# Un libro

To Shao Yong (邵雍), for sharing a secret joy with simple words;

月到天心处,风来水面时。 一般清意味,料得少人知。

and

To Hongzhi Zhengjue (宏智禅师), for sharing the peace of an ending life with simple words.

梦幻空华,六十七年;白鸟淹没,秋水连天。

# Índice general $\mathbf{I}$

| Prerequisites                           | V             |
|---|---------------|
| Prerequisites XeLaTeX                   | <b>V</b><br>V |
| About the Author                        | VII           |
| About the Author                        | VII           |
| Introduction                            | IX            |
| Introduction                            | IX            |
| 1. Literature                           | 1             |
| 2. Methods                              | 3             |
| Apéndice                                | 3             |
| A. Example one         A.1. Example two | <b>5</b> 5    |
| B. Example onewwwww                     | 7             |
| C. Components C.1. Markdown syntax      | <b>9</b>      |
| D. Final Words                          | 11            |
| Ribliografía                            | 13            |

### Prerequisites

This is a *sample* book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation  $a^2 + b^2 = c^2$ .

The bookdown package can be installed from CRAN or Github:

```
install.packages("bookdown")
# or the development version
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading #.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.org/tinytex/.

#### XeLaTeX

This is a sample book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation  $a^2 + b^2 = c^2$ .

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")
# or the development version
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading #.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.org/tinytex/.

#### About the Author

Yihui Xie (http://yihui.org) is a software engineer at RStudio (http://www.rstudio.com). He earned his PhD from the Department of Statistics, Iowa State University. He is interested in interactive statistical graphics and statistical computing. As an active R user, he has authored several R packages, such as knitr, bookdown, blogdown, animation, DT, tinytex, tufte, formatR, fun, mime, highr, servr, and Rd2roxygen, among which the animation package won the 2009 John M. Chambers Statistical Software Award (ASA). He also co-authored a few other R packages, including shiny, rmarkdown, and leaflet.

In 2006, he founded the Capital of Statistics (https://cosx.org), which has grown into a large online community on statistics in China. He initiated the Chinese R conference in 2008, and has been involved in organizing R conferences in China since then. During his PhD training at Iowa State University, he won the Vince Sposito Statistical Computing Award (2011) and the Snedecor Award (2012) in the Department of Statistics.

He occasionally rants on Twitter (https://twitter.com/xieyihui), and most of the time you can find him on GitHub (https://github.com/yihui).

He enjoys spicy food as much as classical Chinese literature.

## Introduction

You can label chapter and section titles using {#label} after them, e.g., we can reference. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter 2.

Figures and tables with captions will be placed in figure and table environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

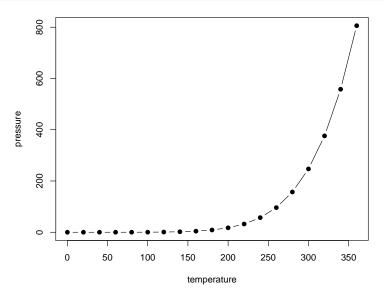


Figura 1 Here is a nice figure!

Reference a figure by its code chunk label with the fig: prefix, e.g., see Figure 1. Similarly, you can reference tables generated from knitr::kable(), e.g., see Table 0.1.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

X Introduction

Cuadro 0.1 Here is a nice table!

| 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  |
| 4.6          | 3.4         | 1.4          | 0.3         | setosa  |
| 5.0          | 3.4         | 1.5          | 0.2         | setosa  |
| 4.4          | 2.9         | 1.4          | 0.2         | setosa  |
| 4.9          | 3.1         | 1.5          | 0.1         | setosa  |
| 5.4          | 3.7         | 1.5          | 0.2         | setosa  |
| 4.8          | 3.4         | 1.6          | 0.2         | setosa  |
| 4.8          | 3.0         | 1.4          | 0.1         | setosa  |
| 4.3          | 3.0         | 1.1          | 0.1         | setosa  |
| 5.8          | 4.0         | 1.2          | 0.2         | setosa  |
| 5.7          | 4.4         | 1.5          | 0.4         | setosa  |
| 5.4          | 3.9         | 1.3          | 0.4         | setosa  |
| 5.1          | 3.5         | 1.4          | 0.3         | setosa  |
| 5.7          | 3.8         | 1.7          | 0.3         | setosa  |
| 5.1          | 3.8         | 1.5          | 0.3         | setosa  |

Introduction

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2020) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).

## 1

## Literature

Here is a review of existing methods.

#### 2

## Methods

We describe our methods in this chapter.

Some significant applications are demonstrated in this chapter.

## A

## Example one

### A.1. Example two

#### A.2. Example twowwww

# $\mathbf{B}$

Example onewwwww

## Components

This chapter demonstrates the syntax of common components of a book written in **bookdown**, including code chunks, figures, tables, citations, math theorems, and equations. The approach is based on Pandoc, so we start with the syntax of Pandoc's flavor of Markdown.

#### C.1. Markdown syntax

In this section, we give a very brief introduction to Pandoc's Markdown. Readers who are familiar with Markdown can skip this section. The comprehensive syntax of Pandoc's Markdown can be found on the Pandoc website http://pandoc.org.

#### $\prod$

## Final Words

We have finished a nice book.

## Bibliografía

Xie, Y. (2015). Dynamic Documents with R and knitr. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition. ISBN 978-1498716963.

Xie, Y. (2020). bookdown: Authoring Books and Technical Documents with R Markdown. R package version 0.18.

# Índice alfabético

Markdown, 9

Pandoc, 9