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Autore	Zelterman Daniel
Titolo	Applied multivariate statistics with R // by Daniel Zelterman
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ISBN	3-319-14093-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (401 p.)
Collana	Statistics for Biology and Health, , 1431-8776
Disciplina	519.535
Soggetti	Statistics Biometry Epidemiology Bioinformatics Systems biology R (Computer program language) Statistics for Life Sciences, Medicine, Health Sciences Biostatistics Systems Biology
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	Introduction -- Elements of R -- Graphical Displays -- Basic Linear Algebra -- The Univariate Normal Distribution -- Bivariate Normal Distribution -- Multivariate Normal Distribution -- Factor Methods -- Multivariate Linear Regression -- Discrimination and Classification -- Clustering -- Time Series Models -- Other Useful Methods -- References -- Appendix -- Selected Solutions -- Index.
Sommario/riassunto	This book brings the power of multivariate statistics to graduate-level practitioners, making these analytical methods accessible without lengthy mathematical derivations. Using the open source, shareware program R, Professor 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. Zelterman uses practical examples from diverse disciplines to welcome readers from a variety of academic specialties. Those with backgrounds in statistics will learn new methods while they review more familiar topics. Chapters include exercises, real data sets, and R implementations. The data are interesting, real-world topics, particularly from health and biology-related contexts. As an example of the approach, the text examines a sample from the Behavior Risk Factor Surveillance System, discussing both the shortcomings of the data as well as useful analyses. The text avoids theoretical derivations beyond those needed to fully appreciate the methods. Prior experience with R is not necessary. .
