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the Components; 5.3.2 Power Study; 5.3.3 Diagnostic Tests; 5.3.4 Cressie and Read Tests; 5.4 Examples; 5.5 Class Construction
5.5.1 The Alternatives5.5.2 Results of the Simulation Study; 5.5.3 Discussion; 5.6 A More Comprehensive Class of Tests; 5.7 Overlapping Cells Tests; 6 Neyman Smooth Tests for Uncategorized Composite Null Hypotheses; 6.1 Neyman Smooth Tests for Uncategorized Composite Null Hypotheses; 6.2 Smooth Tests for the Univariate Normal Distribution; 6.2.1 The Construction of the Smooth Test; 6.2.2 Simulation Study; 6.2.3 Examples; 6.2.4 Relationship with a Test of Thomas and Pierce; 6.3 Smooth Tests for the Exponential Distribution; 6.4 Smooth Tests for Multivariate Normal Distribution
6.5 Smooth Tests for the Bivariate Poisson Distribution6.5.1 Definitions; 6.5.2 Score Tests for the Bivariate Poisson Model; 6.5.3 A Smooth Covariance Test; 6.5.4 Variance Tests; 6.5.5 A Competitor for the Index of Dispersion Test; 6.5.6 Revised Index of Dispersion and Crockett Tests; 6.6 Components of the Rao-Robson X2 Statistic; 7 Neyman Smooth Tests for Categorized Composite Null Hypotheses; 7.1 Neyman Smooth Tests for Composite Multinomials; 7.2 Components of the Pearson-Fisher Statistic; 7.3 Composite Overlapping Cells and Cell Focusing X2 Tests
7.4 A Comparison between the Pearson-Fisher and Rao-Robson X2 Tests8 Neyman Smooth Tests for Uncategorized Composite Null Hypotheses: Discrete Distributions; 8.1 Neyman Smooth Tests for Discrete Uncategorized Composite Null Hypotheses; 8.2 Smooth and EDF Tests for the Univariate Poisson Distribution; 8.2.1 Definitions; 8.2.2 Size and Power Study; 8.2.3 Examples; 8.3 Smooth and EDF Tests for the Binomial Distribution; 8.3.1 Definitions; 8.3.2 Size and Power Study; 8.3.3 Examples; 8.4 Smooth Tests for the Geometric Distribution; 8.4.1 Definitions; 8.4.2 Size and Power Study; 8.4.3 Examples
9 Construction of Generalized Smooth Tests: Theoretical Contributions

Sommario/riassunto

In this fully revised and expanded edition of Smooth Tests of Goodness of Fit, the latest powerful techniques for assessing statistical and probabilistic models using this proven class of procedures are presented in a practical and easily accessible manner. Emphasis is placed on modern developments such as data-driven tests, diagnostic properties, and model selection techniques. Applicable to most statistical distributions, the methodology described in this book is optimal for deriving tests of fit for new distributions and complex probabilistic models, and is a standard against which n