1. Record Nr. UNINA9910876774303321

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Titolo	Smooth tests of goodness of fit / / J.C.W. Rayner, O. Thas, D.J. Best
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, c2009
ISBN	1-282-38215-2 9786612382154 0-470-82444-1 0-470-82443-3
Edizione	[2nd ed. /]
Descrizione fisica	1 online resource (300 p.)
Collana	Wiley series in probability and statistics Smooth tests of goodness of fit using R
Altri autori (Persone)	BestD. J ThasO (Olivier)
Disciplina	519.5/6 519.56
Soggetti	Goodness-of-fit tests Statistical hypothesis testing
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	SMOOTH TESTS OF GOODNESS OF FIT USING R; Contents; Preface; 1 Introduction; 1.1 The Problem Defined; 1.2 A Brief History of Smooth Tests; 1.3 Monograph Outline; 1.4 Examples; 2 Pearson's X2 Test; 2.1 Introduction; 2.2 Foundations; 2.3 The Pearson X2 Test - an Update; 2.3.1 Notation, Definition of the Test, and Class Construction; 2.3.2 Power Related Properties; 2.3.3 The Sample Space Partition Approach; 2.4 X2 Tests of Composite Hypotheses; 2.5 Examples; 3 Asymptotically Optimal Tests; 3.1 Introduction; 3.2 The Likelihood Ratio, Wald, and Score Tests for a Simple Null Hypothesis 3.3 The Likelihood Ratio, Wald and Score Tests for Composite Null Hypotheses3.4 Generalized Score Tests; 4 Neyman Smooth Tests for Simple Null Hypotheses; 4.1 Neyman's 2 test; 4.2 Neyman Smooth Tests for Uncategorized Simple Null Hypotheses; 4.3 The Choice of Order; 4.4 Examples; 4.5 EDF Tests; 5 Categorized Simple Null Hypotheses; 5.1 Smooth Tests for Completely Specified Multinomials; 5.2 X2 Effective Order; 5.3 Components of X2P; 5.3.1 Construction of 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