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Nota di contenuto	Aspects of Statistical Inference; Contents; Preface; Acknowledgments; 1. Statistical Models; 1.1 Substantive Problems; 1.2 Initially Plausible Models; 1.3 Classes of Models; 1.4 Statistical Inference; 1.5 Informal Inferences; 1.6 Inductive Argument; 2. Bayesian, Fiducial and Likelihood Inference; 2.1 The Bayesian Paradigm; 2.2 Prior Distributions; 2.3 The Effect of Caffeine on the Volume of Urine; 2.4 Improper Priors; 2.5 Bayesian Hypothesis Testing; 2.6 Fiducial Theory; 2.7 Likelihood Theory; 3. Frequentist Inference; 3.1 Point Estimation; 3.2 Significance Tests; 3.3 Hypothesis Testing 3.4 Implementing Tests3.5 Likelihood Ratio, Likelihood, and Bayesian Tests; 3.6 Confidence Sets; 3.7 Confidence Sets from Discrete Data; 3.8 The Behrens-Fisher and Fieller-Creasy Problems; 3.9 Conditional Inference; 3.10 Simulation; 4. Large Sample Theory; 4.1 Approximate Confidence Intervals; 4.2 Multiparameter Problems; 4.3 The Choice of Inference Procedure; 4.4 Improving the Gaussian Approximation; 4.5 Hypothesis Testing; 4.6 Likelihood and Bayesian Theory; 5. Robust Inference; 5.1 The Standard Deviation; 5.2 Departures from Independence; 5.3 Robustness Theory

5.4 Bounded Influence Estimation; 5.5 Corrosion Resistance of Steel Plates; 5.6 Tests Based on M-estimators; 5.7 Other Approaches to Distributional Robustness; 5.8 Likelihood and Bayesian Theory; 6. Randomization and Resampling; 6.1 Experimental Design; 6.2 Randomization Models; 6.3 Randomization Tests; 6.4 The Randomization Basis for Gaussian Model-Based Tests; 6.5 Inference for Finite Populations; 6.6 Permutation Tests; 6.7 The Bootstrap; 6.8 Other Resampling Methods; 6.9 Nonparametric Methods; 7. Principles of Inference; 7.1 The Coherency Principle; 7.2 The Likelihood Principle; 7.3 The Sufficiency Principle; 7.4 The Conditionality Principle; 7.5 The Development of the Likelihood Principle; 7.6 The Repeated Sampling Principle; 7.7 Other Principles; Appendix: Some Useful Facts; References; Author Index; Data and Analysis Index; Subject Index

Sommario/riassunto

Relevant, concrete, and thorough--the essential data-based text on statistical inference. The ability to formulate abstract concepts and draw conclusions from data is fundamental to mastering statistics. Aspects of Statistical Inference equips advanced undergraduate and graduate students with a comprehensive grounding in statistical inference, including nonstandard topics such as robustness, randomization, and finite population inference. A. H. Welsh goes beyond the standard texts and expertly synthesizes broad, critical theory with concrete data and relevant topics. The text follows
