

1. Record Nr.	UNINA9910645887003321
Autore	Zelterman Daniel
Titolo	Applied Multivariate Statistics with R // by Daniel Zelterman
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	9783031130052 9783031130045
Edizione	[2nd ed. 2022.]
Descrizione fisica	1 online resource (469 pages)
Collana	Statistics for Biology and Health, , 2197-5671
Disciplina	570.285 519.53502855133
Soggetti	Biometry Bioinformatics Epidemiology Biostatistics Anàlisi multivariable Processament de dades R (Llenguatge de programació) Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1. Introduction -- Chapter 2. Elements of R -- Chapter 3. Graphical Displays -- Chapter 4. Basic Linear Algebra -- Chapter 5. The Univariate Normal Distribution -- Chapter 6. Bivariate Normal Distribution -- Chapter 7. Multivariate Normal Distribution -- Chapter 8. Factor Methods -- Chapter 9. Multivariate Linear Regression -- Chapter 10. Discrimination and Classification -- Chapter 11. Clustering Methods -- Chapter 12. Basic Models for Longitudinal Data -- Chapter 13. Time Series Models -- Chapter 14. Other Useful Methods.
Sommario/riassunto	Now in its second edition, this book brings multivariate statistics to graduate-level practitioners, making these analytical methods accessible without lengthy mathematical derivations. Using the open source shareware program R, Dr. Zelterman demonstrates the process and outcomes for a wide array of multivariate statistical applications.

Chapters cover graphical displays; linear algebra; univariate, bivariate and multivariate normal distributions; factor methods; linear regression; discrimination and classification; clustering; time series models; and additional methods. He uses practical examples from diverse disciplines, to welcome readers from a variety of academic specialties. Each chapter includes exercises, real data sets, and R implementations. The book avoids theoretical derivations beyond those needed to fully appreciate the methods. Prior experience with R is not necessary. New to this edition are chapters devoted to longitudinal studies and the clustering of large data. It is an excellent resource for students of multivariate statistics, as well as practitioners in the health and life sciences who are looking to integrate statistics into their work.
