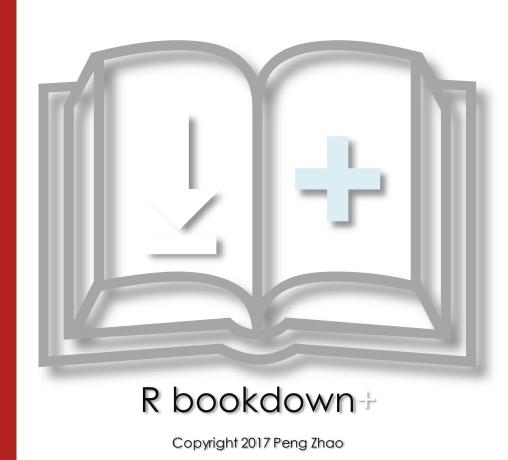
# R bookdown+: Authoring varied types of books and documents with R bookdown

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CHAPTER 2. DEMOS

#### Introduction

#### Motivation

R bookdown (Xie, 2016) is an excellent R (R Core Team, 2017) package for authoring books on programming languages. It has the potential to do much more than authoring R books if users costumize self-defined templates. However, the development of templates is difficult and unnecessary. Therefore I developed bookdown+ (Zhao, 2017).

#### Features

R bookdown+ is a collection of multiple templates. With bookdown+ you can easily

- write a laboratory journal, or a personal diary,
- draw a monthly or weekly or conference calendar,
- record guitar chords,
- write a mail in an elegant layout,
- ▶ 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.

This poster you are viewing now is produced by R bookdown+.

## Quick start

Before starting, you have to install R, RStudio, bookdown package, and other software and packages (i.e. Pandoc, LaTEX, rmarkdown, rticle, knitr, etc.) which bookdown depends on. See the official manual of bookdown <sup>a</sup> for details.

Download bookdown+  $^b$  package as a zip file from Github. Unzip it to a folder in your PC. Double click a file named \_start.Rproj, which will be opened by RStudio.

Open \_runme.R and run it. The explanation is as follows,

- 1. Specify the title and the author of your book or document.
- 2. Choose a template out of the available templates. Run fun/build.R.
- 3. Press ctrl+shift+b to build a demo book, which you can find in book/. Write your own text in body.Rmd, and build your own lovely book.
- ahttps://bookdown.org/yihui/bookdown/
- <sup>b</sup>https://github.com/dapengde/bookdown-plus

### **Graphs**

Using bookdown or rmarkdown, users can insert figures into a document in a friendly way. Just embed the R scripts into your .Rmd file(s) and compile it/them with knitr package, and the figures will appear automatically with high resolution and reproductivity.

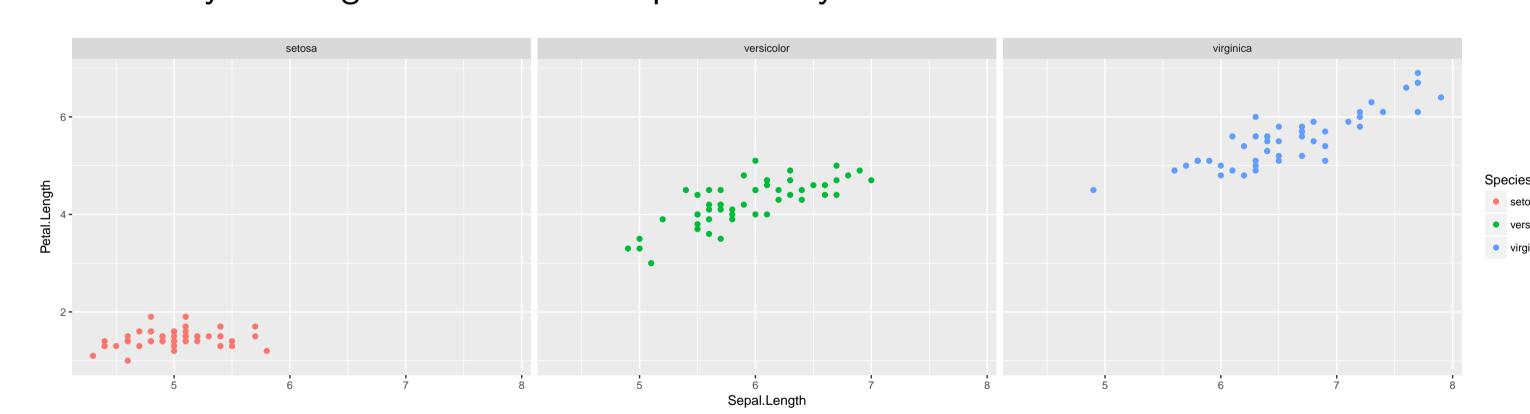


Figure 1: IRIS data plotted with R ggplot2 package.

