

1. Record Nr.	UNINA9910634035603321
Autore	Rotondi Alberto
Titolo	Probability, Statistics and Simulation : With Application Programs Written in R // by Alberto Rotondi, Paolo Pedroni, Antonio Pievatolo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-09429-8
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (643 pages)
Collana	La Matematica per il 3+2, , 2038-5757 ; ; 139
Disciplina	519.50285 519.5
Soggetti	Statistics Probabilities Applied Probability
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Probability -- 2 Representation of random phenomena -- 3 Basic probability theory -- 4 Multivariate Probability Theory -- 5 Functions of random variables -- 6 Basic statistics: parameter estimation -- 7 Basic statistics: hypothesis testing -- 8 Monte Carlo methods -- 9 Applications of Monte Carlo methods -- 10 Statistical inference and likelihood -- 11 Least squares -- 12 Experimental data analysis -- Appendix A: Table of symbols 533 -- Appendix B: R software 535 -- Appendix C: Moment-generating functions 539 -- Appendix D: Solutions of problems 543 -- Appendix E: Tables.
Sommario/riassunto	This book presents in a compact form the program carried out in introductory statistics courses and discusses some essential topics for research activity, such as Monte Carlo simulation techniques, methods of statistical inference, best fit and analysis of laboratory data. All themes are developed starting from fundamentals, highlighting their applicative aspects, up to the detailed description of several cases particularly relevant for technical and scientific research. The text is dedicated to university students in scientific fields and to all researchers who have to solve practical problems by applying data analysis and simulation procedures. The R software is adopted throughout the book, with a rich library of original programs accessible

to the readers through a website.

---