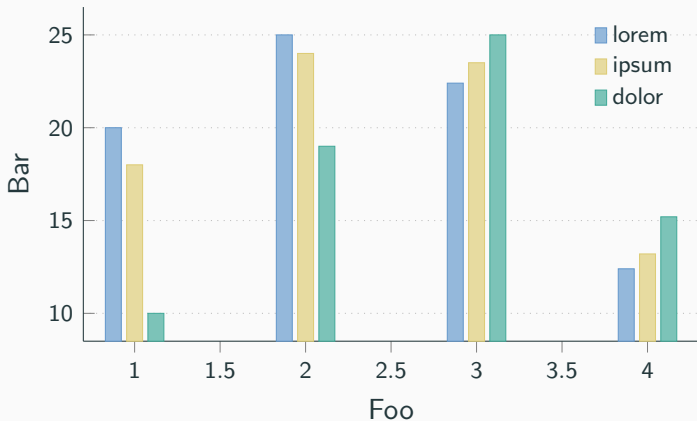
$$e = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n$$

## Line plots with tikz





## Bar charts with tikz



*Veni, Vidi, Vici*

Some references [Knuth, 1992, Graham et al., 1989, Simpson, 2003, Erdős, 1995, Greenwade, 1993]

`allowframebreaks` is not used or needed, also changed `\cite` to `\citep`, and defaulted `natbib` to option `[round]`.

## Conclusion

---

Get the source of this theme and the demo presentation from

<https://github.com/matze/mtheme>

The theme *itself* is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License



Source and documentation for the RMarkdown variant are at  
<https://github.com/eddelbuettel/binb>.

**Questions?**

Sometimes, it is useful to add slides at the end of your presentation to refer to during audience questions.

The best way to do this is to include the `appendixnumberbeamer` package in your preamble and call `\appendix` before your backup slides.

**metropolis** will automatically turn off slide numbering and progress bars for slides in the appendix.

Calling `\appendix` currently leads to an error in when using `binb`.

## R Appendix: R Figure Example

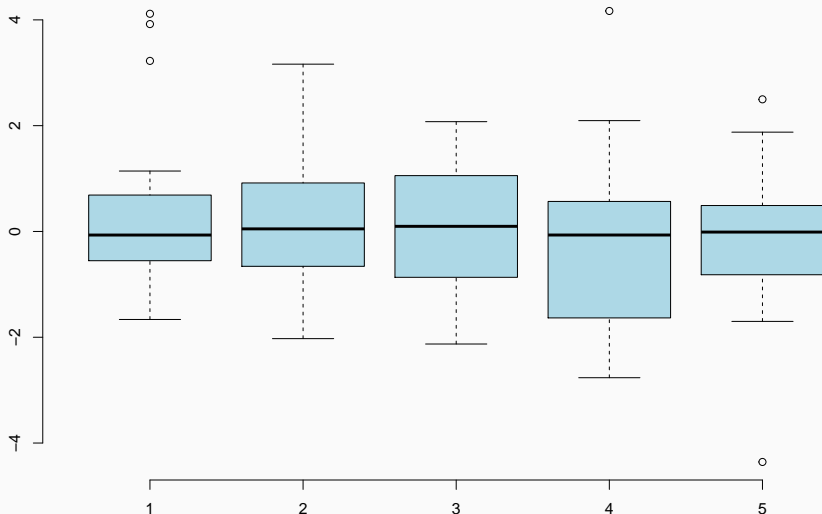
The following code generates the plot on the next slide (taken from `help(bxp)` and modified slightly):

```
library(stats)
set.seed(753)
bx.p <- boxplot(split(rt(100, 4),
                      gl(5, 20)), plot=FALSE)
bxp(bx.p, notch = FALSE, boxfill = "lightblue",
    frame = FALSE, outl = TRUE,
    main = "Example from help(bxp)")
```



## R Appendix: R Figure Example

Example from `help(bxp)`



## R Appendix: R Table Example

A simple `knitr::kable` example:

```
knitr::kable(mtcars[1:5, 1:8],  
             caption="(Parts of) the mtcars dataset")
```

**Table 2:** (Parts of) the mtcars dataset

	mpg	cyl	disp	hp	drat	wt	qsec	vs
Mazda RX4	21.0	6	160	110	3.90	2.620	16.46	0
Mazda RX4 Wag	21.0	6	160	110	3.90	2.875	17.02	0
Datsun 710	22.8	4	108	93	3.85	2.320	18.61	1
Hornet 4 Drive	21.4	6	258	110	3.08	3.215	19.44	1
Hornet Sportabout	18.7	8	360	175	3.15	3.440	17.02	0

# References

---

- P. Erdős. A selection of problems and results in combinatorics. In *Recent trends in combinatorics (Matrahaza, 1995)*, pages 1–6. Cambridge Univ. Press, Cambridge, 1995.
- R. Graham, D. Knuth, and O. Patashnik. *Concrete mathematics*. Addison-Wesley, Reading, MA, 1989.
- G. D. Greenwade. The Comprehensive Tex Archive Network (CTAN). *TUGBoat*, 14(3):342–351, 1993.
- D. Knuth. Two notes on notation. *Amer. Math. Monthly*, 99: 403–422, 1992.

H. Simpson. Proof of the Riemann Hypothesis. preprint (2003),  
available at <http://www.math.drofnats.edu/riemann.ps>,  
2003.