



中国矿业大学 (北京)

China University of Mining & Technology, Beijing

# 一份不太简短的 R 语言介绍

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黄湘云

**1. R 的前世今生**

**2. SPSS 的替代品**

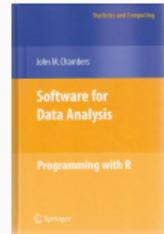
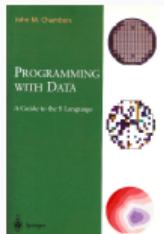
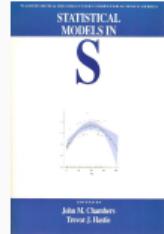
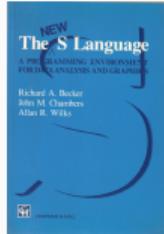
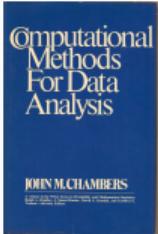
# R 的前世今生

## 来自何方

R was inspired by the S environment which has been principally developed by [John Chambers](#), with substantial input from Douglas Bates, [Rick Becker](#), Bill Cleveland, [Trevor Hastie](#), Daryl Pregibon and Allan Wilks.

# 来自何方

PROGRAMMING WITH DATA FROM 1977 TO 2016



Thanks to John Chambers for high-resolution cover images. The publication years are, respectively, 1977, 1988, 1992, 1998, 2008 and 2016.

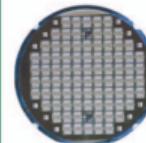
Talk @ Civis, Oct 2017

6/78

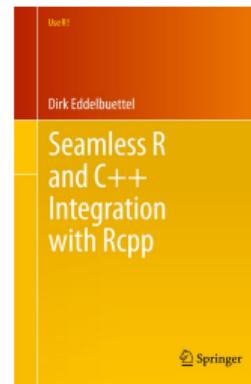
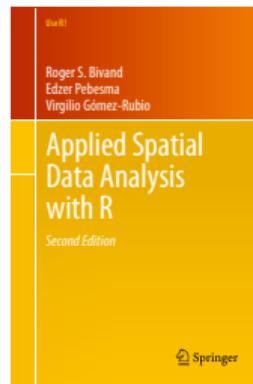
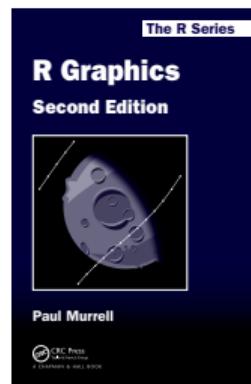
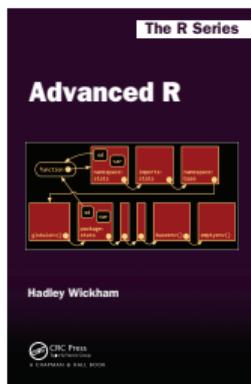
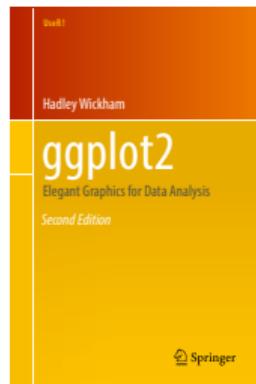
John M. Chambers

PROGRAMMING  
WITH DATA

A Guide to the S Language



# 来自何方



- 图片来自 <http://www.springer.com/> 和 <https://www.crcpress.com/>
- 官网 <https://www.r-project.org/doc/bib/R-books.html> 目前收录 162 本

## 创世者

R was initially written by **Robert Gentleman** and **Ross Ihaka** also known as **R & R** of the Statistics Department of the University of Auckland.

- Robert Gentleman joined [23andMe](#) in 2015 as VP of computational biology
- Ross Ihaka

# 何去何从

## 1. 要到哪里去

R is **GNU S**, a freely available language and environment for statistical computing (统计计算) and graphics (统计图形)

- 1997 年 4 月 23 日发布版本 0.49 至 2017 年 9 月 28 日发布版本 3.4.2 (已历 20 载)

## 2. 现在做了什么

R provides a wide variety of statistical and graphical techniques: linear and nonlinear modelling, statistical tests, time series analysis, classification, clustering, etc.

