

A template for writing manuscripts in Rmarkdown

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Write your abstract here (or above in YAML if you prefer).

Keywords: rmarkdown, reproducible science

15 INTRODUCTION

16 Write your introduction here. You can cite bibliography like this (Yan and Gerstein 2011, Sutherland
17 et al. 2011), if you provide a BibTeX file with references. See
18 http://rmarkdown.rstudio.com/authoring_bibliographies_and_citations.html for more information.
19 Or you could also use [knitcitations](#) or [RefManageR](#) to fetch bibliographic metadata automatically
20 from the web. For example, citing a paper can be as easy as providing its DOI (Clark and Gelfand
21 2006) or even just a few keywords (Ricklefs 2008). They will then automagically appear in the list of
22 cited references.

23 You can even specify the desired output format for your bibliography by including a style file for a
24 specific journal (e.g. “ecology.csl”). Many different bibliography styles (CSL files) can be obtained at
25 <http://citationstyles.org/> or <https://github.com/citation-style-language/styles>.

26 METHODS

27 Study Area

28 We worked in a **beautiful** place with lots of trees, like *Quercus suber* and *Laurus nobilis*.

29 Data collection and analysis

30 We applied a linear model where

$$y_i = \alpha + \beta * x_i$$

31 We used the statistical language R (R Core Team 2020) for all our analyses. These were implemented
32 in dynamic rmarkdown documents using **knitr** (Xie 2014, 2015, 2021) and **rmarkdown** (Xie et al.
33 2018, 2020, Allaire et al. 2020) packages. All the multilevel models were fitted with **lme4** (Bates et al.
34 2015).

35 RESULTS

36 Trees in forest A grew taller than those in forest B (mean height: 25 versus 13 m). And many more
37 cool results that get updated dynamically, e.g. Table 2 and Fig. 1.

38 DISCUSSION

39 Discuss.

40 CONCLUSIONS

41 Wrap up

42 ACKNOWLEDGEMENTS

43 I am so grateful to everyone.

44 REFERENCES

- 45 10 Allaire, J., Y. Xie, J. McPherson, J. Luraschi, K. Ushey, A. Atkins, H. Wickham, J. Cheng, W.
46 Chang, and R. Iannone. 2020. Rmarkdown: Dynamic documents for r.
- 47 Bates, D., M. Mächler, B. Bolker, and S. Walker. 2015. Fitting linear mixed-effects models using
48 lme4. *Journal of Statistical Software* 67:1–48.
- 49 Clark, J. S., and A. E. Gelfand. 2006. A future for models and data in environmental science. *Trends*
50 *in Ecology & Evolution* 21:375–380.
- 51 R Core Team. 2020. R: A language and environment for statistical computing. R Foundation for
52 Statistical Computing, Vienna, Austria.
- 53 Ricklefs, RobertE. 2008. Disintegration of the ecological community: American society of naturalists
54 sewall wright award winner address. *The American Naturalist* 172:741–750.

- 55 Sutherland, W. J., D. Goulson, S. G. Potts, and L. V. Dicks. 2011. Quantifying the impact and
56 relevance of scientific research. *PLoS ONE* 6:e27537.
- 57 Xie, Y. 2014. Knitr: A comprehensive tool for reproducible research in R. *in* V. Stodden, F. Leisch,
58 and R. D. Peng, editors. Implementing reproducible computational research. Chapman;
59 Hall/CRC.
- 60 Xie, Y. 2015. Dynamic documents with R and knitr. 2nd edition. Chapman; Hall/CRC, Boca Raton,
61 Florida.
- 62 Xie, Y. 2021. Knitr: A general-purpose package for dynamic report generation in r.
- 63 Xie, Y., J. J. Allaire, and G. Golemund. 2018. R markdown: The definitive guide. Chapman;
64 Hall/CRC, Boca Raton, Florida.
- 65 Xie, Y., C. Dervieux, and E. Riederer. 2020. R markdown cookbook. Chapman; Hall/CRC, Boca
66 Raton, Florida.
- 67 Yan, K.-K., and M. Gerstein. 2011. The spread of scientific information: Insights from the web usage
68 statistics in PLoS article-level metrics. *PLoS ONE* 6:e19917.

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Table 1: A glimpse of the famous *Iris* dataset.

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa

Table 2: Now a subset of mtcars dataset.

