

1. Record Nr.	UNISALENTO991000566569707536
Autore	Baddeley, Adrian
Titolo	Stochastic geometry [e-book] : lectures given at the C.I.M.E. Summer School held in Martina Franca, Italy, September 13-18, 2004 / A. Baddeley ... [et al.] ; editor: W. Weil
Pubbl/distr/stampa	Berlin : Springer, 2007
ISBN	9783540381754
Descrizione fisica	v.: digital
Collana	Lecture notes in mathematics, 0075-8434 ; 1892
Classificazione	AMS 60D05 LC QA273.5
Altri autori (Persone)	Weil, Wolfgang
Disciplina	519.2
Soggetti	Discrete groups Distribution (Probability theory) Global differential geometry
Lingua di pubblicazione	Inglese
Formato	Software
Livello bibliografico	Monografia

2. Record Nr.	UNINA9910899895303321
Autore	Beltrami Edward
Titolo	Digressions in Elementary Probability : The Unexpected in Medicine, Sports, and Society / / by Edward Beltrami
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-70051-1
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (118 pages)
Collana	Quantitative Methods in the Humanities and Social Sciences, , 2199-0964
Disciplina	519.2
Soggetti	Social sciences - Statistical methods Statistics Multivariate analysis Statistics in Social Sciences, Humanities, Law, Education, Behavioral Sciences, Public Policy Bayesian Network Probabilitats Ciències socials Estadística matemàtica Multivariate Analysis Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Success Runs in Bernoulli Trials -- Chapter 2. The Remarkable Streak of Joe Di Maggio -- Chapter 3. Inherited, Not Acquired -- Chapter 4. A Subtle Bias -- Chapter 5. Addendum : Conditional Expectation -- Chapter 6. Hot Hands in Basketball -- Chapter 7. Restricted Choice -- Chapter 8. Another Conundrum : What Does Crowd Size at Wimbledon's Tennis Match Tell us About Baseball Batting Averages?- Chapter 9. Cancer Clusters -- Chapter 10. Medical Mis-Readings -- Chapter 11. The Wrong Conclusion -- Chapter 12. Clinical Trials -- Chapter 13. Margin of Error -- Chapter 14. What Are the Odds of That?- Chapter 15. Turing's Evidence -- Chapter 16. Bell's Inequality -- Chapter 17. The Paradox of Random Arrivals -- Chapter 18. The Inverse Square Root Law -- Chapter 19. Runs, Again -- Chapter 20. Addendum :

This book is about the interplay between chance and order, but limited to mostly binary events, such as success/failure as they occur in a diversity of interesting applications. The goal is to entertain and instruct with topics that range from unexpected encounters with chance in everyday experiences, to significant “must know” insights regarding human health and other concerns in the social sciences. The first section provides the tools for being able to discuss random sequences with hints at what is to follow. This is followed by another surprising and, to some extent, bizarre result known as Stein’s Paradox, which is applied to baseball. The troublesome topic of disease clusters, namely to decide whether the clumping of events is due to chance or some environmental cause, is treated using both the Poisson and normal approximations to the binomial distribution and this leads naturally into a discussion of the base rate fallacy and a case study of hospital performance. Next, another medical case study this time concerning some tricky questions about the effectiveness of colonoscopy and other medical interventions. A brief discussion of the mathematics of clinical trials, follows. Then, the book examines the error in random sampling, when polling for candidate preference with specific current examples. The essential tool here is covariance of random variables. The author follows this with a treatment of the spooky quality of coincidence using appropriate mathematical tools. After this, code breaking at Bletchley Park using Baye’s theorem. It returns to Poisson events to discuss another unexpected result, followed by the use of spatial Poisson events in the delivery of emergency response services. Finally, an account of fluctuations that occur in a run of Bernoulli trials as a bookend to the very first section of the book. The probability theory involved is elementary using the binomial theorem and its extensions to Poisson and normal events in addition to conditional probability and covariance. The author provides an optional brief tutorial at the end, that covers the basic ideas in probability and statistics needed in the main text. Besides a list of references, several codes written in Matlab that were used to illustrate various topics in the text, as well as to support several figures that appear throughout, are provided.