- 可以看看 CRAN 的 [TaskViews](#) 栏目
- 还可以看看 [Bioconductor](#) 官网

## **SPSS 的替代品**

## Rattle: A GUI for Data Mining using R [2]

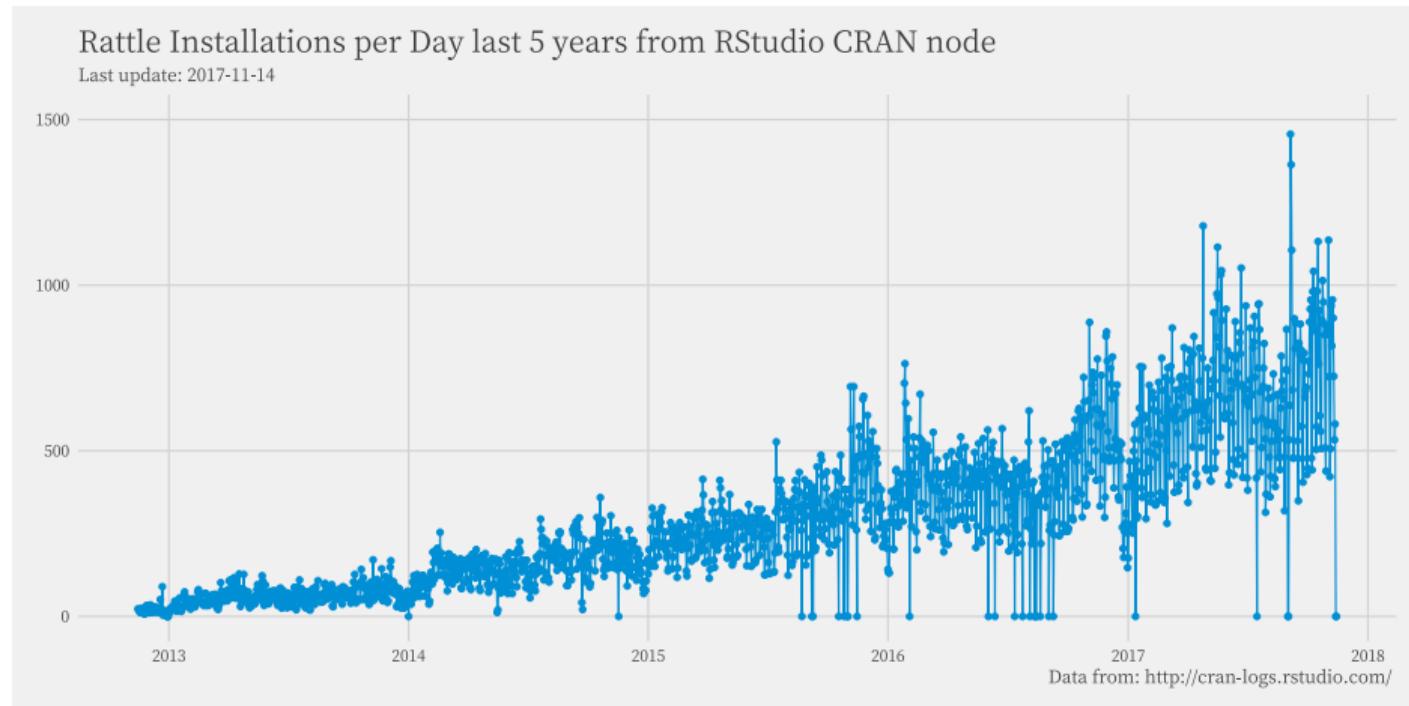


图 1: rattle 每日下载量

## Rcmdr: A platform-independent basic-statistics GUI for R [1]

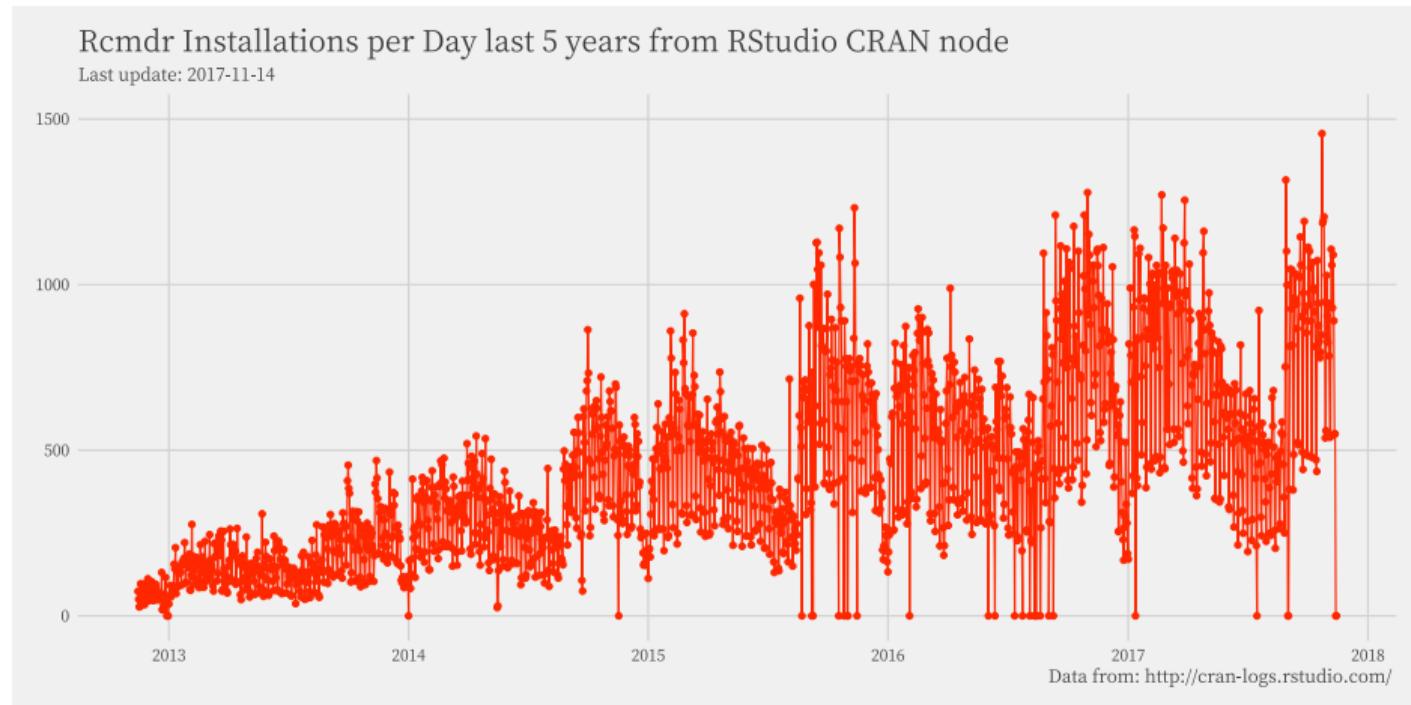


图 2: Rcmdr 每日下载量

# Rcmdr 用户界面

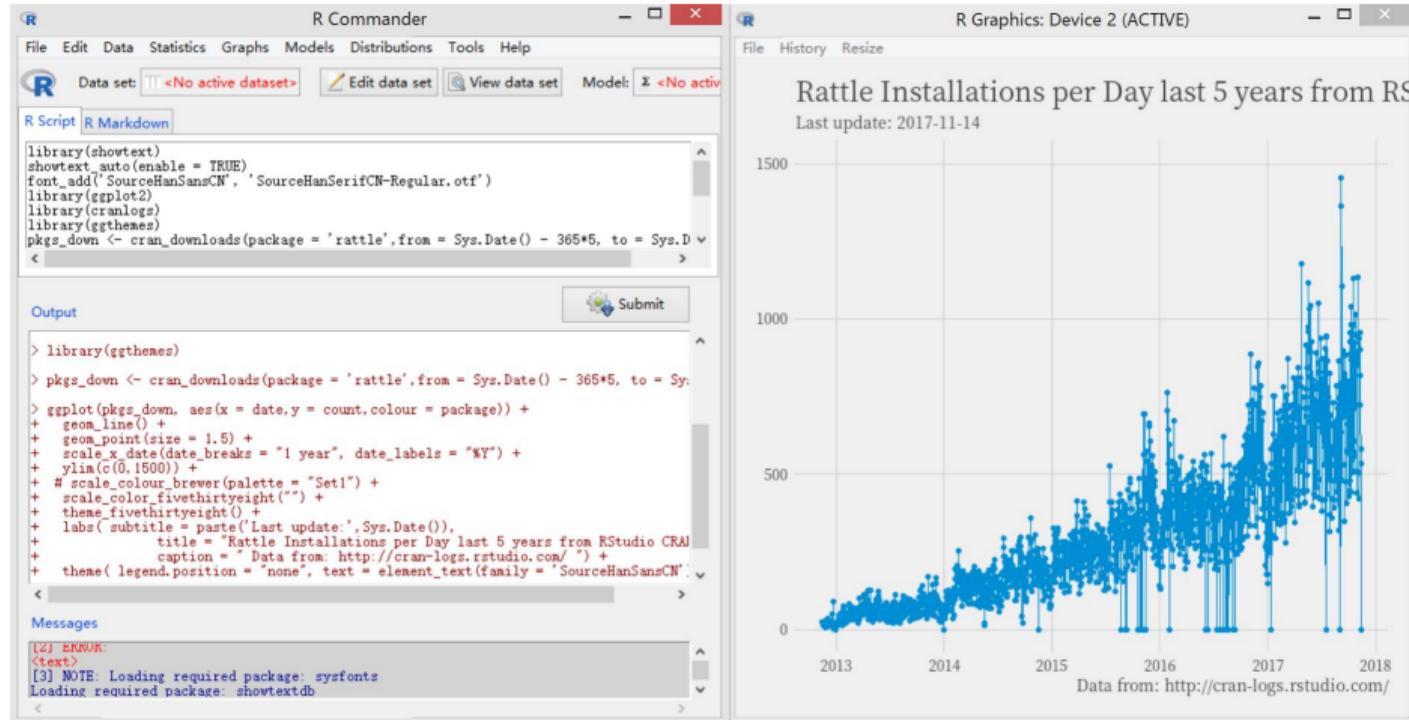


图 3: Rcmdr 用户界面

## 致谢

- 谢益辉 <https://yihui.name/> for knitr [4] and bookdown [3]
- 统计之都 <https://cosx.org/>
- 论坛 <https://d.cosx.org/>

## Q & A

-  Cloud2016
-  Capital of Statistics
-  <https://cosx.org/members/>

# 附录

# 谢益辉

- 🌐 个人主页 <http://yihui.name/>
- 🐧 个人主页 <https://github.com/yihui/>

- [1] John Fox. *Using the R Commander: A Point-and-Click Interface for R*. Boca Raton FL: Chapman and Hall/CRC Press, 2017. URL:  
<http://socserv.mcmaster.ca/jfox/Books/RCommander/>.
- [2] Graham J. Williams. *Data Mining with Rattle and R: The art of excavating data for knowledge discovery*. Use R! Springer, 2011. URL: <https://rattle.togaware.com/>.
- [3] Yihui Xie. *bookdown: Authoring Books and Technical Documents with R Markdown*. ISBN 978-1138700109. Boca Raton, Florida: Chapman and Hall/CRC, 2016. URL:  
<https://github.com/rstudio/bookdown>.
- [4] Yihui Xie. *Dynamic Documents with R and knitr*. 2nd. ISBN 978-1498716963. Boca Raton, Florida: Chapman and Hall/CRC, 2015. URL: <https://yihui.name/knitr/>.