

Combining Beamer and RMarkdown

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Motivation

What dataset did I use for that plot in that workshop presentation last year?

- **Beamer** produces visually impressive presentations and its source files can easily be included in source control. However, even a basic presentation can require a lot of boiler plate code
- **RMarkdown** can be used to generate Beamer presentations allowing you to quickly write your slides in user-friendly RMarkdown with your plot-producing code adjacent
- Create a new presentation in RStudio with `File -> New File -> R Markdown -> Presentation -> PDF (Beamer)`

Basic formatting

- New frames are indicated by lines starting with ##
- Sections are denoted by a single #
- All the usual markdown formatting options apply, such as:
 - Bullet points are denoted by -
 - * for *italics*
 - ** for **bold**
- But you can also enter raw LaTeX:
 - `\alert{...}` highlights text
 - `$...$` for equations: $e = mc^2$

Section One - output plots

Slide with R Output

- R code can be included in the usual RMarkdown fashion inside “” chunks

```
x <- 1:10  
y <- exp(-x)  
qplot(x, y, geom="line") + theme_minimal()
```

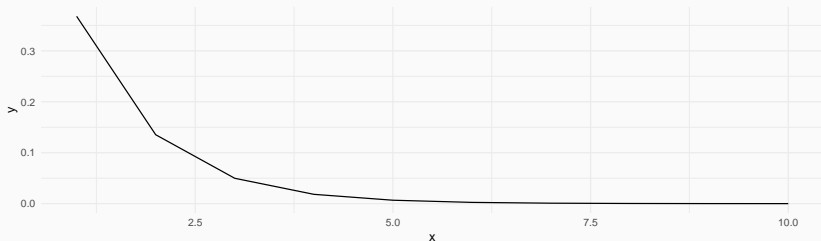


Figure 1: Exponential decay of x

Slide with Python Output

- You can even embed Python code!

```
import numpy as np
import matplotlib.pyplot as plt
x = np.arange(1, 10)
y = np.exp(-x)
plt.plot(x, y)
```

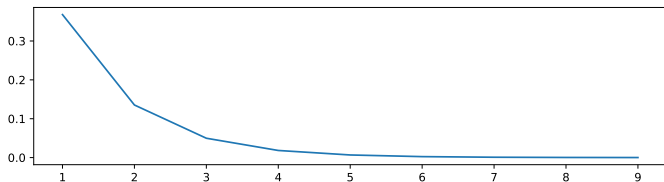


Figure 2: Exponential decay in Python

Section Two - more useful features

Two-column layout

- You'll often want to display your plots alongside text in `columns` using `:::` syntax
- Plots can be resized using the chunk options `fig.height` and `fig.width`
- Font size can be changed using standard LaTeX commands (see [here](#) for a full list)

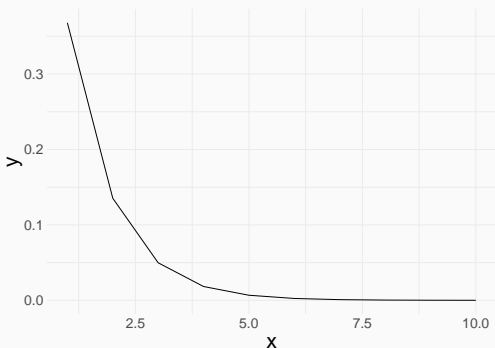


Figure 3: Plot in a column

Tables

Data frames can be easily displayed as tables

Table 1: Results from a novel study

Gas	Manchester			London		
	Min	Mean	Max	Min	Mean	Max
NO2	2	20	40	4	26	72.0
O3	8	30	52	16	39	93.6
CO2	50	100	212	100	130	381.6

External images/figures can be included using the standard Markdown syntax



Figure 4: WACL logo

Conclusions

That's all folks!