## **Table**

Similarly to graphs, tables can be inserted either with R script or with markdown syntax.

#### 

| 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  |

## Bibliography

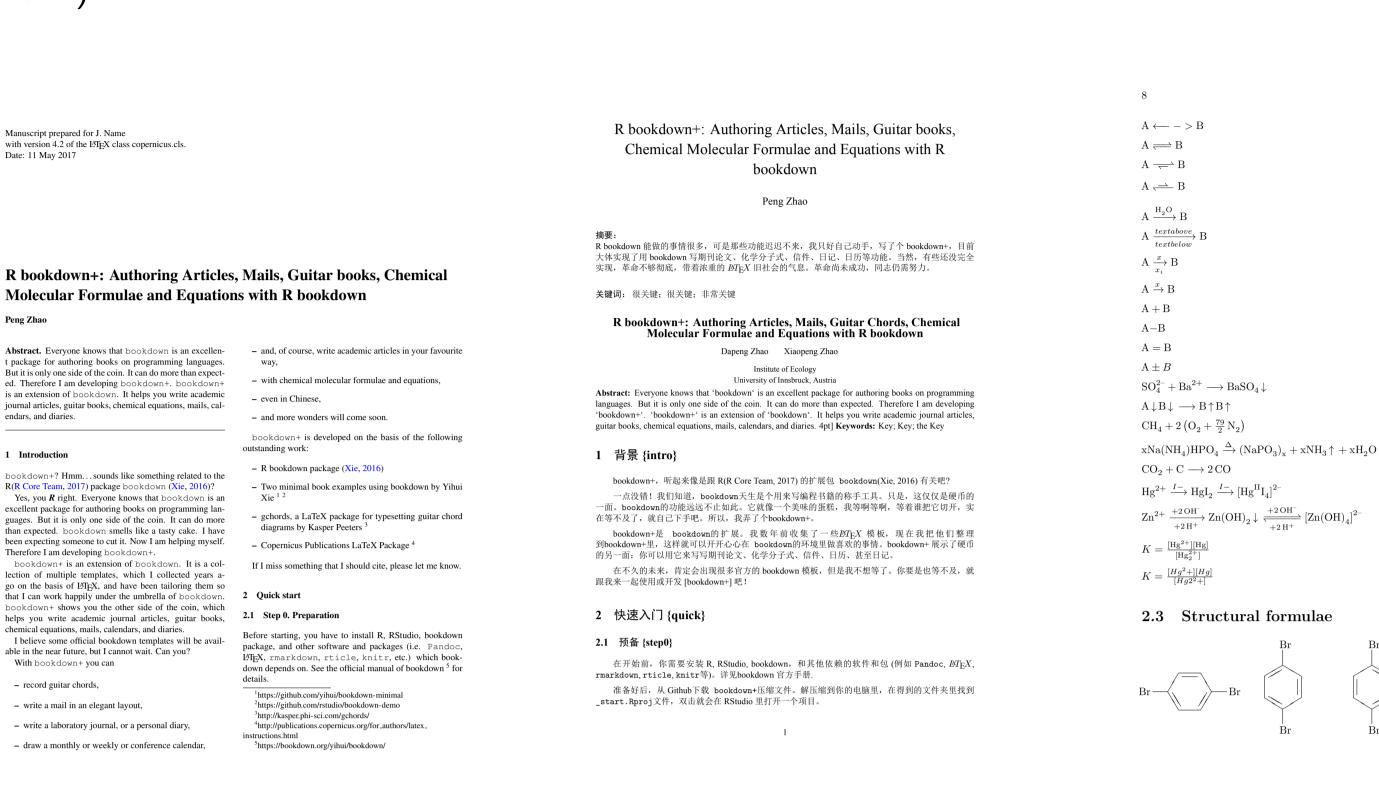
R Core Team (2017). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing. Vienna, Austria.

Xie, Y (2016). bookdown: Authoring Books and Technical Documents with R Markdown. R package version 0.3.17.

