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# My first paper

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4

## Abstract

5     Hopefully with this minimal example you will appreciate the robustness and flexibility  
6     of `bookdown` and you will start writing amazing reproducible documents!!

7

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# 1 Introduction

- 22 This is my introduction to the flexible `bookdown` (Xie 2016) package.
- 23 `bookdown` extends the syntax provided by R Markdown, allowing automatic numbering of figures / tables / equations, and cross-references within a single documents.
- 24

25

## 2 Results

- 26 All the Figures created by the chunks in this article will be saved into the `img/` which is
- 27 created in the setup chunk at the beginning of this document.

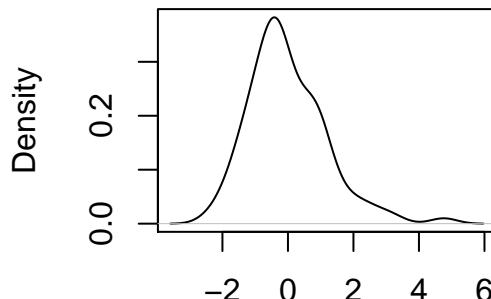
```
knitr::opts_chunk$set(echo = TRUE, fig.height = 5, fig.width = 5, fig.path = "img/", tidy =
```

28

### 2.1 Generate figures within a chunk

```
plot(density(rnorm(100)))
```

```
density.default(x = rnorm(100
```



$N = 100$  Bandwidth = 0.4022

Figure 1: Red trees in autumn

- 29 It's a pretty cool bell curve in Figure 1.

- 30     • Don't use `_` in labels! This is taken from `bookdown` book: *If you want to cross-reference  
31       figures or tables generated from a code chunk, please make sure the chunk label only  
32       contains alphanumeric characters (a-z, A-Z, 0-9), slashes (/), or dashes (-).*

33     

## 2.2 Insert png figures

```
img <- png::readPNG("img/kooka.png")
grid.raster(img)
```



Figure 2: Loud Kookabara

34     

## 2.3 Insert pdf figures with `knitr::include_graphics`

```
knitr::include_graphics("img/reproducible-documents.pdf")
```

## R Markdown library(bookdown)

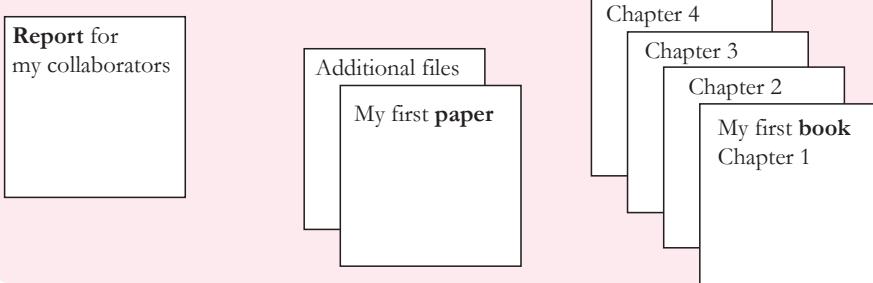


Figure 3: All types of documents with `bookdown`

### <sup>35</sup> 2.4 Insert tables with `knitr::kable`

```
tab <- knitr::kable(head(diamonds), caption = "A table of the first 10 rows and three columns of the diamonds data.", booktabs = TRUE)

kableExtra::kable_styling(tab, latex_options = "hold_position")
```

Table 1: A table of the first 10 rows and three columns of the diamonds data.

carat	cut	color	clarity	depth	table	price	x	y	z
0.23	Ideal	E	SI2	61.5	55	326	3.95	3.98	2.43
0.21	Premium	E	SI1	59.8	61	326	3.89	3.84	2.31
0.23	Good	E	VS1	56.9	65	327	4.05	4.07	2.31
0.29	Premium	I	VS2	62.4	58	334	4.20	4.23	2.63
0.31	Good	J	SI2	63.3	58	335	4.34	4.35	2.75
0.24	Very Good	J	VVS2	62.8	57	336	3.94	3.96	2.48

<sup>36</sup> We created the simple Table 1. See more on tables and long tables <https://bookdown.org/>

<sup>37</sup> [yihui/bookdown/tables.html](#).