	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1	0	4	4
Merc 280C	17.8	6	167.6	123	3.92	3.440	18.90	1	0	4	4
Merc 450SE	16.4	8	275.8	180	3.07	4.070	17.40	0	0	3	3
Merc 450SL	17.3	8	275.8	180	3.07	3.730	17.60	0	0	3	3
Merc 450SLC	15.2	8	275.8	180	3.07	3.780	18.00	0	0	3	3
Cadillac Fleetwood	10.4	8	472.0	205	2.93	5.250	17.98	0	0	3	4
Lincoln Continental	10.4	8	460.0	215	3.00	5.424	17.82	0	0	3	4

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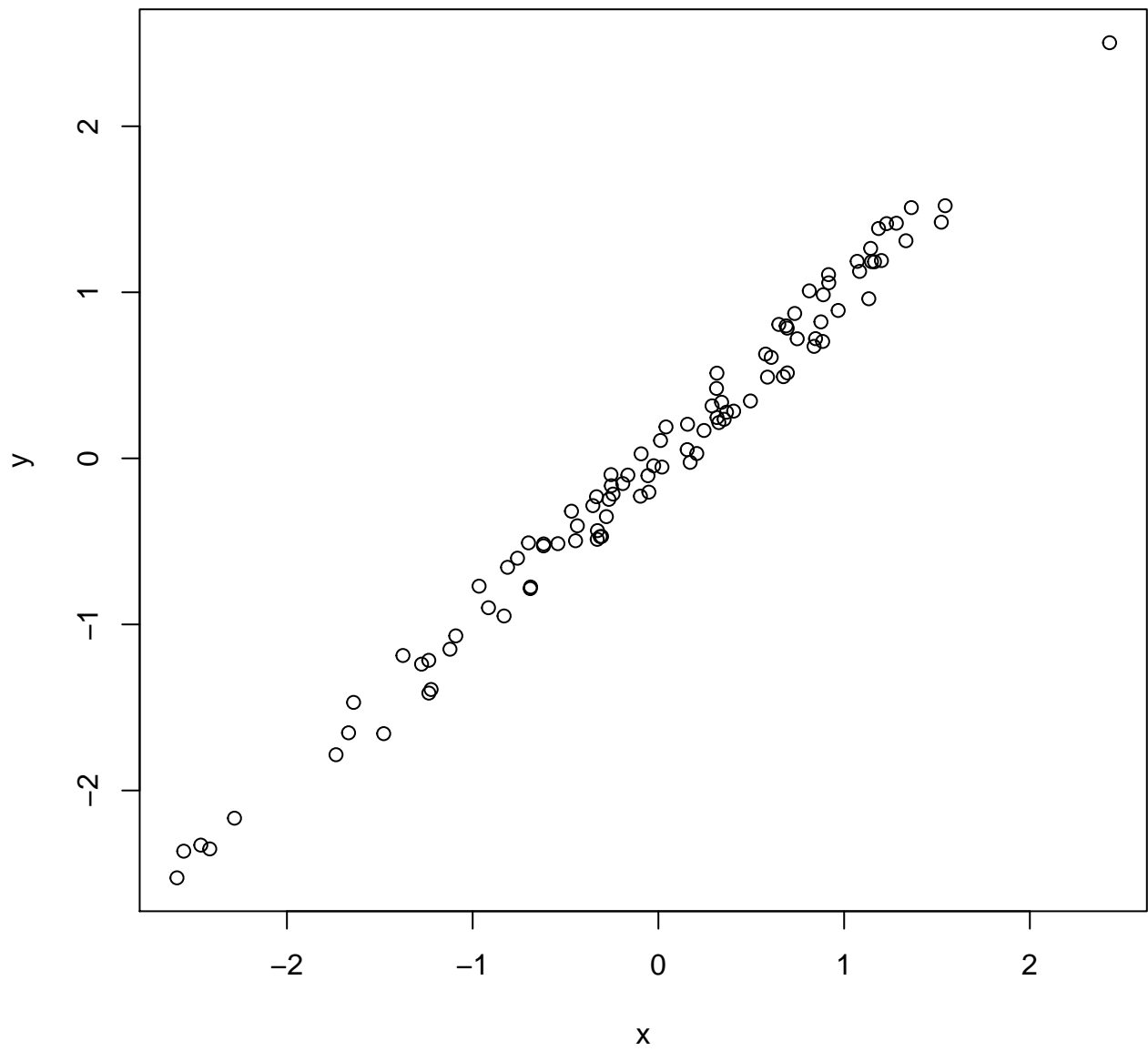


Figure 1: Just my first figure with a very fantastic caption.

