

Seminar for Statistics

Master Thesis September 2022

Anna Reichart

Guidelines for Covariate Adjustment

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Adviser: Dr. Lukas Meier

To some special person

<u>iv</u> Preface

Preface

First words and acknowledgements.

vi Abstract

Abstract

Short summary of my thesis.

viii CONTENTS

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Notation

Explain your symbols and abbreviations.

Notation

A few words from the authors

2 Notation

Introduction

The R package bookdownplus (Author and Author, tion), (Hampel, 1985), Stahel and Weisberg (1991, p. 15) is an extension of bookdown. Indeed, you can also just dispay the year from the reference: I.e. Stahel was right (1991). You can find all supported citation formats here. Here are some:

- (Stahel and Weisberg, 1991)
- (see Stahel and Weisberg, 1991, p.3)
- Chollet (1991, p.3) says
- Stahel and Weisberg (1991, p. 3)

It is a collection of multiple templates on the basis of LaTeX, which are tailored so that I can work happily under the umbrella of bookdown. bookdownplus helps you write academic journal articles, guitar books, chemical equations, mails, calendars, and diaries.

4 Introduction

Features

bookdownplus extends the features of bookdown, and simplifies the procedure. Users only have to choose a template, clarify the book title and author name, and then focus on writing the text. No need to struggle in YAML and LaTeX. With bookdownplus users can

- record guitar chords,
- write a mail in an elegant layout,
- write a laboratory journal, or a personal diary,
- draw a monthly or weekly or conference calendar,
- and, of course, write academic articles in your favourite way,
- with chemical molecular formulae and equations,
- even in Chinese,
- and more wonders will come soon.

Full documentation can be found in the book R bookdownplus Textbook. The webpage looks so-so, while the pdf file might give you a little surprise.

6 Features

Quick start

- 3.1 Preparation
- 3.2 Installation
- 3.3 Generate demo files
- 3.4 Build a demo book
- 3.5 Write your own
- 3.6 More outputs
- 3.7 Recommendations
- 3.8 Models

8 Quick start

Results

10 Results

Conclusions

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum

12 Conclusions

Keyboard example

Keyboard example Version 2

small simulation study

Bibliography

Author, F. and S. Author (year of publication). Title of the article. *Journal where the article has been published volume of the journal* (issue number), firstpage—lastpage.

Hampel, F. R. (1985). The breakdown points of the mean combined with some rejection rules. *Technometrics* 27(2), 95–107.

Stahel, W. and S. Weisberg (1991). Directions in Robust Statistics and Diagnostics, 2 vol. N. Y.: Springer-Verlag.

20 BIBLIOGRAPHY

Appendix A

Complementary information

Additional material. For example long mathematical derivations could be given in the appendix. Or you could include part of your code that is needed in printed form. You can add several Appendices to your thesis (as you can include several chapters in the main part of your work).

A.1 Including R code with verbatim

A simple (rather too simple, see A.2) way to include code or R output is to use verbatim. It just prints the text however it is (including all spaces, "strange" symbols,...) in a slightly different font.

A.2 Including R code with the *listings* package

However, it is much nicer to use the *listings* package to include R code in your report. It allows you to number the lines, color the comments differently than the code, and so on.

```
## example to generate an .eps file with the function ps.latex()
  ## Author: Sarah Gerster and Martin Maechler
  ## Last revision: 16 Aug 2011
  require("sfsmisc") # pdf.latex(), pdf.end(), etc
  pdf.latex(file='test_plot.pdf') #, main=TRUE)
  ## no main=TRUE is needed to leave enough space for the plot title
  ## but see below
  ## make sure the legends are large enough
  par(cex=1.5)
  ## Make sure your lines are "visible" enough. Otherwise your plot
  ## won't look very nicely in your text.
16 plot(-10:10, (-10:10)**2, type="1", lty=5,
       xlab="my_x", ylab="my_y",
## no main title: NOT recommended for figures in text which
       ## have a \caption{..}
       lwd=4, col='blue')
21 lines(-10:10, 0:20, type="p", lwd=4, pch=23,col='red')
legend(-3, 90, c("func1", "func2"), lwd=4, col=c('blue', 'red'),
         lty=c(1,1),cex=1)
  pdf.end() # starts the previewer (which refreshes itself;
          # at least on Linux at SfS
```

A.3 Using Sweave to include R code (and more) in your report

The easiest (and most elegant) way to include R code and its output (and have all your figures up to date with your report) is to use Sweave. You can find an introduction Sweave in /u/sfs/StatSoftDoc/Sweave/Sweave-tutorial.pdf.

Appendix B

Yet another appendix....

B.1 Description

Something details.

 $\begin{tabular}{ll} \textbf{Something else} & other definition. \end{tabular}$

B.2 Tables

Refer to Table B.1 to see a left justified table with caption on top.

Table B.1:	Results.
Student	Grade
Marie	6
Alain	5.5
Josette	4.5
Pierre	5

Epilogue

A few final words.

26 Epilogue

Declaration of Originality

The signed declaration of originality is a component of every semester paper, Bachelor's thesis, Master's thesis and any other degree paper undertaken during the course of studies, including the respective electronic versions.

Lecturers may also require a declaration of originality for other written papers compiled for their courses.

their courses.	
	ole author of the written work here enclosed and that I have Parts excepted are corrections of form and content by the
Title of work (in block letters):	:
Authored by (in block letters): For papers written by groups the nat	
Name(s):	First name(s):
 information sheet. I have documented all methers. I have not manipulated any. I have mentioned all person. I am aware that the work respectively. 	the forms of plagiarism described in the Citation etiquette hods, data and processes truthfully.
Place, date:	Signature(s):

For papers written by groups the names of all authors are required. Their signatures collectively guarantee the entire content of the written paper.
