1. Record Nr. UNINA9910969047003321

Autore	Chipman John Somerset <1926-2022, >
Titolo	Advanced econometric theory / / John S. Chipman
Pubbl/distr/stampa	Abingdon, Oxon : , : Routledge, , 2011
ISBN	1-134-34044-3 1-283-60655-0 9786613919007 1-134-34045-1 0-203-18075-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (409 p.)
Collana	Routledge advanced texts in economics and finance ; ; 14
Disciplina	330.015195
Soggetti	Econometrics Economics, Mathematical
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	Advanced Econometric Theory; Copyright; Contents; List of figures and tables; Preface; 1 Multivariate analysis and the linear regression model; 1.1 Introduction; 1.2 Existence of a solution to the normal equation; 1.3 The concept of wide-sense conditional expectation; 1.4 Conditional expectation with normal variables; 1.5 The relation between wide-sense and strict-sense conditional expectation; 1.6 Conditional means and minimum mean-square error; 1.7 Bayes estimation; 1.8 The relation between Bayes and Gauss-Markov estimation in the case of a single independent variable; 1.9 Exercises 2 Least-squares and Gauss-Markov theory2.1 Least-squares theory; 2.2 Principles of estimation; 2.3 The concept of a generalized inverse of a matrix; 2.4 The matrix Cauchy-Schwarz inequality and an extension; 2.5 Gauss-Markov theory; 2.6 The relation between Gauss-Markov and least-squares estimators; 2.7 Minimum-bias estimation; 2.8 Multicollinearity and the imposition of dummy linear restrictions; 2.9 Specification error; 2.10 Exercises; 3 Multicollinearity and reduced-rank estimation; 3.1 Introduction; 3.2 Singular-value decomposition of a matrix; 3.3 The condition number of a matrix 3.4 The Eckart-Young theorem3.5 Reduced-rank estimation; 3.6

Exercises; 4 The treatment of linear restrictions; 4.1 Estimation subject to linear restrictions; 4.2 Linear aggregation and duality; 4.3 Testing linear restrictions; 4.4 Reduction of mean-square error by imposition of linear restrictions; 4.5 Uncertain linear restrictions; 4.6 Properties of the generalized ridge estimator; 4.7 Comparison of restricted and generalized ridge estimators; 4A Appendix (to Section 4.4): Guide to the computation of percentage points of the noncentral F distribution; 4.8 Exercises; 5 Stein estimation
5.1 Stein's theorem and the regression model5.2 Lemmas underlying the James-Stein theorem; 5.3 Some further developments of Stein estimation; 5.4 Exercises; 6 Autocorrelation of residuals - 1; 6.1 The first-order autoregressive model; 6.2 Efficiency of trend estimation: the ordinary least-squares estimator; 6.3 Efficiency of trend estimation: the Cochrane-Orcutt estimator; 6.4 Efficiency of trend estimation: the Prais-Winsten weighted-difference estimator; 6.5 Efficiency of trend estimation: the Prais-Winsten first-difference estimator; 6.6 Discussion of the literature; 6.7 Exercises
7 Autocorrelation of residuals - 27.1 Anderson models; 7.2 Testing for autocorrelation: Anderson's theorem and the Durbin-Watson test; 7.3 Distribution and beta approximation of the Durbin-Watson statistic; 7.4 Bias in estimation of sampling variances; 7.5 Exercises; 8 Simultaneous-equations estimation; 8.1 The identification problem; 8.2 Anderson and Rubin's "limited-information maximum-likelihood" (LIML) method, 1: the handling of linear restrictions; 8.3 Anderson and Rubin's "limited-information maximum-likelihood" method, 2: constrained maximization of the likelihood function
8.4 The contributions of Basmann and Theil

Sommario/riassunto

When learning econometrics, what better way than to be taught by one of its masters. In this significant new volume, John Chipman, the eminence grise of econometrics, presents his classic lectures in econometric theory.Starting with the linear regression model, least squares, Gauss-Markov theory and the first principals of econometrics, this book guides the introductory student to an advanced stage of ability. The text covers multicollinearity and reduced-rank estimation, the treatment of linear restrictions and minimax estimation. Also included are chapters on the autocorr