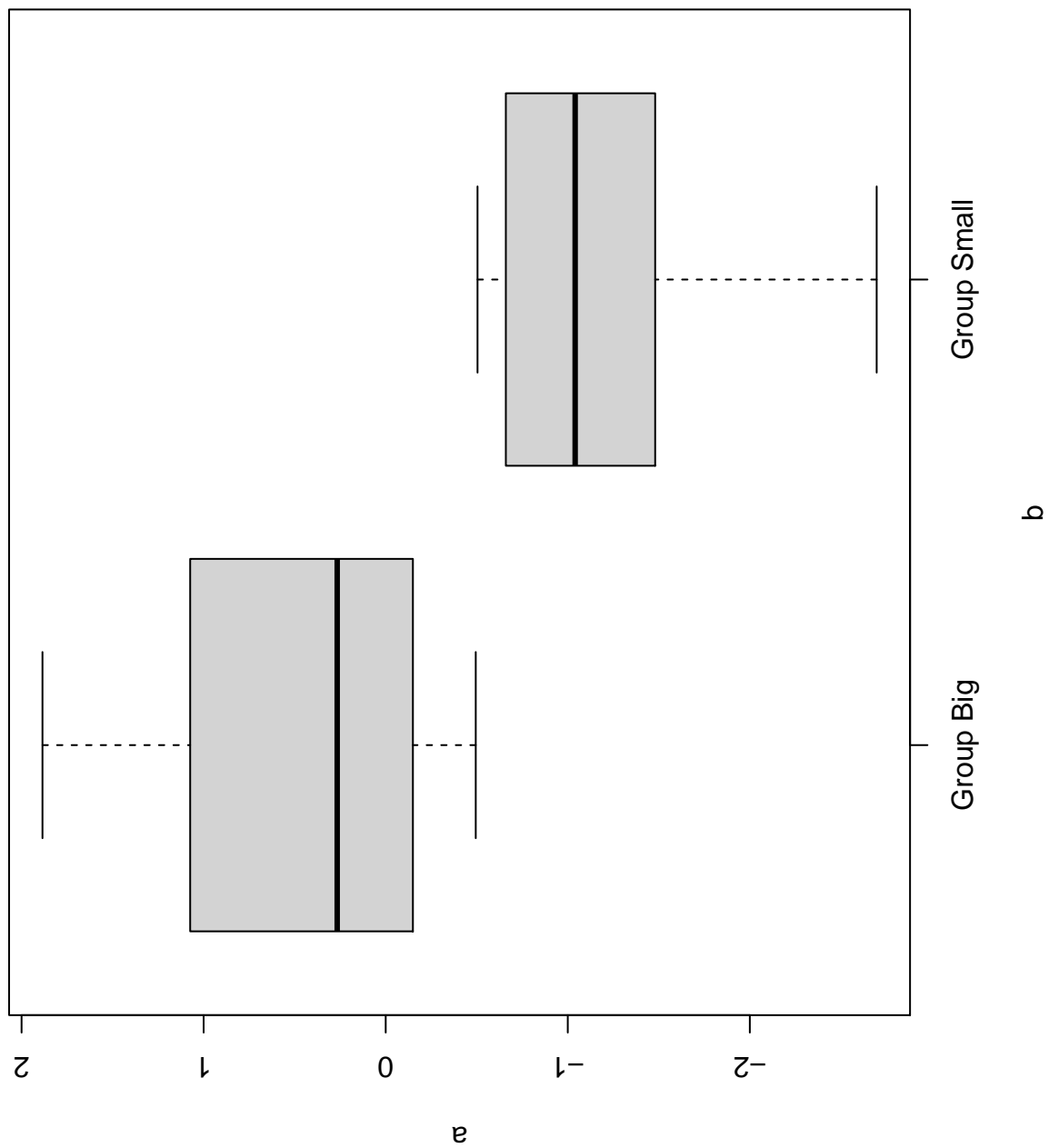


Figure 2: Second figure in landscape format.