## 38 2.5 Extra tips: Setup your bibliography with `utils::citation`

```
39 print(utils::citation("rticles"), bibtex = TRUE)
40 ## To cite package 'rticles' in publications use:
41 ##
42 ## JJ Allaire, Yihui Xie, R Foundation, Hadley Wickham, Journal of
43 ## Statistical Software, Ramnath Vaidyanathan, Association for
44 ## Computing Machinery, Carl Boettiger, Elsevier, Karl Broman,
45 ## Kirill Müller, Bastiaan Quast, Randall Pruim, Ben Marwick,
46 ## Charlotte Wickham, Oliver Keyes, Miao Yu, Daniel Emaasit,
47 ## Thierry Onkelinx, Alessandro Gasparini, Marc-Andre Desautels,
48 ## Dominik Leutnant, MDPI, Oğuzhan Öğreden, Dalton Hance and Daniel
49 ## Nüst (2018). rticles: Article Formats for R Markdown. R package
50 ## version 0.6. https://CRAN.R-project.org/package=rticles
51 ##
52 ## A BibTeX entry for LaTeX users is
53 ##
54 ## @Manual{,
55 ##   title = {rticles: Article Formats for R Markdown},
56 ##   author = {JJ Allaire and Yihui Xie and {R Foundation} and Hadley Wickham and {Journal of
57 ##             Computing Machinery} and Carl Boettiger and Elsevier and Karl Broman and Kirill Müller and Bastiaan Quast and Randall Pruim and Ben Marwick and Charlotte Wickham and Oliver Keyes and Miao Yu and Daniel Emaasit and Thierry Onkelinx and Alessandro Gasparini and Marc-Andre Desautels and Dominik Leutnant and MDPI and Oğuzhan Öğreden and Dalton Hance and Daniel Nüst},
58 ##   year = {2018},
59 ##   note = {R package version 0.6},
60 ##   url = {https://CRAN.R-project.org/package=rticles},
```

61 **2.6 Reference/Re-number files in supplementary material**

62 Have a look at the beautiful autumn trees in Figure S1.

63 **3 Conclusions**

64 Hopefully now you have a pretty good overview of the options offered by `bookdown!` Also,  
65 the best way to learn is to go through other people's GitHub accounts and have a look at  
66 how they do things as well as ask questions!

67 **Supplementary Material**

68 **A beautiful autumn tree**

```
img <- png::readPNG("img/trees.png")
grid::grid.raster(img)
```

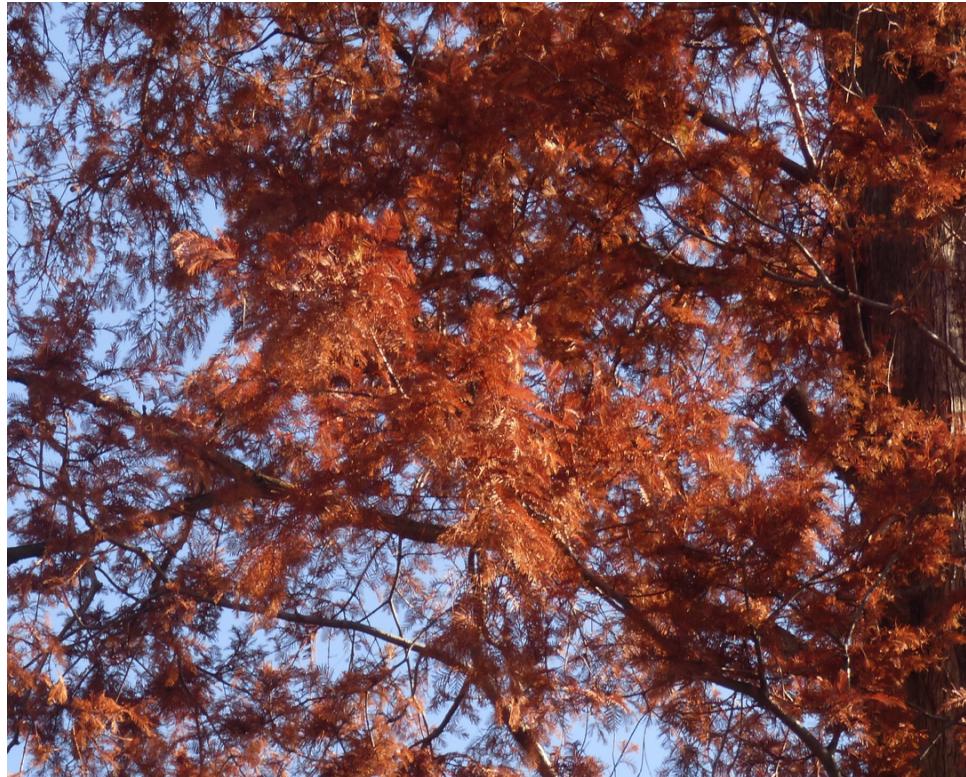


Figure S1: Autumn trees at the University of Melbourne

<sup>69</sup> **References**

<sup>70</sup> **3.1 Interesting blogposts**

- <sup>71</sup> • *Interface R with Overleaf* <https://medium.com/@arinbasu/a-tutorial-on-how-to-interface-an-r-notebook>
- <sup>72</sup> • Minimal `bookdown` template for scientific papers <http://landscapeportal.org/blog/2017/09/06/r-markdown-template-for-a-scientific-manuscript/>
- <sup>73</sup> • Earo Wang papers on GitHub and helpful suggestions via email!

<sup>75</sup> Xie, Yihui. 2016. *Bookdown: Authoring Books and Technical Documents with R Markdown*.

<sup>76</sup> Boca Raton, Florida: Chapman; Hall/CRC. <https://github.com/rstudio/bookdown>.