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Collana	Wiley series in probability and statistics
Altri autori (Persone)	ClarkeWilliam R (William Radue)
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Nota di bibliografia	Includes bibliographies and index.
Nota di contenuto	Statistical Methods for the Analysis of Biomedical Data; Dedication; Contents; Preface to the 1987 Edition; Preface to the 2002 Edition; Acknowledgments; 1 Introduction; 1.1 Overview of Statistics; 1.2 A Designed Experiment; 1.2.1 Order of Interviewing (Randomization); 1.2.2 Possible Outcomes of the Experiment (Sample Space); 1.3 Scope and Organization of Book; References; 2 Descriptive Statistics; 2.1 Introduction; 2.2 Classification of Variables; 2.3 Representing Data with Notation; 2.4 Central Tendency of a Set of Data; 2.5 Variability in a Set of Data; 2.6 Pictorial Data Representation 2.7 Sample Description with Grouped Data2.8 Tabulation and Graphing of Grouped Data; 2.9 Summary Statistics for Grouped Data; 2.10 Using SAS for Computations; 2.11 Summary; Problems; References; 3 Basic Probability Concepts; 3.1 Introduction; 3.2 Probability; 3.2.1 Probability Defined; 3.2.2 Addition Rule; 3.2.3 Conditional Probability and Multiplication Rule; 3.3 Bayes' Theorem: A Useful Result from Probability Theory; 3.4 Probability Distributions and Random Variables; 3.5 Summary; Problems; References; 4 Further Aspects of Probability;

4.1 Introduction

4.2 Populations, Samples, and Random Samples; 4.3 Parameters and Statistics; 4.4 Permutations and Combinations: Factorial Notation; 4.5 Some Discrete Probability Distributions; 4.5.1 Binomial Distribution; 4.5.2 Poisson Distribution; 4.5.3 Hypergeometric Distribution; 4.5.4 Multinomial Distribution; 4.6 Normal Probability Distribution; 4.7 Sampling Distributions: Probability Distributions Generated by Random Sampling; 4.8 The t , z , and F Probability Distributions; 4.9 Summary; Problems; References; 5 Confidence Intervals and Hypothesis Testing: General Considerations and Applications

5.1 Introduction; 5.2 Estimation of Population Characteristics: Point and Interval Estimation; 5.2.1 Confidence Interval for a Population Mean with Variance σ^2 Known; 5.2.2 Confidence Interval for a Population Mean with Variance σ^2 Unknown; 5.2.3 Confidence Interval for the Variance σ^2 of a Normal Population; 5.2.4 Confidence Interval for a Binomial Proportion p ; 5.3 Testing Statistical Hypotheses; 5.3.1 Hypothesis Testing for a Population Mean μ Known; 5.3.2 Hypothesis Testing for a Population Mean μ Unknown; 5.3.3 Hypothesis Testing for a Normal Population Variance σ^2

5.3.4 Hypothesis Testing for Binomial Parameter p ; 5.4 Using SAS for Computations; 5.5 Summary; Problems; References; 6 Comparison of Two Groups: t -Tests and Rank Tests; 6.1 Introduction; 6.2 Use of t -Tests for Group Comparisons; 6.2.1 Paired t -Test for Comparing Means: A Test for Matched Pairs; 6.2.2 Two-Sample t -Test for Comparing Means: A Test for Two Independent Groups; 6.2.3 Cochran-Cox t -Test for Equality of Means: A Modified t -Test for Two Independent Groups; 6.2.4 The F -Test for Equality of Variances: A Test for Two Independent Groups; 6.2.5 Transformation of Data to Equalize Variance

6.3 Use of Rank Tests for Group Comparisons

Sommario/riassunto

The new edition adds a chapter on multiple linear regression in biomedical research, with sections including the multiple linear regressions model and least squares; the ANOVA table, parameter estimates, and confidence intervals; partial f -tests; polynomial regression; and analysis of covariance.* Organized by problem rather than method, so it guides readers to the correct technique for solving the problem at hand.
