Record Nr. UNINA9910139565203321 Exploring data tables, trends, and shapes [[electronic resource] /] / **Titolo** edited by David C. Hoaglin, Frederick Mosteller, John W. Tukey Pubbl/distr/stampa Hoboken, N.J.,: Wiley-Interscience, 2006 **ISBN** 1-283-33238-8 9786613332387 1-118-15070-8 1-118-15069-4 Edizione [1st ed.] Descrizione fisica 1 online resource (564 p.) Wiley series in probability and statistics Collana HoaglinDavid C <1944-> (David Caster) Altri autori (Persone) MostellerFrederick <1916-2006.> TukeyJohn W <1915-2000.> (John Wilder) Disciplina 519.5 Soggetti Mathematical statistics Electronic books. 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 Exploring Data Tables, Trends, and Shapes; Contents; 1. THEORIES OF DATA ANALYSIS: FROM MAGICAL THINKING THROUGH CLASSICAL STATISTICS; 1A. Intuitive Statistics-Some Inferential Problems; 1B. Multiplicity-A Pervasive Problem; 1C. Some Remedies; 1D. Theories for Data Analysis; 1E. Uses for Mathematics; 1F. In Defense of Controlled Magical Thinking; 2. FITTING BY ORGANIZED COMPARISONS: THE SQUARE COMBINING TABLE; 2A. Combining Comparisons; 2B. Two-Way Tables; 2C. Paired Comparisons; 2D. Analyzing Tables Containing Holes; 2E. Summary; Exercises; 3. RESISTANT NONADDITIVE FITS FOR TWO-WAY TABLES 3A. The Simple Additive Model and Median Polish3B. One Step Beyond an Additive Fit; 3C. Assessing and Comparing Fits; 3D. Multiplicative Fits; 3E. Techniques for Obtaining Simple Multiplicative Fits; 3F. Additive-Plus-Multiplicative Fits; 3G. Some Background for Nonadditive Fits; 3H. Summary; Exercises; 4. THREE-WAY ANALYSES; 4A. Structure of the Three-Way Table; 4B. Decompositions and Models for Three-Way Analysis; 4C. Median-Polish Analysis for the Main-Effects-Only Case;

4D. Nonadditivity and a Diagnostic Plot in Main-Effects-Only Analysis; 4E. Analysis Using Means

4F. Median-Polish Analysis for the Full-Effects Case4G. Diagnostic Plots for the Full-Effects Case; 4H. Fitting the Full-Effects Model by Means; 41. Computation, Other Polishes, and Missing Values; 4J. Summary; Exercises; 5. IDENTIFYING EXTREME CELLS IN A SIZABLE CONTINGENCY TABLE: PROBABILISTIC AND EXPLORATORY APPROACHES; 5A. The Hypergeometric Distribution; 5B. Assessing Outliers; 5C. The Simulation Approach: 5D. Applying the Simulation Approach to the Table of Archaeological Data; 5E. An Exploratory Approach, Based on Deviations from Independence; 5F. A Logarithmic Exploratory Approach 5G. Illustrations of the New Standardization5H. Summary: 5I. Conclusion: 6. FITTING STRAIGHT LINES BY EYE; 6A. Method: 6B. Results: 6C. Summary: 7. RESISTANT MULTIPLE REGRESSION, ONE VARIABLE AT A TIME; 7A. Resistant Lines; 7B. Sweeping Out; 7C. Example; 7D. When Carriers Come in Blocks; 7E. Summary; Exercises; 8. ROBUST REGRESSION; 8A. Why Robust Regression?; 8B. M-Estimators and W-Estimators for Regression; 8C. Computation; 8D. Example: The Stack Loss Data; 8E. Bounded-Influence Regression; 8F. Some Alternative Methods; 8G. Summary; Exercises; 9. CHECKING THE SHAPE OF DISCRETE DISTRIBUTIONS 9A. A Poissonness Plot9B. Confidence Intervals for the Count Metameter; 9C. When Is a Point Discrepant?; 9D. Overall Plots for Other Families of Distributions; 9E. Frequency-Ratio Alternatives; 9F. Cooperative Diversity: 9G. Double-Root Residuals: 9H. Summary: Exercises; 10. USING QUANTILES TO STUDY SHAPE; 10A. Diagnosing

Elongation
11C. Combining Skewness and Elongation

## Sommario/riassunto

WILEY-INTERSCIENCE PAPERBACK SERIES The Wiley-Interscience Paperback Series consists of selected books that have been made more accessible to consumers in an effort to increase global appeal and general circulation. With these new unabridged softcover volumes, Wiley hopes to extend the lives of these works by making them available to future generations of statisticians, mathematicians, and scientists. ""Exploring Data Tables, Trends, and Shapes (EDTTS) was written as a companion volume to the same editors' book, Understanding Robust and Exploratory Data Analysis (UREDA

Skewness; 10B. Diagnosing Elongation; 10C. Quantile-Quantile Plots; 10D. Plots for Skewness and Elongation; 10E. Pushback Analysis; 10F. Summary; 10G. Appendix; Exercises; 11. SUMMARIZING SHAPE NUMERICALLY: THE g-AND-h DISTRIBUTIONS; 11A. Skewness; 11B.