

1. Record Nr.	UNINA9910300650103321
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Titolo	Beginning R : an introduction to statistical programming // Dr. Joshua F. Wiley, Larry A. Pace
Pubbl/distr/stampa	Berkeley, CA : , : Apress, , [2015] ©2015
ISBN	9781484203736 1484203739
Edizione	[Second edition]
Descrizione fisica	1 online resource (337 pages) : illustrations
Collana	The expert's voice in programming
Disciplina	004
Soggetti	Programming languages (Electronic computers) Computer software R (Computer program language) R (Llenguatge de programació) Programming Languages, Compilers, Interpreters Mathematical Software
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents at a Glance; Contents; About the Author; In Memoriam; About the Technical Reviewer; Acknowledgments; Introduction; Chapter 1: Getting Star ted; 1.1 What is R, Anyway?; 1.2 A First R Session; 1.3 Your Second R Session; 1.3.1 Working with Indexes; 1.3.2 Representing Missing Data in R; 1.3.3 Vectors and Vectorization in R; 1.3.4 A Brief Introduction to Matrices; 1.3.5 More on Lists; 1.3.6 A Quick Introduction to Data Frames; Chapter 2: Dealing with Dates, Strings, and Data Frames; 2.1 Working with Dates and Times; 2.2 Working with Strings Chapter 5: Functional Programming 5.1 Scoping Rules; 5.2 Reserved Names and Syntactically Correct Names; 5.3 Functions and Arguments; 5.4 Some Example Functions; 5.4.1 Guess the Number; 5.4.2 A Function with Arguments; 5.5 Classes and Methods; 5.5.1 S3 Class and Method Example; 5.5.2 S3 Methods for Existing Classes; Chapter 6: Probability Distributions; 6.1 Discrete Probability Distributions; 6.2 The Binomial Distribution; 6.2.1 The Poisson Distribution; 6.2.2 Some

Other Discrete Distributions; 6.3 Continuous Probability Distributions; 6.3.1 The Normal Distribution 6.3.2 The t Distribution 6.3.3 The F distribution; 6.3.4 The Chi-Square Distribution; References; Chapter 7: Working with Tables; 7.1 Working with One-Way Tables; 7.2 Working with Two-Way Tables; Chapter 8: Descriptive Statistics and Exploratory Data Analysis; 8.1 Central Tendency ; 8.1.1 The Mean; 8.1.2 The Median; 8.1.3 The Mode; 8.2 Variability ; 8.2.1 The Range; 8.2.2 The Variance and Standard Deviation ; 8.3 Boxplots and Stem-and-Leaf Displays ; 8.4 Using the fBasics Package for Summary Statistics; References; Chapter 9: Working with Graphics 9.1 Creating Effective Graphics 9.2 Graphing Nominal and Ordinal Data; 9.3 Graphing Scale Data; 9.3.1 Boxplots Revisited ; 9.3.2 Histograms and Dotplots; 9.3.3 Frequency Polygons and Smoothed Density Plots; 9.3.4 Graphing Bivariate Data; References; Chapter 10: Traditional Statistical Methods; 10.1 Estimation and Confidence Intervals; 10.1.1 Confidence Intervals for Means; 10.1.2 Confidence Intervals for Proportions; 10.1.3 Confidence Intervals for the Variance; 10.2 Hypothesis Tests with One Sample; 10.3 Hypothesis Tests with Two Samples; References Chapter 11: Modern Statistical Methods

Sommario/riassunto

Beginning R, Second Edition is a hands-on book showing how to use the R language, write and save R scripts, read in data files, and write custom statistical functions as well as use built in functions. This book shows the use of R in specific cases such as one-way ANOVA analysis, linear and logistic regression, data visualization, parallel processing, bootstrapping, and more. It takes a hands-on, example-based approach incorporating best practices with clear explanations of the statistics being done. It has been completely re-written since the first edition to make use of the latest packages and features in R version 3. R is a powerful open-source language and programming environment for statistics and has become the de facto standard for doing, teaching, and learning computational statistics. R is both an object-oriented language and a functional language that is easy to learn, easy to use, and completely free. A large community of dedicated R users and programmers provides an excellent source of R code, functions, and data sets, with a constantly evolving ecosystem of packages providing new functionality for data analysis. R has also become popular in commercial use at companies such as Microsoft, Google, and Oracle. Your investment in learning R is sure to pay off in the long term as R continues to grow into the go to language for data analysis and research. What You Will Learn: How to acquire and install R How to import and export data and scripts How to analyze data and generate graphics How to program in R to write custom functions How to use R for interactive statistical explorations How to conduct bootstrapping and other advanced techniques.