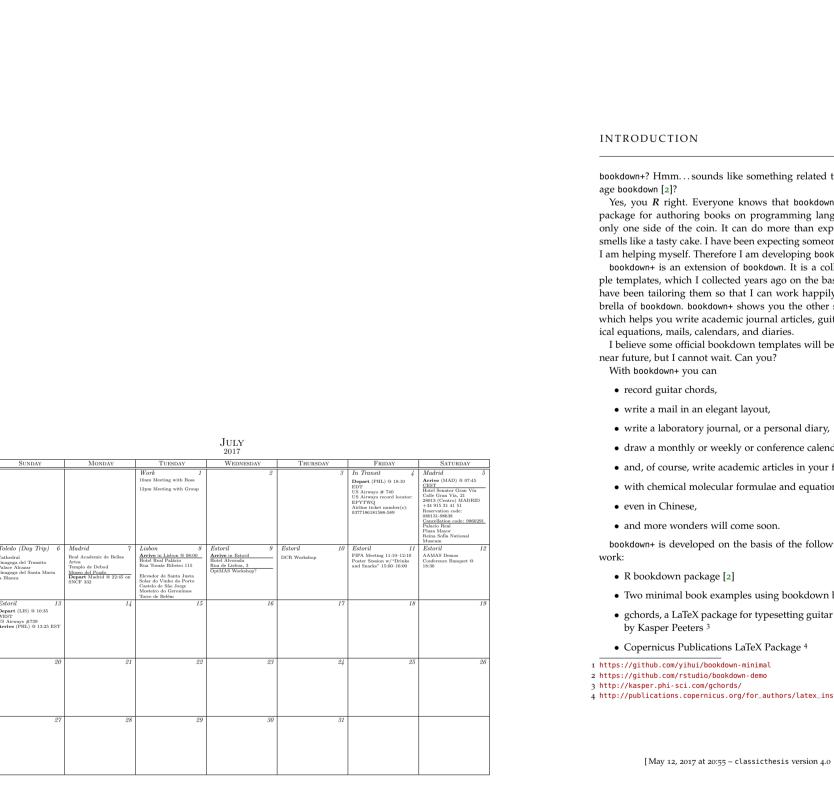
Zhao, P (2017). R bookdown+: Enhancement of bookdown for writing varied types of books and documents.

## Book types supported by bookdown+

Some sample pages are displayed as follows. More details can be found in the tutorial book (Zhao, 2017).







bookdown+? Hmm...sounds like something related to the R[1] pack Yes, you R right. Everyone knows that bookdown is an excellent backage for authoring books on programming languages. But it is only one side of the coin. It can do more than expected. bookdown smells like a tasty cake. I have been expecting someone to cut it. Now I am helping myself. Therefore I am developing bookdown+. bookdown+ is an extension of bookdown. It is a collection of multiole templates, which I collected years ago on the basis of LATEX, and ave been tailoring them so that I can work happily under the umbrella of bookdown. bookdown+ shows you the other side of the coin, which helps you write academic journal articles, guitar books, chemcal equations, mails, calendars, and diaries. I believe some official bookdown templates will be available in the near future, but I cannot wait. Can you? • write a laboratory journal, or a personal diary • and, of course, write academic articles in your favourite way, with chemical molecular formulae and equations and more wonders will come soon bookdown+ is developed on the basis of the following outstanding • Two minimal book examples using bookdown by Yihui Xie 1 2 • gchords, a LaTeX package for typesetting guitar chord diagrams • Copernicus Publications LaTeX Package <sup>4</sup> https://github.com/yihui/bookdown-minima 3 http://kasper.phi-sci.com/gchords/

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed

nec sem sit amet lacus aliquam blandit. Nunc tristique

mollis eros. Praesent elit. Maecenas turpis. Vestibulum

dictum ac, dictum nec, bibendum ut, ante. Phasellus justo

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purus, pellentesque sed, interdum hendrerit, interdum

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luctus et ultrices posuere cubilia Curae; Nam lacus mi,

volutpat bibendum, ullamcorper in, imperdiet vel, purus.

euismod tortor interdum consectetuer. Mauris rutrum leo

Aliquam egestas sollicitudin mauris. Maecenas quis massa

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eu enim a eros tristique varius.

adipiscing erat.

### Take-home message

WedneTuesday, 10 May, 2017

Before starting, you have to install R, RStudio, bookdown pack-

age, and other software and packages (i.e. Pandoc, LATEX, rmarkdown

rticle, knitr, etc.) which bookdown depends on. See the of-

If you are ready, download bookdown+ package as a zip file

from Github. Unzip it to a folder in your PC. You will find a file

named \_start.Rproj. Double click it, and it will be opened

OK, now you can see a \_runme.R file as well. Open it and

run the script, or follow my explanation as follows,

0.2 Step 1. Title and author

0.4 Step 3: Write and Build

Now you can press ctrl+shift+b to build a demo book, which

Write your own text in body. Rmd, and build your own lovely

book, or whatever.

Run fun/build.R

vou can find in book/

0.3 Step 2: Template

0.1 Step 0. Preparation

- ▶ R bookdown+ is an extension of bookdown for academic and literal writing, especially for reproducible reports.
- ▶ R bookdown+ is still being developed. Feel free to join me either in contributing templates to my **Github repo**  $^{a}$ , or in writing the tutorial of R bookdown+ (Zhao, 2017).

<sup>a</sup>https://github.com/dapengde/bookdown-plus

### Acknowledgements

Many thanks to Dr. Yihui Xie for his amazing generosity and incredible patience in helping me get into the world of R bookdown.

The open source codes from Github and R community are much appreciated.